



**Manufacturing
Industry Skills
Alliance**

Companion Volume Implementation Guide

Volume 2

Release 5.0

MEM Manufacturing and Engineering Training Package

Contents

Contents	1
What is in this guide?	2
Version control and modification history	3
Qualifications, skill sets and units of competency	5
Appendix 1: MEM units of competency – prerequisites point weighting and banding	7
Appendix 2: MEM Release 5.0 – imported units	151
Appendix 3: Mapping – MEM Release 5.0	163
Appendix 4: Mapping – Industrial Electrician units	264
Appendix 5: AQF certificate level and qualification descriptors	286
Appendix 6: Career pathways	300
Useful links	308

What is in this guide?

This Appendices document is to be used in conjunction with the *Companion Volume Implementation Guide Volume 1: Manufacturing and Engineering Training Package (Release 5.0)* and contains:

- lists of qualifications and units of competency
- prerequisites and points weighting
- mapping information for qualifications and units of competency
- qualification and certificate level descriptors
- career pathways.

Version control and modification history

Version control

Release	Status	Release Date	Approval Process
5.0	Current	04 September 2025	Endorsed
4.0	Superseded	03 February 2023	Endorsed
3.0	Superseded	19 December 2022	Endorsed
2.1	Superseded	31 March 2021	Upgrade (minor release)
2.0	Superseded	26 July 2019	Endorsed
1.2	Superseded	31 May 2016	Upgrade (minor release)
1.1	Superseded	16 June 2015	Upgrade (minor release)
1.0	Superseded	30 April 2015	Endorsed

Modification history details

MEM Release 5.0 – Endorsed changes includes:

- three (3) revised qualifications and ten (10) updated qualifications.
- twenty-four (24) revised units of competency, seven (7) new units of competency and twenty-three (23) updated units of competency.
- one (1) revised skill set.

MEM Release 4.0 – Endorsed changes

Release 4.0 included:

- six (6) new qualifications.
- twenty-eight (28) new units of competency.

Note: The approved components by the AISC originally titled MEM Release 4.0 have been combined with MEM Release 3.0 Transition Project to reduce the number of releases in the MEM Training Package.

MEM Release 3.0 – Endorsed changes

Release 3.0 included:

- one (1) new qualification, sixteen (16) revised qualifications, fourteen (14) updated qualifications.
- three hundred and thirty-three (323) revised units of competency and twenty-seven (27) new units of competency.
- one (1) revised skill set - *Non-Destructive Testing - Level 2 NDT practitioner*.

MEM Release 2.1 – Endorsed changes

Release 2.1 included:

- 13 revised qualifications (mandatory training contract pathway added).
- 94 revised units (quantum of hours of workplace practice removed).

MEM Release 2.0 – Endorsed changes

The MEM Manufacturing and Engineering Training Package Release 2.0 comprises:

- seventeen (17) new qualifications, one (1) updated
- four hundred and forty-six (446) units of competency (introduction of workplace hours)
- fifty-five (55) imported units of competency.

MEM Release 1.2 - ISC Upgrades

Release 1.2 included:

- adjustments to 13 units of competency to reflect changes to Essential Performance Capabilities
- corrected list of prerequisites in *MEM10025 Undertake a capstone assessment*
- updated imported units.

MEM Release 1.1 – ISC Upgrade

Release 1.1 included:

- corrected list of prerequisites in *MEM10025 Undertake a capstone assessment*.

MEM Release 1 - Initial release

Release 1.0 included:

- *MEM31215 Certificate III in Engineering – Industrial Electrician* qualification.

Qualifications, skill sets and units of competency

The MEM Manufacturing and Engineering Training Package Release 5.0 contains:

- 39 AQF aligned qualifications (new qualifications for MEM Release 5.0 are shaded red)
- 797 MEM units of competency (new units for MEM Release 5.0 are shaded red)
- 285 imported units of competency.

MEM Release 5.0 qualifications

MEM Release 5.0		
Code	Title	TGA Qualification Release
MEM10119	Certificate I in Engineering	Release 2
MEM10222	Certificate I in Boating Services	Release 1
MEM20219	Certificate II in Engineering – Production Technology	Release 3
MEM20322	Certificate II in Boating Services	Release 1
MEM20422	Certificate II in Engineering Pathways	Release 1
MEM30119	Certificate III in Engineering - Production Systems	Release 3
MEM30219	Certificate III in Engineering - Mechanical Trade	Release 4
MEM30422	Certificate III in Engineering - Electronic Trade	Release 1
MEM30522	Certificate III in Engineering – Technical	Release 3
MEM30619	Certificate III in Jewellery Manufacture	Release 3
MEM30719	Certificate III in Marine Craft Construction	Release 3
MEM30819	Certificate III in Locksmithing	Release 3
MEM30919	Certificate III in Boating Services	Release 3
MEM31019	Certificate III in Watch and Clock Service and Repair	Release 3
MEM31119	Certificate III in Engineering - Composites Trade	Release 3
MEM31219	Certificate III in Engineering – Industrial Electrician	Release 2
MEM31322	Certificate III in Refrigeration and Air Conditioning	Release 1
MEM31419	Certificate III in Engineering – Fixed and Mobile Plant Mechanic	Release 3
MEM31519	Certificate III in Engineering – Toolmaking Trade	Release 3
MEM31622	Certificate III in Engineering - Patternmaking Trade	Release 1
MEM31719	Certificate III in Engineering – Casting and Moulding Trade	Release 3
MEM31822	Certificate III in Engineering – Textile Mechanic	Release 2
MEM31925	Certificate III in Engineering - Fabrication Trade	Release 1
MEM40119	Certificate IV in Engineering	Release 2
MEM40222	Certificate IV in Boating Services	Release 1
MEM40322	Certificate IV in Advanced Jewellery Manufacture	Release 1
MEM40422	Certificate IV in Engineering Drafting	Release 2
MEM50119	Diploma of Engineering - Advanced Trade	Release 3
MEM50222	Diploma of Engineering – Technical	Release 2
MEM50322	Diploma of Jewellery and Object Design	Release 1
MEM50425	Diploma of Engineering – Non-Destructive Testing	Release 1
MEM50522	Diploma of Engineering - Materials	Release 2
MEM50622	Diploma of Engineering - Prototyping	Release 1
MEM50722	Diploma of Engineering - Planning	Release 1
MEM50822	Diploma of Applied Technologies	Release 1
MEM60122	Advanced Diploma of Engineering	Release 2

MEM60222	Advanced Diploma of Jewellery and Object Design	Release 1
MEM60322	Advanced Diploma of Engineering - Planning	Release 1
MEM80125	Graduate Diploma of Engineering	Release 1

MEM skill sets

Skill sets are defined as single units of competency, or combinations of units of competency, from an endorsed training package that link to a licensing or regulatory requirement, or a defined industry need.

One (1) Skill Set has been revised for MEM Release 5.0.

Code	Title	Comment
MEMSS00003	Non-Destructive Testing – Level 2 NDT practitioner	Release 1

MEM units of competency

A complete list of MEM-coded units of competency are provided in the *Companion Volume Implementation Guide Volume 2: Appendices* in **Appendix 1: MEM units of competency – prerequisites points weighting and banding**.

Note:

- Units of competency revised for MEM Release 5.0 are shaded blue
- Units of competency new to MEM Release 5.0 are shaded red

Appendix 1: MEM units of competency – prerequisites point weighting and banding

The following tables list all current MEM units of competency, their preferences and their points weighting and banding where relevant.

The tables have been organised according to series code number.

- Units revised for **MEM Release 5.0** have codes shaded blue.
- Units new for **MEM Release 5.0** have codes shaded red.

Code	Title	Prerequisites	Points	Banding
MEM03001	Perform manual production assembly	MEM13015 MEM16006	4	A
MEM03002	Perform precision assembly	MEM13015 MEM16006 MEM18001	4	A
MEM03003	Perform sheet and plate assembly	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM03004	Perform electronic/electrical assembly (production)	MEM13015 MEM16006	8	A
MEM03005	Rework and repair (electrical/electronic production)	MEM03004 MEM05001 MEM13015 MEM16006 MEM18001	8	A
MEM03006	Set assembly stations	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM04001	Operate melting furnaces	MEM11011	4	A

		MEM13004 MEM13015 MEM16006		
MEM04002	Perform gravity die casting	MEM11011 MEM13004 MEM13015 MEM16006	2	A
MEM04003	Operate pressure die casting machine	MEM11011 MEM13004 MEM13015 MEM16006	4	A
MEM04004	Prepare and mix sand for metal moulding	MEM11011 MEM13015 MEM16006	4	A
MEM04006	Operate sand moulding and core making machines	MEM11011 MEM13015 MEM16006	8	A
MEM04007	Pour molten metal	MEM11011 MEM13004 MEM13015 MEM16006	4	A
MEM04008	Fettle and trim metal castings/forgings	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM04018	Perform general woodworking machine operations	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	4	A
MEM04019	Perform refractory installation and repair	MEM11011	4	A

		MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM04020	Supervise individual ferrous melting and casting operation	MEM04001 MEM04004 MEM04007 MEM04024 MEM04025 MEM09002 MEM11011 MEM12023 MEM12024 MEM13004 MEM13015 MEM14006 MEM16006 MEM18001	4	B
MEM04021	Supervise individual non-ferrous melting and casting operation	MEM04001 MEM04004 MEM04007 MEM04024 MEM04025 MEM09002 MEM11011 MEM12023 MEM12024 MEM13004 MEM13015	4	B

		MEM14006 MEM16006 MEM18001		
MEM04022	Examine appropriateness of methoding for mould design	MEM04024 MEM04025 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MSATCM304A	4	B
MEM04023	Undertake prescribed tests on foundry-related materials	MEM11011 MEM12024 MEM12026 MEM13015 MEM16006	4	B
MEM04024	Produce moulds and cores by hand	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM04025	Produce moulds and cores by hand (advanced)	MEM04024 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	12	A

		MEM18002		
MEM04026	Develop and manufacture spur gear patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04027	Develop and manufacture bevel gear patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04028	Develop and manufacture chain gear and sprocket patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026	2	A

		MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM04029	Develop and manufacture conveyor screw patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04030	Develop and manufacture propeller patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04031	Develop and manufacture flat back wood patterns	MEM04018 MEM09002 MEM11011	4	A

		MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM04032	Develop and manufacture irregular joint wood patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	3	A
MEM04033	Develop and manufacture turned wood patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001	3	A

		MEM18002		
MEM04034	Develop and manufacture wooden wheel patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM04035	Develop and manufacture pipe patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM04036	Maintain patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026	2	A

		MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM04037	Develop and manufacture split patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04038	Produce polymer patterns	MEM07032 MEM09002 MEM11011 MEM12023 MEM12024 MEM13003 MEM13004 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	A
MEM04039	Assemble plated patterns	MEM04018 MEM09002 MEM11011	8	A

		MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM04040	Develop and manufacture polystyrene patterns	MEM04018 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM04041	Develop and manufacture production patterns	MEM04039 MEM04018 MEM07005 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006	8	A

		MEM16006 MEM18001 MEM18002		
MEM04042	Develop and manufacture vacuum forming moulds and associated equipment	MEM04038 MEM04018 MEM07005 MEM09002 MEM11011 MEM12006 MEM12023 MEM12024 MEM12026 MEM13003 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	6	A
MEM04043	Develop and manufacture precision models	MEM04038 MEM04039 MEM04040 MEM04041 MEM04042 MEM04018 MEM07005 MEM09002 MEM11011 MEM12003 MEM12006 MEM12023 MEM12024 MEM12026	6	A

		MEM13003 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
Code	Title	Prerequisites	Points	Banding
MEM05001	Perform manual soldering/desoldering – electrical/electronic components	MEM11011 MEM13015 MEM16006	4	A
MEM05002	Perform high reliability soldering and desoldering	MEM05001 MEM11011 MEM13015 MEM16006	4	A
MEM05003	Perform soft soldering	MEM11011 MEM13015 MEM16006	2	A
MEM05004	Perform routine oxy fuel gas welding	MEM11011 MEM13015 MEM16006	2	A
MEM05005	Carry out mechanical cutting	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	2	A
MEM05006	Perform brazing and/or silver soldering	MEM11011 MEM13015 MEM16006	2	A
MEM05007	Perform manual heating and thermal cutting	MEM09002 MEM11011 MEM12023 MEM13015	2	A

		MEM16006		
MEM05009	Perform automated thermal cutting	MEM11011 MEM12023 MEM13015 MEM16006	2	A
MEM05010	Apply fabrication, forming and shaping techniques	MEM05037 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	A
MEM05012	Perform routine manual metal arc welding	MEM11011 MEM13015 MEM16006	2	A
MEM05013	Perform manual production welding	MEM11011 MEM13015 MEM16006	2	A
MEM05014	Monitor quality of production welding/fabrications	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A

		Plus, one or more of, including their prerequisites: MEM05004 MEM05012 MEM05049 MEM05050 MEM05056 MEM05057		
MEM05027	Perform aluminothermic welding	MEM11011 MEM13015 MEM16006	2	A
MEM05037	Perform geometric development	MEM09002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	6	A
MEM05038	Perform advanced geometric development - cylindrical/rectangular	MEM05037 MEM09002 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006	2	A
MEM05039	Perform advanced geometric development - conical	MEM05037 MEM09002 MEM12023 MEM12024 MEM12026 MEM13015	2	A

		MEM14006 MEM16006		
MEM05040	Perform advanced geometric development - transitions	MEM05037 MEM09002 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006	4	A
MEM05049	Perform routine gas tungsten arc welding	MEM11011 MEM13015 MEM16006	2	A
MEM05050	Perform routine gas metal arc welding	MEM11011 MEM13015 MEM16006	2	A
MEM05052	Apply safe welding practices	MEM13015 MEM16006	4	A
MEM05056	Perform routine flux core arc welding	MEM11011 MEM13015 MEM16006	2	A
MEM05057	Perform routine submerged arc welding	MEM11011 MEM13015 MEM16006	2	A
MEM05059	Perform advanced welding using submerged arc welding	MEM05007 MEM05052 MEM05057 MEM05085 MEM05093 MEM09002 MEM11011 MEM12023	4	A

		MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM05060	Perform welds to code standards using submerged arc welding process	MEM05007 MEM05052 MEM05057 MEM05059 MEM05061 MEM05062 MEM05065 MEM05068 MEM05078 MEM05085 MEM05093 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	B
MEM05061	Apply basic metallurgy principles to welding applications	MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	8	B

MEM05062	Apply welding and welding related codes and standards	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006	4	B
MEM05063	Write and proof robotic welding system programs	MEM05050 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 Plus either MEM05050 MEM05091 or MEM05049 MEM05092	6	B
MEM05064	Establish and maintain a weld record management system	MEM05061 MEM05078 MEM05085 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	4	B

		Plus one or more of the following units and their prerequisites MEM05060 MEM05079 MEM05080 MEM05081 MEM05082 MEM05083 MEM05088		
MEM05065	Maintain weld records	MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 Plus one or more of the following units and their prerequisites MEM05090 MEM05091 MEM05092 MEM05093 MEM05096 MEM05097	4	A
MEM05066	Develop and maintain welding procedures	MEM05061 MEM05078	6	B

		MEM05085 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 Plus one or more of the following units and their prerequisites MEM05079 MEM05080 MEM05081 MEM05082 MEM05083 MEM05088		
MEM05067	Establish and maintain a welding procedure management system	MEM05061 MEM05078 MEM05085 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 Plus one or more of the following units and their prerequisites MEM05060 MEM05079 MEM05080	6	B

		MEM05081 MEM05082 MEM05083 MEM05088		
MEM05068	Apply welding procedure specifications	MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	B
MEM05069	Undertake advanced weld repair and maintenance	MEM05007 MEM05061 MEM05071 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 Plus one or more of the following units and their prerequisites MEM05072	6	B

		MEM05073 MEM05074 MEM05075 MEM05084		
MEM05070	Write and proof programs for NC/CNC thermal cutting machines	MEM05007 MEM05009 MEM05071 MEM05086 MEM05087 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	6	B
MEM05071	Perform advanced manual thermal cutting, gouging and shaping	MEM05007 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006	2	A
MEM05072	Perform advanced welding using manual metal arc welding process	MEM05007 MEM05012 MEM05052 MEM05085 MEM05090 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006	4	A

		MEM16006 MEM18001 MEM18002		
MEM05073	Perform advanced welding using gas metal arc welding process	MEM05007 MEM05050 MEM05052 MEM05085 MEM05091 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05074	Perform advanced welding using gas tungsten arc welding process	MEM05007 MEM05049 MEM05052 MEM05085 MEM05092 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05075		MEM05004	4	A

	Perform advanced welding using oxy acetylene welding process	MEM05007 MEM05052 MEM05085 MEM05097 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM05076	Perform welding supervision	MEM05061 MEM05062 MEM05065 MEM05066 MEM05068 MEM05078 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	10	B
MEM05077	Perform welding inspection	MEM05061 MEM05062 MEM05065 MEM05066 MEM05068	10	B

		MEM05078 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006		
MEM05078	Apply welding principles	MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	4	This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7.
MEM05079	Perform welds to code standards using flux core arc welding process	MEM05007 MEM05052 MEM05056 MEM05061 MEM05062 MEM05065 MEM05068 MEM05084 MEM05085 MEM05096 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006	8	B

		MEM16006 MEM18001 MEM18002		
MEM05080	Perform welds to code standards using gas metal arc welding process	MEM05007 MEM05050 MEM05052 MEM05061 MEM05062 MEM05065 MEM05068 MEM05073 MEM05078 MEM05085 MEM05091 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	B
MEM05081	Perform welds to code standards using gas tungsten arc welding process	MEM05007 MEM05049 MEM05052 MEM05061 MEM05062 MEM05065 MEM05068 MEM05074 MEM05078	8	B

		MEM05085 MEM05092 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM05082	Perform pipe welds to code standards using manual metal arc welding process	MEM05007 MEM05012 MEM05052 MEM05061 MEM05062 MEM05065 MEM05068 MEM05072 MEM05078 MEM05085 MEM05090 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	B
MEM05083		MEM05007	8	B

	Perform welds to code standards using manual metal arc welding process	MEM05012 MEM05052 MEM05061 MEM05062 MEM05065 MEM05068 MEM05072 MEM05078 MEM05085 MEM05090 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM05084	Perform advanced welding using flux core arc welding process	MEM05007 MEM05052 MEM05056 MEM05085 MEM05096 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A

		MEM18002		
MEM05085	Select welding processes	MEM13015 MEM16006	2	A
MEM05086	Set and edit computer controlled thermal cutting machines	MEM05007 MEM05009 MEM05071 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM16008 MEM18001	4	This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7.
MEM05087	Write basic NC/CNC programs for thermal cutting machines	MEM05007 MEM05009 MEM05071 MEM05086 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM16008 MEM18001	6	B
MEM05088	Perform welds to code standards using oxy fuel gas welding process	MEM05004 MEM05007 MEM05052 MEM05061 MEM05062 MEM05065 MEM05068 MEM05075	8	B

		MEM05078 MEM05085 MEM05097 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002		
MEM05089	Assemble fabricated components	MEM05005 MEM05007 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 Plus, one or more of, including their prerequisites: MEM05090 MEM05091 MEM05092 MEM05097	8	A

MEM05090	Weld using manual metal arc welding process	MEM05012 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05091	Weld using gas metal arc welding process	MEM05050 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05092	Weld using gas tungsten arc welding process	MEM05049 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015	4	A

		MEM14006 MEM16006 MEM18001 MEM18002		
MEM05093	Weld using submerged arc welding process	MEM05052 MEM05057 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05094	Repair, replace and/or modify fabrications	MEM05005 MEM05007 MEM05052 MEM05085 MEM05089 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A

		Plus one or more of the following, including their prerequisites: MEM05090 MEM05091 MEM05092 MEM05096 MEM05097		
MEM05095	Weld using flame powder spraying	MEM05004 MEM05052 MEM05085 MEM05097 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM05096	Weld using flux core arc welding process	MEM05052 MEM05056 MEM05085 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A

		MEM18002		
MEM05097	Weld using oxy fuel gas welding process	MEM05004 MEM05052 MEM05085 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
Code	Title	Prerequisites	Points	Banding
MEM06003	Carry out heat treatment	MEM11011 MEM13015 MEM16006	6	A
MEM06004	Select heat treatment processes and test finished product	MEM06003 MEM11011 MEM13015 MEM16006	6	A
MEM06007	Perform basic incidental heat/quenching, tempering and annealing	MEM11011 MEM13015 MEM16006	2	A
MEM06010	Perform hand forging	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM06011	Perform power hammer forging	MEM11011 MEM13015 MEM16006	4	A
MEM06012	Perform drop and upset forging	MEM06011	4	A

		MEM11011 MEM13015 MEM16006		
MEM06013	Repair springs	MEM06003 MEM06010 MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM06014	Perform power hammer forging of complex shapes	MEM06011 MEM11011 MEM13015 MEM16006	4	A
MEM06015	Hand forge complex shapes	MEM06010 MEM11011 MEM13015 MEM16006	4	A
MEM06016	Perform press forging	MEM11011 MEM13015 MEM16006	4	A
MEM06017	Perform press forging of complex shapes	MEM06016 MEM11011 MEM13015 MEM16006	4	A
Code	Title	Prerequisites	Points	Banding
MEM07001	Perform operational maintenance of machines/equipment	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM07002	Perform precision shaping/planing/slotting operations	MEM07005 MEM09002 MEM11011	4	A

		MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001		
MEM07003	Perform routine machine setting	MEM07024 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	4	A
MEM07004	Perform complex machine setting	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following, including their prerequisites: MEM07006 MEM07007 MEM07008 MEM07013 MEM07025 MEM07026 MEM07027	8	B

		MEM07041		
MEM07005	Perform general machining	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	8	A
MEM07006	Perform lathe operations	MEM07005 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07007	Perform milling operations	MEM07005 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07008	Perform grinding operations	MEM07005 MEM09002 MEM11011 MEM12023 MEM12024	4	A

		MEM13015 MEM14006 MEM16006 MEM18001		
MEM07009	Perform precision jig boring operations	MEM07005 MEM07007 MEM09002 MEM11011 MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07010	Perform tool and cutter grinding operations	MEM07005 MEM07008 MEM09002 MEM11011 MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07011	Perform complex milling operations	MEM07005 MEM07007 MEM09002 MEM11011 MEM12003 MEM12023	4	A

		MEM12024 MEM13015 MEM14006 MEM16006 MEM18001		
MEM07012	Perform complex grinding operations	MEM07005 MEM07008 MEM09002 MEM11011 MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07013	Perform machining operations using horizontal and vertical boring machines	MEM07005 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07014	Perform electro-discharge machining (EDM) operations	MEM07005 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006	4	A

		MEM16006 MEM18001		
MEM07015	Set computer controlled machines and processes	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of following, including their prerequisites: MEM07005 MEM07028	2	A
MEM07016	Set and edit computer controlled machines and processes	MEM07015 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following, including their prerequisites: MEM07005 MEM07028	4	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM07018	Write basic NC and CNC programs	MEM07015 MEM07016	4	B

		MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following, including their prerequisites: MEM07005 MEM07028		
MEM07019	Program NC and CNC machining centre	MEM07015 MEM07016 MEM07018 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following including their prerequisites: MEM07005 MEM07028	2	A
MEM07020	Program multiple spindle and multiple axis NC and CNC machining centre	MEM07015 MEM07016	2	B

		MEM07018 MEM07019 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following including their prerequisites: MEM07005 MEM07028		
MEM07021	Perform complex lathe operations	MEM07005 MEM07006 MEM09002 MEM11011 MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001	4	A
MEM07022	Program CNC wire cut machines	MEM07015 MEM07016 MEM07018 MEM09002 MEM11011	2	B

		MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following including their prerequisites: MEM07005 MEM07028		
MEM07023	Program and set up CNC manufacturing cell	MEM07015 MEM07016 MEM07018 MEM07019 MEM07020 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 Plus one or more of the following including their prerequisites: MEM07005 MEM07028	6	B
MEM07024	Operate and monitor machine and process	MEM11011 MEM13015	4	A

		MEM16006		
MEM07025	Perform advanced machine and process operation	MEM07024 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	6	A
MEM07026	Perform advanced plastic processing	MEM07024 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	6	A
MEM07027	Perform advanced press operations	MEM07024 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	6	A
MEM07028	Operate computer controlled machines and processes	MEM07024 MEM11011 MEM13015 MEM16006	2	A
MEM07029	Perform routine sharpening and maintenance of production tools and cutters	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	4	A
MEM07030	Perform basic metal spinning lathe operations	MEM09002	8	A

		MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002		
MEM07031	Perform complex metal spinning lathe operations	MEM07030 MEM07032 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM07032	Use workshop machines for basic operations	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM07033	Operate and monitor basic boiler	MEM11011 MEM13015 MEM16006	6	A
MEM07039	Write programs for industrial robots	MEM09002 MEM10004 MEM12023 MEM13015 MEM16006 MEM16008	4	B
MEM07040	Set multistage integrated processes	MEM09002 MEM11011 MEM12023 MEM13015	6	A

		MEM14006 MEM16006 MEM16008 MEM18001		
MEM07041	Perform production machining	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	8	A
MEM07042	Undertake corrections and basic maintenance to aluminium extrusion dies and die support systems	MEM07001 MEM07003 MEM07004 MEM07024 MEM07025 MEM07032 MEM07043 MEM07044 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM16006 MEM18001 MEM18002 MEM18003 MEM18055	4	A
MEM07043	Identify causes of faulty aluminium extrusions	MEM09002 MEM11011 MEM12023 MEM12024	6	A

		MEM13015 MEM16006 MEM18001		
MEM07044	Test a new aluminium extrusion die	MEM07043 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM16006 MEM18001 MEM18002	4	A
Code	Title	Prerequisites	Points	Banding
MEM08001	Perform wire, jig and barrel load/unload work	MEM11011 MEM13015 MEM16006	4	A
MEM08002	Pre-treat work for subsequent surface coating	MEM11011 MEM13003 MEM13015 MEM16006	4	A
MEM08003	Perform electroplating operations	MEM07001 MEM08001 MEM11011 MEM13003 MEM13015 MEM16006 MEM18001	6	A
MEM08004	Finish work using wet, dry and vapour deposition methods	MEM08002 MEM11011 MEM13003 MEM13015 MEM16006	4	A

MEM08005	Prepare and produce specialised coatings	MEM08002 MEM11011 MEM13003 MEM13015 MEM16006	4	A
MEM08006	Produce clear and/or coloured and/or sealed anodised films on aluminium	MEM08002 MEM11011 MEM13015 MEM16006	2	A
MEM08007	Control surface finish production and finished product quality	MEM11011 MEM13015 MEM16006	4	A
MEM08008	Operate and control surface finishing waste treatment process	MEM11011 MEM13003 MEM13015 MEM16006	3	A
MEM08009	Make up solutions	MEM11011 MEM13003 MEM13015 MEM16006	2	A
MEM08010	Manually finish/polish materials	MEM11011 MEM13015 MEM16006 MEM18001	6	A
MEM08011	Prepare surfaces using solvents and/or mechanical means	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002	2	A
MEM08012	Prepare surfaces by abrasive blasting (basic)	MEM08016 MEM11011	4	A

		MEM13003 MEM13015 MEM16006		
MEM08013	Prepare surfaces by abrasive blasting (advanced)	MEM08012 MEM08016 MEM11011 MEM13003 MEM13015 MEM16006	4	A
MEM08014	Apply protective coatings (basic)	MEM11011 MEM13003 MEM13015 MEM16006	4	A
MEM08015	Apply protective coatings (advanced)	MEM08014 MEM11011 MEM13003 MEM13015 MEM16006	4	A
MEM08016	Control blast coating by-products, materials and emissions	MEM11011 MEM13003 MEM13015 MEM16006	1	A
MEM08018	Electroplate engineering coatings	MEM07001 MEM08001 MEM08003 MEM11011 MEM13003 MEM13015 MEM16006 MEM18001	6	A
MEM08019	Electroplate protective finishes	MEM07001 MEM08001	6	A

		MEM08003 MEM11011 MEM13003 MEM13015 MEM16006 MEM18001		
MEM08020	Electroplate decorative finishes	MEM07001 MEM08001 MEM08003 MEM11011 MEM13003 MEM13015 MEM16006 MEM18001	6	A
Code	Title	Prerequisites	Points	Banding
MEM09002	Interpret technical drawing	MEM12023 MEM12024 MEM13015 MEM16006	4	A
MEM09003	Prepare basic engineering drawing	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006	8	A
MEM09004	Perform electrical or electronic detail drafting	MEM09002 MEM09003 MEM12023 MEM12024 MEM13015 MEM16006	8	B
MEM09005	Perform basic engineering detail drafting	MEM09002 MEM09003	8	A

		MEM12023 MEM12024 MEM13015 MEM16006		
MEM09006	Perform advanced engineering detail drafting	MEM09002 MEM09003 MEM09005 MEM12023 MEM12024 MEM13015 MEM16006	4	B
MEM09007	Perform advanced mechanical detail drafting	MEM09002 MEM09003 MEM09005 MEM09006 MEM12023 MEM12024 MEM13015 MEM16006	4	B
MEM09008	Perform advanced structural detail drafting	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006	4	B
MEM09009	Create 2-D drawings using computer-aided design system	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006 MEM16008	8	B
MEM09010	Create 3-D models using computer-aided design system	MEM09002 MEM09009	4	B

		MEM12023 MEM12024 MEM13015 MEM16006 MEM16008		
MEM09011	Apply basic engineering design concepts	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006	6	A
MEM09021	Interpret and produce drawings of curved 3-D shapes	MEM12023 MEM12024 MEM13015 MEM16006	4	A
MEM09022	Create 2-D code files using computer-aided manufacturing system	MEM09002 MEM12023 MEM12024 MEM13015 MEM16006 MEM16008	4	A
MEM09023	Create 3-D code files using computer-aided manufacturing system	MEM09002 MEM09022 MEM12023 MEM12024 MEM13015 MEM16006 MEM16008	6	B
MEM09155	Prepare mechanical models for computer-aided engineering (CAE)	MEM23004 MEM23109	-	-
MEM09156	Prepare mechatronic models for computer-aided engineering (CAE)	MEM23004 MEM23109	-	-

		MEM23111 MEM23112		
MEM09157	Perform mechanical engineering design drafting	NIL	-	-
MEM09158	Perform mechatronics engineering design drafting	NIL	-	-
MEM09201	Work effectively in an engineering drafting workplace	NIL	-	-
MEM09202	Produce freehand sketches	NIL	-	-
MEM09203	Measure and sketch site information	NIL	-	-
MEM09204	Produce basic engineering detail drawings	MEM09229	-	-
MEM09205	Produce electrical schematic drawings	MEM09204 MEM09229	-	-
MEM09206	Produce drawings for mechanical services	MEM09204 MEM09229	-	-
MEM09207	Produce drawings for reticulated services	MEM09204 MEM09229	-	-
MEM09208	Detail fasteners and locking devices in mechanical drawings	MEM09204 MEM09229	-	-
MEM09209	Detail bearings, seals and other componentry in mechanical drawings	MEM09204 MEM09229	-	-
MEM09210	Create 3D solid models using computer-aided design (CAD) system	MEM09229 MEM30031	-	-
MEM09211	Produce drawings or models for industrial piping	MEM09204 MEM09229	-	-
MEM09212	Produce detailed drawings of steel to non-steel connections	MEM09204 MEM09229	-	-
MEM09213	Produce schematic drawings for hydraulic and pneumatic fluid power systems	MEM09204 MEM09229	-	-
MEM09214	Perform advanced engineering detail drafting	MEM09204 MEM09229 MEM30012	-	-

MEM09215	Supervise detail drafting projects	MEM09204 MEM09214 MEM09229 MEM30012 MEM30031	-	-
MEM09216	Interpret and produce curved 3D shapes and patterns	NIL	-	-
MEM09217	Prepare plans for pipe and duct fabrication	MEM09229	-	-
MEM09218	Participate in drafting projects for building services	MEM09204 MEM09229	-	-
MEM09219	Prepare drawings for fabricated sheet metal products	MEM09229	-	-
MEM09220	Apply surface modelling techniques to 3D drawings	MEM09229 MEM30031	-	-
MEM09221	Create 3D model assemblies using computer-aided design (CAD) system	MEM09229 MEM30031	-	-
MEM09222	Interpret and maintain or restore original drawings	MEM30032	-	-
MEM09223	Interpret design specifications for structural steel detailing	MEM09229	-	-
MEM09224	Detail bolts and welds for structural steelwork connections	MEM09223 MEM09229	-	-
MEM09225	Detail standardised structural connections	MEM09223 MEM09229	-	-
MEM09226	Detail structural steel members	MEM09223 MEM09229	-	-
MEM09227	Establish structural steel detailing project arrangements	NIL	-	-
MEM09228	Detail ancillary steelwork	MEM09223 MEM09229	-	-
MEM09229	Read and interpret technical engineering drawings	NIL	-	-
Code	Title	Prerequisites	Points	Banding
MEM10002	Terminate and connect electrical wiring	MEM09002 MEM12002	3	A

		MEM13015 MEM16006 MEM18001		
MEM10003	Install and test electrical wiring and circuits up to 1000 volts a.c. and 1500 volts d.c.	MEM09002 MEM10002 MEM12002 MEM12023 MEM18001 MEM18002 MEM18049	12	A
MEM10004	Enter and change programmable controller operational parameters	MEM09002 MEM13015 MEM16006 MEM16008	2	A
MEM10005	Commission programmable controller programs	MEM09002 MEM10004 MEM13015 MEM16006 MEM16008	4	A
MEM10006	Install machine/plant	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18009 MEM18055	4	A

MEM10007	Modify control systems	Path 1	6	B
		MEM09002		
		MEM11011		
		MEM12002		
		MEM12003		
		MEM12023		
		MEM12024		
		MEM12025		
		MEM13015		
		MEM14006		
		MEM16006		
		MEM16010		
		MEM18001		
		MEM18002		
		MEM18003		
		MEM18006		
		MEM18018		
		MEM18019		
		MEM18020		
		MEM18021		
		MEM18022		
		MEM18023		
		MEM18053		
		MEM18055		
		Path 2		
		MEM05001		
		MEM09002		
		MEM11011		
		MEM12004		
		MEM12023		
		MEM12024		
		MEM13015		

	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18054	
	MEM18055	
	MEM18057	
	MEM18060	
	MEM18062	
	MEM18067	
	Path 3	
	MEM05001	
	MEM05002	
	MEM09002	
	MEM11011	
	MEM12004	
	MEM12023	
	MEM12024	
	MEM13015	
	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18056	
	MEM18057	
	MEM18058	
	MEM18059	
	MEM18065	
	Path 4	
	MEM09002	
	MEM11011	
	MEM12002	

	MEM12023	
	MEM12024	
	MEM13015	
	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18055	
	MEM18086	
	MEM18088	
	MEM18092	
	Path 5	
	MEM09002	
	MEM11011	
	MEM12002	
	MEM12023	
	MEM12024	
	MEM13015	
	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18055	
	MEM18086	
	MEM18090	
	MEM18092	
	Path 6	
	MEM09002	
	MEM11011	
	MEM12002	
	MEM12023	
	MEM12024	

		MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086 MEM18089 MEM18090 MEM18093 Path 7 MEM09002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 MEM18060 MEM18062 MEM18064 MEM18067		
MEM10008	Undertake commissioning procedures for plant and/or equipment	Path 1 MEM09002 MEM10006 MEM11011 MEM12023	4	B

	MEM12024	
	MEM13015	
	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18003	
	MEM18006	
	MEM18009	
	MEM18055	
	Path 2	
	MEM09002	
	MEM11011	
	MEM12002	
	MEM12023	
	MEM12024	
	MEM13015	
	MEM14006	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18055	
	MEM18086	
	MEM18090	
	Path 3	
	MEM09002	
	MEM11011	
	MEM12002	
	MEM12023	
	MEM12024	
	MEM13015	
	MEM14006	

		MEM16006 MEM18001 MEM18002 MEM18055 MEM18089		
MEM10009	Install refrigeration and air conditioning plant and equipment	MEM05006 MEM09002 MEM10010 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086	4	A
MEM10010	Install pipework and pipework assemblies	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM10011	Terminate and connect specialist cables	MEM09002 MEM10002 MEM11011 MEM12002 MEM13015 MEM16006 MEM18001	3	A
MEM10012	Erect structures	MEM05007 MEM05052	4	A

		MEM05085 MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 Plus one or both of the following, including their prerequisites: MEM05090 MEM05091		
MEM10013	Install split air conditioning systems and associated pipework	MEM05006 MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	A
MEM10016	Terminate and test electrical wiring and accessories	MEM10018 MEM18001	4	A
MEM10018	Select cable types and sizes to suit loads and electrical installation environment	Nil	4	A
MEM10019	Select circuit protection devices by type and rating, fit to switchboards and install earthing	MEM10016 MEM10018 MEM18001	2	A

MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	MEM10016 MEM10018 MEM10019 MEM10023 MEM10024 MEM18001	4	A
MEM10021	Inspect, test and verify electrical installations	MEM10016 MEM10018 MEM10019 MEM10020 MEM10022 MEM10023 MEM10024 MEM12023 MEM18001 MEM18100 MEM18102 MEM18103 MEM18104	4	A
MEM10022	Commission and decommission high and low voltage equipment or installations	Nil	2	A
MEM10023	Design and connect control switching of circuits for building services and industrial equipment	MEM10016 MEM10018 MEM10019 MEM18001	4	A
MEM10024	Install and troubleshoot luminaires and ancillary equipment	MEM10016 MEM10018 MEM10019 MEM10023 MEM18001	2	A
MEM10025	Undertake a capstone assessment	MEM10016 MEM10018	1	A

		MEM10019 MEM10020 MEM10021 MEM10022 MEM10023 MEM10024 MEM12023 MEM13015 MEM13017 MEM17003 MEM18001 MEM18100 MEM18102 MEM18103 MEM18104 UEENEEE101A UEENEEE104A UEENEEE107A UEENEEG102A		
Code	Title	Prerequisites	Points	Banding
MEM11001	Erect/dismantle scaffolding and equipment	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM11002	Erect/dismantle intermediate scaffolding and equipment	MEM11001 MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM11003	Coordinate erection/dismantling of complex scaffolding/equipment	MEM11001 MEM11002 MEM11011	4	A

		MEM13015 MEM16006 MEM18001		
MEM11004	Undertake dogging	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM11005	Pick and process order	MEM11011 MEM13015 MEM16006	4	A
MEM11006	Perform production packaging	MEM11011 MEM13015 MEM16006	2	A
MEM11007	Administer inventory procedures	MEM13015 MEM16006	4	A
MEM11008	Package materials (stores and warehouse)	MEM11011 MEM13015 MEM16006	2	A
MEM11009	Handle/move bulk fluids/gases	MEM11011 MEM13015 MEM16006	4	A
MEM11010	Operate mobile load shifting equipment	MEM11011 MEM13015 MEM16006	4	A
MEM11011	Undertake manual handling	MEM13015 MEM16006	2	A
MEM11012	Purchase materials	MEM11011 MEM13015 MEM16006	6	A
MEM11013	Undertake warehouse receival process	MEM11011 MEM13015 MEM16006	4	A

MEM11014	Undertake warehouse dispatch process	MEM11008 MEM11011 MEM13015 MEM16006	4	A
MEM11015	Manage warehouse inventory system	MEM11007 MEM13015 MEM16006	6	A
MEM11016	Order materials	MEM13015 MEM16006	2	A
MEM11017	Organise and lead stocktakes	MEM11007 MEM11011 MEM13015 MEM16006	4	A
MEM11018	Organise and maintain warehouse stock receipt and dispatch system	MEM11008 MEM11011 MEM13015 MEM16006 Plus one of the following, including their prerequisites: MEM11013 MEM11014	6	A
MEM11019	Undertake tool store procedures	MEM11007 MEM11011 MEM11013 MEM12024 MEM13015 MEM16006	4	A
MEM11020	Perform advanced warehouse computer operations	MEM13015 MEM16006 MEM16008	4	A
MEM11021		MEM11010	2	A

	Perform advanced operation of load shifting equipment	MEM11011 MEM13015 MEM16006		
MEM11022	Operate fixed/moveable load shifting equipment	MEM11011 MEM13015 MEM16006	4	A
MEM11023	Operate a bridge and gantry crane	MEM11011 MEM13015 MEM16006	4	A
MEM11024	Undertake basic rigging	MEM11004 MEM11011 MEM13015 MEM16006	4	A
MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity	MEM11011 MEM13015 MEM16006	4	A
Code	Title	Prerequisites	Points	Banding
MEM12001	Use comparison and basic measuring devices	MEM11011 MEM13015 MEM16006	2	A
MEM12002	Perform electrical/electronic measurement	MEM11011 MEM13015 MEM16006	2	A
MEM12003	Perform precision mechanical measurement	MEM11011 MEM12023 MEM13015 MEM16006	2	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM12004	Perform precision electrical/electronic measurement	MEM11011	4	This unit has dual status and is to be regarded

		MEM12023 MEM13015 MEM16006		as both a specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM12005	Calibrate measuring equipment	Path 1 MEM11011 MEM12003 MEM12023 MEM13015 MEM16006 Path 2 MEM11011 MEM12002 MEM12023 MEM13015 MEM16006	6	B
MEM12006	Mark off/out (general engineering)	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	4	A
MEM12007	Mark off/out structural fabrications and shapes	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	4	A

MEM12019	Measure components using coordinate measuring machines	MEM13015 MEM16006	4	A
MEM12020	Set and operate coordinate measuring machines	MEM13015 MEM16006	2	A
MEM12021	Program coordinate measuring machines	MEM09002 MEM12003 MEM12023 MEM13015 MEM16006	4	A
MEM12022	Program coordinate measuring machines (advanced)	MEM09002 MEM12003 MEM12023 MEM13015 MEM16006	2	A
MEM12023	Perform engineering measurements	MEM13015 MEM16006	5	A
MEM12024	Perform computations	MEM13015 MEM16006	3	A
MEM12025	Use graphical techniques and perform simple statistical computations	MEM12024 MEM13015 MEM16006	2	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).
MEM12026	Perform advanced trade calculations in a manufacturing, engineering or related environment	MEM12024 MEM13015 MEM16006	4	B
Code	Title	Prerequisites	Points	Banding
MEM13001	Perform emergency first aid	MEM11011 MEM13015 MEM16006	1	A

MEM13003	Work safely with industrial chemicals and materials	MEM11011 MEM13015 MEM16006	2	A
MEM13004	Work safely with molten metals/glass	MEM11011 MEM13015 MEM16006	2	A
MEM13006	Collect and evaluate work health and safety data for an enterprise or section of an enterprise	MEM11011 MEM13015 MEM16006	4	A
MEM13007	Maintain water treatment systems for cooling towers	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM13015	Work safely and effectively in manufacturing and engineering	NIL	2	A
MEM13016	Work in hazardous areas	MEM13015	2	A
MEM13017	Apply safety practices, procedures and compliance standards associated with licensed electrical work	MEM13015	2	A
MEM13018	Work safely with ionizing radiation	NIL	4	A
MEM13019	Undertake work health and safety activities in the workplace	NIL	3	A
MEM13020	Supervise work health and safety in an industrial work environment	MEM13019	4	B
Code	Title	Prerequisites	Points	Banding
MEM14001	Schedule material deliveries	MEM13015 MEM16006	8	B
MEM14002	Undertake basic process planning	MEM13015 MEM16006	8	B
MEM14003	Undertake production scheduling	MEM13015 MEM16006	8	B
MEM14006	Plan work activities	MEM13015 MEM16006	4	A
MEM14085	Apply mechanical engineering analysis techniques	MEM23004	-	-

		MEM23109		
MEM14086	Apply mechatronic engineering analysis techniques	MEM23004 MEM23111 MEM23112 MEM14090	-	-
MEM14087	Apply manufactured product design techniques	MEM14089 MEM23004 MEM23063 MEM23109	-	-
MEM14088	Apply maintenance engineering techniques to equipment and component repairs and modifications	MEM14092 MEM23004	-	-
MEM14089	Integrate mechanical fundamentals into an engineering task	MEM23004 MEM23109	-	-
MEM14090	Integrate mechatronic fundamentals into an engineering task	MEM23004 MEM23111 MEM23112	-	-
MEM14091	Integrate manufacturing fundamentals into an engineering task	MEM23004	-	-
MEM14092	Integrate maintenance fundamentals into an engineering task	MEM23004	-	-
Code	Title	Prerequisites	Points	Banding
MEM15001	Perform basic statistical quality control	MEM12024 MEM13015 MEM16006	2	A
MEM15003	Use improvement processes in team activities	MEM13015 MEM16006	4	A
MEM15004	Perform inspection	MEM11011 MEM13015 MEM16006	2	A
MEM15005	Select and control inspection processes and procedures	MEM11011 MEM13015 MEM15004	4	A

		MEM16006		
MEM15007	Conduct product and/or process capability studies	MEM12024 MEM12025 MEM13015 MEM15001 MEM15008 MEM16006	6	B
MEM15008	Perform advanced statistical quality control	MEM12024 MEM12025 MEM13015 MEM15001 MEM16006	2	B
MEM15010	Perform laboratory procedures	MEM11011 MEM13015 MEM16006	8	B
MEM15011	Exercise external quality assurance	MEM11011 MEM13015 MEM15004 MEM15005 MEM16006	6	B
MEM15012	Maintain/supervise the application of quality procedures	MEM12024 MEM12025 MEM13015 MEM15001 MEM16006	4	B
MEM15015	Examine trading practices	MEM11011 MEM12023 MEM13015 MEM16006	5	B
MEM15016	Inspect pre-packed articles	MEM11011 MEM13003 MEM13015	8	B

		MEM16006		
MEM15017	Use and maintain reference standards	MEM11011 MEM12003 MEM12004 MEM12005 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	3	B
MEM15018	Investigate consumer complaints	MEM11011 MEM12023 MEM13015 MEM15004 MEM15005 MEM15015 MEM15016 MEM16004 MEM16006 MEM18001	6	B
MEM15019	Conduct a field inspection	MEM09002 MEM11011 MEM12003 MEM12004 MEM12005 MEM12023 MEM13003 MEM13015 MEM15004 MEM15005 MEM15015 MEM15016	12	B

		MEM15017 MEM15018 MEM16002 MEM16004 MEM16006 MEM18001 MEM18002		
MEM15020	Perform inspection of measuring instruments	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	12	B
MEM15021	Conduct audits of servicing licensees and public weighbridge licensees	MEM09002 MEM11011 MEM13015 MEM16004 MEM16006 MEM18001	4	B
MEM15022	Verify reference standards	MEM09002 MEM11011 MEM12003 MEM12023 MEM13015 MEM16006 MEM18001	8	B
Code	Title	Prerequisites	Points	Banding
MEM16001	Give formal presentations and take part in meetings	MEM13015 MEM16006	2	B
MEM16002	Conduct formal interviews and negotiations	MEM13015 MEM16006	4	A
MEM16003	Provide advanced customer service	MEM13015	2	B

		MEM16006		
MEM16004	Perform internal/external customer service	MEM13015 MEM16006	2	A
MEM16005	Operate as a team member to conduct manufacturing, engineering or related activities	MEM11011 MEM13015 MEM16006	2	A
MEM16006	Organise and communicate information	MEM13015	2	A
MEM16008	Interact with computing technology	MEM13015 MEM16006	2	A
MEM16009	Research and analyse engineering information	MEM13015 MEM16006 MEM16012	2	B
MEM16010	Write reports	MEM14006 MEM13015 MEM16006	2	B
MEM16011	Communicate with individuals and small groups	MEM13015 MEM16006	2	B
MEM16012	Interpret technical specifications and manuals	MEM13015 MEM16006	4	B
MEM16013	Operate in a self-directed team	MEM13015 MEM16006	2	B
MEM16014	Report technical information	MEM13015 MEM16006	2	B
Code	Title	Prerequisites	Points	Banding
MEM17001	Assist in development and deliver training in the workplace	MEM13015 MEM16006	2	B
MEM17002	Conduct workplace assessment	MEM11011 MEM13015 MEM16006	2	B
MEM17003	Assist in the provision of on-the-job training	MEM13015 MEM16006	2	A
Code	Title	Prerequisites	Points	Banding

MEM18001	Use hand tools	MEM11011 MEM13015 MEM16006	2	A
MEM18002	Use power tools/hand held operations	MEM11011 MEM13015 MEM16006	2	A
MEM18003	Use tools for precision work	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM18004	Maintain and overhaul mechanical equipment	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18005 MEM18006 MEM18007 MEM18009 MEM18011 MEM18055	4	A
MEM18005	Perform fault diagnosis, installation and removal of bearings	MEM09002 MEM11011 MEM12023 MEM12024	4	A

		MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055		
MEMM18006	Perform precision fitting of engineering components	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18055	6	A
MEM18007	Maintain and repair mechanical drives and mechanical transmission assemblies	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055	4	A
MEM18008	Balance equipment	MEM09002	2	A

		MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055		
MEM18009	Perform precision levelling and alignment of machines and engineering components	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055	4	A
MEM18010	Perform equipment condition monitoring and recording	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	B

MEM18011	Shut down and isolate machines/equipment	MEM11011 MEM13015 MEM16006	2	This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18012	Perform installation and removal of mechanical seals	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055	2	A
MEM18013	Perform gland packing	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	2	A
MEM18014	Manufacture press tools and gauges	MEM06007 MEM07005 MEM07006 MEM07007 MEM07008 MEM09002 MEM11011 MEM12003	8	A

		MEM12006 MEM12023 MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18015 MEM18055		
MEM18015	Maintain tools and dies	MEM06007 MEM07005 MEM07006 MEM07007 MEM07008 MEM09002 MEM11011 MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055	4	A
MEM18016		MEM09002	4	B

	Analyse plant and equipment condition monitoring results	MEM11011 MEM12003 MEM12023 MEM12024 MEM12025 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055		
MEM18017	Modify mechanical systems and equipment	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18005 MEM18006 MEM18007 MEM18009 MEM18011 MEM18055	8	B
MEM18018	Maintain pneumatic system components	MEM09002 MEM11011 MEM12023	4	A

		MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055		
MEM18019	Maintain pneumatic systems	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18018 MEM18055	4	B
MEM18020	Maintain hydraulic system components	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003	4	A

		MEM18006 MEM18055		
MEM18021	Maintain hydraulic systems	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18020 MEM18055	4	B
MEM18022	Maintain fluid power controls	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055 Plus one or more of the following, including their prerequisites: MEM18019 MEM18021	8	B

MEM18023	Modify fluid power system operation	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18018 MEM18019 MEM18020 MEM18021 MEM18022 MEM18055	8	B
MEM18045	Fault find and repair electrical equipment/components up to 250 volts single phase supply	MEM09002 MEM10002 MEM12002 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM18046	Fault find and repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	MEM09002 MEM10002 MEM12002 MEM12023 MEM13015 MEM16006	10	A

		MEM18001 MEM18002 MEM18055		
MEM18048	Fault find and repair/rectify basic electrical circuits	MEM09002 MEM11011 MEM10002 MEM10003 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18049	12	A
MEM18049	Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	MEM09002 MEM10002 MEM12002 MEM13015 MEM16006 MEM18001	3	This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18050	Disconnect/reconnect fixed wired equipment over 1000 volts a.c./1500 volts d.c.	MEM09002 MEM10002 MEM12002 MEM13015 MEM16006 MEM18001	3	This unit has dual status and is to be regarded as both a specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18051	Fault find and repair/rectify complex electrical circuits	MEM09002 MEM11011	6	A

		MEM10002 MEM10003 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18048 MEM18049		
MEM18053	Modify fluid power control systems	MEM09002 MEM11011 MEM12023 MEM12024 MEM12025 MEM13015 MEM14006 MEM16006 MEM16010 MEM18001 MEM18002 MEM18003 MEM18006 MEM18018 MEM18019 MEM18020 MEM18021 MEM18022 MEM18023 MEM18055	6	B

MEM18054	Fault find, test and calibrate instrumentation systems and equipment	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 Plus one or more of the following, including their prerequisites: MEM18057 MEM18064	8	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18055	Dismantle, replace and assemble engineering components	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	3	A
MEM18056	Diagnose and repair analog equipment and components	MEM05001 MEM09002 MEM11011 MEM12004 MEM13015 MEM16006 MEM18001 MEM18057	10	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18057	Maintain/service analog/digital electronic equipment	MEM05001 MEM09002 MEM11011	6	A

		MEM12004 MEM13015 MEM16006 MEM18001		
MEM18058	Modify electronic equipment	MEM05001 MEM09002 MEM11011 MEM12004 MEM13015 MEM16006 MEM18001 MEM18002 MEM18056 MEM18057 MEM18065	4	B
MEM18059	Modify electronic systems	MEM05001 MEM09002 MEM11011 MEM12004 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18056 MEM18057 MEM18058 MEM18065	4	B
MEM18060	Maintain, repair control instrumentation - single and multiple loop control systems	MEM05001 MEM09002 MEM11011 MEM12004	8	B

		MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 MEM18062 Plus one or more of the following, including their prerequisites: MEM18057 MEM18064		
MEM18061	Maintain/calibrate complex control systems	Path 1: MEM05001 MEM09002 MEM11011 MEM12004 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 MEM18057 MEM18062 MEM18069 Path 2: MEM09002 MEM11011	8	B

	MEM12002	
	MEM12023	
	MEM13015	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18054	
	MEM18055	
	MEM18064	
	MEM18069	
	Path 3:	
	MEM05001	
	MEM09002	
	MEM11011	
	MEM12004	
	MEM12023	
	MEM13015	
	MEM16006	
	MEM18001	
	MEM18002	
	MEM18054	
	MEM18055	
	MEM18057	
	MEM18060	
	MEM18062	
	MEM18067	
	Path 4:	
	MEM09002	
	MEM11011	
	MEM12002	
	MEM12023	
	MEM13015	

		MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 MEM18060 MEM18062 MEM18064 MEM18067		
MEM18062	Install, maintain and calibrate instrumentation sensors, transmitters and final control elements	Path 1: MEM05001 MEM09002 MEM11011 MEM12004 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 MEM18057 Path 2: MEM09002 MEM11011 MEM12002 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054	8	B

		MEM18055 MEM18064		
MEM18063	Terminate signal and data cables	MEM05001 MEM09002 MEM11011 MEM12002 MEM12023 MEM13015 MEM16006 MEM18001	4	A
MEM18064	Maintain instrumentation system components	MEM09002 MEM11011 MEM12002 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	A
MEM18065	Diagnose and repair digital equipment and components	MEM05001 MEM09002 MEM11011 MEM12004 MEM13015 MEM16006 MEM18001 MEM18057	10	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM18066	Diagnose and repair microprocessor-based equipment	MEM05001 MEM09002 MEM11011 MEM12004	6	B

		MEM12023 MEM13015 MEM16006 MEM18001 MEM18057 MEM18065		
MEM18067	Tune control loops - multi controller or multi element systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 Plus one or more of the following, including their prerequisites: MEM18062 MEM18064	6	B
MEM18069	Maintain, repair instrumentation process control analysers	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18054 MEM18055 Plus one or more of the following	6	B

		including their prerequisites: MEM18062 MEM18064		
MEM18070	Modify complex electrical circuits and systems	MEM09002 MEM10002 MEM10003 MEM11011 MEM12002 MEM12004 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18048 MEM18049 MEM18051	6	B
MEM18071	Connect and disconnect fluid conveying system components	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001	2	A
MEM18072	Manufacture fluid conveying conductor assemblies	MEM05006 MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM18083		MEM13015	1	A

	Handle fluorocarbon refrigerants according to regulations	MEM16006		
MEM18084	Commission and decommission split air conditioning systems	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM18085	Install, service and repair domestic air conditioning and refrigeration appliances	MEM05006 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	A
MEM18086	Test, recover, evacuate and charge refrigeration systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM18087	Service and repair domestic and light commercial refrigeration and air conditioning equipment	MEM05006 MEM09002 MEM11011	6	A

		MEM12002 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086		
MEM18088	Maintain and repair commercial air conditioning systems and components	MEM09002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086	4	A
MEM18089	Maintain and repair central air handling systems	MEM09002 MEM10002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18049	6	A

		MEM18055 MEM18086		
MEM18090	Maintain and repair industrial refrigeration systems and components	MEM05006 MEM09002 MEM10002 MEM10010 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18049 MEM18055 MEM18086	6	A
MEM18091	Maintain and repair multistage, cascade and/or ultra-cold industrial refrigeration systems	MEM09002 MEM10002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18049 MEM18055 MEM18086	4	B

		Plus one or more of the following including prerequisites: MEM18088 MEM18090		
MEM18092	Maintain and repair commercial and/or industrial refrigeration and/or air conditioning controls	MEM09002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086 Plus one or more of the following including prerequisites: MEM18088 MEM18090	6	B
MEM18093	Maintain and repair integrated industrial refrigeration and/or large air handling system controls	MEM09002 MEM10002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	8	B

		MEM18001 MEM18002 MEM18049 MEM18055 MEM18086 Plus one or more of the following including prerequisites: MEM18090 MEM18089		
MEM18094	Service and repair commercial refrigeration	MEM09002 MEM10002 MEM11011 MEM12002 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18049 MEM18055 MEM18086	6	A
MEM18095	Maintain and repair cooling towers/evaporative condensers and associated equipment	MEM05006 MEM09002 MEM11011 MEM12002 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	4	A

		MEM18001 MEM18002 MEM18055 MEM18086 Plus one or more of the following including prerequisites: MEM18088 MEM18094		
MEM18096	Maintain, repair/replace and adjust refrigerant flow controls and associated equipment	MEM05006 MEM10010 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18055 MEM18086	6	A
MEM18097	Manufacture cavity dies	MEM06007 MEM07005 MEM07006 MEM07007 MEM07008 MEM09002 MEM11011 MEM12003 MEM12006 MEM12023	8	A

		MEM12024 MEM12026 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18015 MEM18055		
MEM18098	Prepare to perform work associated with fuel system installation and servicing	MEM09002 MEM11011 MEM13015 MEM16006	2	A
MEM18100	Fault-find, test and rectify AC machines and circuits	MEM10016 MEM10018 MEM10019 MEM10023 MEM12023 MEM18001 MEM18104	4	A
MEM18102	Fault-find, test and rectify single and three-phase transformers	MEM10016 MEM10018 MEM10019 MEM12023 MEM18001 MEM18104	4	A
MEM18103	Fault-find, test and rectify electrical circuits and equipment	MEM10016 MEM10018 MEM10019 MEM12023	4	A

		MEM18001 MEM18100 MEM18102 MEM18104		
MEM18104	Dismantle, replace and assemble electrical components and equipment	MEM12023 MEM18001	3	A
MEM18105	Disconnect and reconnect high voltage fixed wired equipment	MEM10016 MEM10018 MEM18001	3	This unit has dual status and is to be regarded as both a specialisation band A unit and Specialisation band B unit for progression to C7 (AQF level IV).
MEM18106	Terminate communication and data cables	MEM05001 MEM12023 MEM18001	4	A
MEM18108	Troubleshoot analog and digital electronic equipment	MEM12023 MEM18001 MEM18104	4	A
MEM18109	Troubleshoot instrumentation systems and equipment	MEM12023 MEM18001 MEM18104 MEM18108	4	A
MEM18110	Perform basic penetrant testing	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM18111	Perform basic magnetic particle testing	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM18112	Perform basic eddy current testing	MEM11011	2	A

		MEM13015 MEM16006 MEM18001		
MEM18113	Perform ultrasonic thickness testing	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM18114	Perform basic radiographic testing	MEM11011 MEM13018 MEM13015 MEM16006 MEM18001	2	A
Code	Title	Prerequisites	Points	Banding
MEM19001	Perform jewellery metal casting	MEM13004 MEM13015 MEM16006	6	A
MEM19002	Prepare jewellery illustrations	MEM13015 MEM16006	4	A
MEM19003	Handle gem materials	MEM13015 MEM16006	2	A
MEM19004	Handle and examine gemstone materials	MEM13015 MEM16006 MEM19003	6	A
MEM19005	Produce three-dimensional precision items	MEM11011 MEM13003 MEM13004 MEM13015 MEM16006 MEM18001 MEM18002 MEM18003	8	A
MEM19006	Replace watch batteries	MEM11011	1	A

		MEM13015 MEM16006 MEM18001		
MEM19007	Perform gemstone setting	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18003 MEM19003	6	A
MEM19008	Prepare jewellery designs	MEM11011 MEM13015 MEM16006	6	A
MEM19009	Perform investment procedures for lost wax casting process	MEM11011 MEM12024 MEM13015 MEM16006 MEM18001 Plus one or more of the following including their prerequisites: MEM07024 MEM13003	1	A
MEM19010	Produce rubber moulds for lost wax casting process	MEM13015 MEM16006	2	A
MEM19011	Perform wax injection of moulds for lost wax casting process	MEM13015 MEM16006	2	A
MEM19012	Produce jewellery wax model	MEM11011 MEM13015 MEM16006	4	A

		MEM18001 MEM18002 MEM18003		
MEM19013	Produce jewellery metal masters	MEM08010 MEM13004 MEM13015 MEM16006 MEM19001	4	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).
MEM19014	Perform hand engraving	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM19015	Perform jewellery enamelling	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001	4	A
MEM19016	Construct jewellery components	MEM05006 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	4	A
MEM19017	Fabricate jewellery items	MEM05006 MEM06007 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	6	A

MEM19018	Repair jewellery items	MEM05006 MEM11011 MEM12023 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002 MEM19001 MEM19003 MEM19016 MEM19017	6	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).
MEM19020	Fault find and maintain micro-mechanisms	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM19021	Diagnose and service micro-mechanisms	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM19020	6	A
MEM19022	Perform precision micro-mechanism diagnosis and servicing	MEM07005 MEM09002 MEM11011	6	A

		MEM12003 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18003 MEM18055 MEM19020 MEM19021		
MEM19023	Apply drawing and rendering techniques to jewellery or object design	MEM13015 MEM16006	4	A
MEM19024	Use computer-aided design (CAD) to create and display 3D jewellery or object models	MEM13015 MEM16006	4	A
MEM19025	Create and present designs for jewellery or other 3D objects	MEM13015 MEM16006	4	A
MEM19026	Investigate quality and application of jewellery materials	MEM13015 MEM16006	2	A
MEM19027	Produce life drawings for presenting jewellery or object designs	MEM13015 MEM16006 MEM19023	-	-
MEM19028	Select materials and new technologies for jewellery or 3D object design applications	MEM13015 MEM16006	2	A
MEM19029	Produce a professional jewellery design or 3D object portfolio	MEM13015 MEM16006	-	-
MEM19030	Research and recommend sustainable design improvements	MEM13015 MEM16006	-	-
MEM19031	Produce renderings and technical drawings for jewellery or object design construction	MEM13015 MEM16006	2	A
MEM19032	Design and implement mechanisms in jewellery items	MEM13015 MEM16006	-	-
MEM19033	Create silversmithing objects	MEM13015	4	A

		MEM16006		
MEM19034	Apply chain manufacture process	MEM13015 MEM16006	2	A
MEM19035	Plan and apply casting techniques for jewellery or object designs	MEM13015 MEM16006	4	A
MEM19036	Use specialised techniques to produce jewellery or objects	MEM13015 MEM16006	-	-
MEM19037	Plan and implement chenier fabrication process	MEM13015 MEM16006	2	A
MEM19038	Apply traditional techniques to jewellery or 3D object production	MEM13015 MEM16006	4	A
MEM19039	Plan, conduct and supervise a jewellery or object exhibition or program	MEM13015 MEM16006	-	-
MEM19040	Create and manufacture jewellery or object design prototypes for the mass market	MEM13015 MEM16006	-	-
MEM19041	Experiment with jewellery or object designs	MEM13015 MEM16006	-	-
MEM19042	Render images using computer graphics software	MEM13015 MEM16006 MEM19024	-	-
MEM19043	Oversee jewellery or object design production	MEM13015 MEM16006	-	-
MEM19044	Repair and restore antique jewellery	MEM13015 MEM16006	4	A
MEM19045	Set gems in channel style settings	MEM13015 MEM16006	4	A
MEM19046	Apply grain setting techniques	MEM13015 MEM16006	4	A
MEM19047	Set gems in claw and bezel style settings	MEM13015 MEM16006	4	A
MEM19048	Develop and apply complex borders and decorations for hand engraving	MEM13015 MEM16006	4	B

MEM19049	Develop and apply heraldic designs for hand engraving	MEM13015 MEM16006	2	A
MEM19050	Hand carve engraving work	MEM13015 MEM16006	4	B
MEM19051	Construct multiple stone settings	MEM13015 MEM16006 MEM19045 MEM19047	4	B
MEM19052	Produce complex objects using silversmithing techniques	MEM13015 MEM16006 MEM19033	4	A
MEM19053	Create complex findings and mechanisms for jewellery items	MEM13015 MEM16006 MEM19005 MEM19017	4	A
MEM19054	Fabricate platinum jewellery items	MEM13015 MEM16006	4	A
MEM19057	Research the gemstone market and complete pre-cutting processes	MEM13015 MEM16006	3	A
MEM19058	Cut and polish solid gemstones	MEM13015 MEM16006 MEM19057	8	B
MEM19059	Complete pre-cutting processes for gemstone assemblies	MEM13015 MEM16006	3	A
MEM19060	Cut and polish a gemstone assembly	MEM13015 MEM16006 MEM19059	8	A
MEM19061	Carve and polish gemstones	MEM13015 MEM16006	8	B
MEM19062	Production cut and polish gemstones	MEM13015 MEM16006	4	A
MEM19063	Use a faceting machine	MEM13015	4	B

		MEM16006		
MEM19064	Cut gemstone spheres and beads	MEM13015 MEM16006	3	B
MEM19065	Obtain rough and polished gemstones	MEM13015 MEM16006	1	A
MEM19066	Identify the requirements for establishing a gemstone-cutting workshop	MEM13015 MEM16006	2	B
MEM19067	Apply advanced pre-cutting processes to complex gemstones	MEM13015 MEM16006 MEM19057	4	B
Code	Title	Prerequisites	Points	Banding
MEM20015	Produce hand cut keys	MEM13015 MEM16006 MEM18001	2	A
MEM20016	Produce keys by cutting to code	MEM13015 MEM16006	2	A
MEM20017	Produce keys by duplication	MEM13015 MEM16006	2	A
MEM20018	Identify and program transponder keys	MEM13015 MEM16006 MEM20016 MEM20017	2	This unit has dual status and is to be regarded as both a Specialisation band A unit and Specialisation band B unit for progression to C5 (AQF level V).
MEM20019	Service automotive transponder systems using diagnostic equipment	MEM13015 MEM16006 MEM18001 MEM20015 MEM20016 MEM20017 MEM20018	2	This unit has dual status and is to be regarded as both a Specialisation band A unit and Specialisation band B unit for progression to C5 (AQF level V).

		MEM20023 MEM20025 MEM20031		
MEM20020	Use EEPROM programmers to service automotive transponder systems	MEM13015 MEM16006 MEM18001 MEM20015 MEM20016 MEM20017 MEM20018 MEM20019 MEM20023 MEM20025 MEM20031	2	This unit has dual status and is to be regarded as both a Specialisation band A unit and Specialisation band B unit for progression to C5 (AQF level V).
MEM20021	Perform a building security inspection	MEM13015 MEM16006	2	A
MEM20022	Modify and repair security equipment and systems	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM20023	Assemble and test lock mechanisms	MEM13015 MEM16006 MEM18001	6	A
MEM20024	Install and upgrade locks and hardware	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM20025	Gain entry	MEM11011 MEM13015 MEM16006	4	A

		MEM18001 MEM18002 MEM20023 MEM20024 MEM20015 MEM20016 MEM20017		
MEM20026	Install and maintain door control devices and systems	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	2	A
MEM20027	Maintain and service mechanical locking devices	MEM11011 MEM13015 MEM16006 MEM18001 MEM20023	6	A
MEM20028	Plan and prepare a master key system	MEM12024 MEM13015 MEM16006 MEM18001 MEM20023 MEM20015 MEM20016 MEM20017	4	A
MEM20029	Develop and implement a master key system	MEM12024 MEM13015 MEM16006 MEM18001 MEM20023 MEM20028 MEM20015	6	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).

		MEM20016 MEM20017		
MEM20030	Gain entry and reinstate fire and security containers	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002 MEM20025 MEM20015 MEM20016 MEM20017	4	A
MEM20031	Gain entry and reinstate automotive locking systems	MEM13015 MEM16006 MEM18001 MEM20023 MEM20025 MEM20015 MEM20016 MEM20017 MEM20033	4	A
MEM20032	Service and repair fire and security containers	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002 MEM20023 MEM20015 MEM20016 MEM20017 MEM20027	6	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).
MEM20033	Service and repair mechanical automotive locking systems	MEM11011 MEM13015	4	This unit has dual status and is to be regarded

		MEM16006 MEM18001 MEM18002 MEM20023 MEM20006 MEM20015 MEM20016 MEM20017		as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).
MEM20035	Perform a site security survey	MEM13015 MEM16006 MEM20023 MEM20025 MEM20027	2	A
Code	Title	Prerequisites	Points	Banding
MEM21001	Replace watch batteries, capacitors and bands	MEM13015 MEM16006	2	A
MEM21002	Perform watch movement exchange	MEM13015 MEM16006 MEM21001	2	A
MEM21003	Perform watch case servicing, repair and refurbishment	MEM13015 MEM16006 MEM21001 MEM21002	4	A
MEM21004	Clean watch and clock components	MEM13015 MEM16006	2	A
MEM21005	Diagnose faults in quartz watches	MEM13015 MEM16006 MEM21001	2	A
MEM21006	Service quartz watches	MEM13015 MEM16006 MEM21001 MEM21002	4	A

		MEM21005		
MEM21007	Service complex quartz watches	MEM13015 MEM16006 MEM21001 MEM21002 MEM21005 MEM21006	4	A
MEM21008	Service mechanical watches	MEM11011 MEM13015 MEM16006 MEM18001	4	A
MEM21009	Inspect, diagnose, adjust and repair mechanical watches	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008	4	A
MEM21010	Service watch power generating systems	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008 MEM21009	2	A
MEM21011	Service calendar and other dial indication mechanisms for watches	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008 MEM21009 MEM21010	4	A
MEM21012	Service and repair mechanical watch oscillating systems	MEM11011 MEM13015 MEM16006	4	A

		MEM18001 MEM21008 MEM21009		
MEM21013	Service, test and adjust watch escapements	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008 MEM21009 MEM21012	4	A
MEM21014	Service mechanical chronograph watches	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008 MEM21009 MEM21010 MEM21011	6	A
MEM21015	Perform precision watch timing and adjustment	MEM11011 MEM13015 MEM16006 MEM18001 MEM21008 MEM21009 MEM21012 MEM21013	6	A
MEM21016	Install and set up clocks	MEM13015 MEM16006	2	A
MEM21017	Service and repair clock timepieces	MEM13015 MEM16006	6	A
MEM21018	Service clock escapements and oscillating systems	MEM11011 MEM13015	4	A

		MEM16006 MEM18001 MEM21008 MEM21009 MEM21012 MEM21013 MEM21017		
MEM21019	Service and repair clock striking mechanisms	MEM13015 MEM16006 MEM21017	4	A
MEM21020	Service and repair clock chiming mechanisms	MEM13015 MEM16006 MEM21017 MEM21019	6	A
MEM21021	Restore clockwork mechanisms	MEM06007 MEM09002 MEM11011 MEM13015 MEM16006 MEM18001 MEM21017 MEM21019 MEM21020	6	B
MEM21022	Manufacture watch and clock components	MEM06007 MEM07005 MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006	6	B

		MEM18001 MEM21017 MEM21019 MEM21020 MEM21021		
MEM21023	Plan, set up and operate horological workshop or service centre	MEM13015 MEM16006	4	B
Code	Title	Prerequisites	Points	Banding
MEM22001	Perform engineering activities	MEM16006	-	-
MEM22002	Manage self in the engineering environment	MEM16006	-	-
MEM22007	Manage environmental effects of engineering activities	MEM16006	-	-
MEM22012	Coordinate resources for an engineering project or operation	MEM16006	-	-
MEM22013	Coordinate engineering projects	MEM16006	-	-
MEM22014	Coordinate engineering-related manufacturing operations	MEM14091 MEM16006 MEM23004	-	-
MEM22015	Source and estimate engineering materials requirements	MEM16006	-	-
MEM22017	Coordinate continuous improvement and technical development	MEM16006	-	-
MEM22018	Coordinate sales and promotion of engineering-related products or services	MEM16006	-	-
Code	Title	Prerequisites	Points	Banding
MEM23003	Operate and program computers and/or controllers in engineering situations	MEM16006 MEM16008	-	-
MEM23004	Apply technical mathematics	NIL	-	-
MEM23005	Apply statistics and probability techniques to engineering tasks	NIL	-	-
MEM23006	Apply fluid and thermodynamics principles in engineering	MEM23004	-	-
MEM23007	Apply calculus to engineering tasks	MEM23004	-	-
MEM23008	Apply advanced algebra and numerical methods to engineering tasks	MEM23004	-	-

MEM23052	Apply basic electro and control scientific principles and techniques in aeronautical engineering	NIL	-	-
MEM23063	Select and organise mechanical engineering material tests	MEM23004 MEM23109	-	-
MEM23064	Select and organise mechatronic engineering material tests	MEM23004 MEM23109	-	-
MEM23086	Apply scientific principles and techniques in avionic engineering situations	MEA706	-	-
MEM23109	Apply engineering mechanics principles	MEM23004	-	-
MEM23111	Select electrical equipment and components for engineering applications	MEM23004	-	-
MEM23112	Investigate electrical and electronic controllers in engineering applications	MEM23004 MEM23111	-	-
MEM23113	Evaluate hydrodynamic systems and system components	MEM23004 MEM23006	-	-
MEM23114	Evaluate thermodynamic systems and components	MEM23004 MEM23006	-	-
MEM23115	Evaluate fluid power systems	MEM23004 MEM23006	-	-
MEM23116	Evaluate programmable logic controller and related control system component applications	MEM23004 MEM23111 MEM23112	-	-
MEM23117	Evaluate microcontroller applications	MEM23004 MEM23111 MEM23112	-	-
MEM23118	Apply production and service control techniques	MEM30012	-	-
MEM23119	Evaluate continuous improvement processes	MEM23118 MEM30012	-	-
MEM23120	Select mechanical machine and equipment components	MEM23004 MEM23109 MEM30005 MEM30006	-	-
MEM23121	Analyse loads on frames and mechanisms	MEM23004 MEM23007	-	-

		MEM23109		
MEM23122	Evaluate computer integrated manufacturing systems	MEM23004 MEM23111 MEM23112	-	-
MEM23123	Evaluate manufacturing processes	NIL	-	-
MEM23124	Measure and analyse noise and vibration	MEM23004	-	-
MEM23125	Evaluate maintenance systems	MEM23004 MEM14088 MEM14092	-	-
MEM23126	Evaluate industrial robotic applications	MEM23004 MEM23111 MEM23112 MEM23116 MEM23117	-	-
MEM23129	Evaluate thermal loads for heating, ventilation, air conditioning and refrigeration	MEM23004 MEM23006	-	-
MEM23130	Coordinate servicing and fault-finding of HVACR control systems	MEM23004 MEM23006	-	-
MEM23131	Evaluate rapid prototyping applications	MEM23004	-	-
MEM23132	Evaluate rapid manufacturing processes	MEM23004	-	-
MEM23133	Evaluate rapid tooling applications	MEM23004	-	-
MEM23134	Evaluate jigs and fixtures	MEM23004 MEM23109	-	-
MEM23135	Evaluate moulding tools and processes	MEM23004	-	-
MEM23136	Evaluate stamping and forging tools	MEM23004 MEM23109	-	-
MEM23137	Evaluate rolling tools and processes	MEM23004 MEM23109	-	-
MEM23138	Evaluate suitability of materials for engineering-related applications	MEM23004	-	-
MEM23139	Design a basic single zone duct distribution system	MEM23004 MEM23006	-	-

		MEM30031 MEM30033		
MEM23140	Determine operational parameters for building HVAC hydronic systems	MEM23004 MEM23006	-	-
MEM23141	Complete a building thermal performance survey	MEM23004 MEM23006 MEM23142	-	-
MEM23142	Determine psychrometric processes and system performance	MEM23004 MEM23006	-	-
MEM23143	Apply energy management principles	MEM23004 MEM23006	-	-
MEM23144	Contribute to the design of a commercial refrigeration system	MEM23004 MEM23006 MEM23129	-	-
MEM23145	Apply codes and regulations to air conditioning designs	MEM23004 MEM23006 MEM23140 MEM23142	-	-
MEM23146	Contribute to the design of industrial refrigeration systems	MEM23004 MEM23006	-	-
MEM23147	Contribute to the design of hydronic systems	MEM23004 MEM23006 MEM23140	-	-
MEM23148	Develop energy management solutions	MEM23004 MEM23006 MEM23142 MEM23143 MEM23154	-	-
MEM23149	Contribute to the design of commercial and industrial exhaust systems	MEM23004	-	-
MEM23150	Contribute to the design of heating systems	MEM23004 MEM23006	-	-

		MEM23140 MEM23147		
MEM23151	Commission and optimise performance of HVACR systems	MEM23004 MEM23006 MEM23140 MEM23154	-	-
MEM23152	Apply principles of refrigeration food storage technology	NIL	-	-
MEM23153	Contribute to the design of heat exchanger systems	MEM23004 MEM23006	-	-
MEM23154	Analyse and service HVACR systems	MEM23004 MEM23006	-	-
MEM234001	Plan and manage engineering-related projects or operations	NIL	-	-
MEM234002	Integrate engineering technologies	NIL	-	-
MEM234003	Design machines and ancillary equipment	NIL	-	-
MEM234004	Design for engineering-related noise and vibration mitigation	NIL	-	-
MEM234005	Design hydrodynamic pumping systems	NIL	-	-
MEM234006	Evaluate and select thermodynamic systems or subsystems	NIL	-	-
MEM234007	Design fluid power systems	NIL	-	-
MEM234008	Design plant using computer simulations	NIL	-	-
MEM234009	Design computer-integrated manufacturing systems	NIL	-	-
MEM234010	Design microcontroller applications	NIL	-	-
MEM234011	Design programmable logic controller applications	NIL	-	-
MEM234012	Design integrated maintenance management systems	NIL	-	-
MEM234013	Plan and design engineering-related manufacturing processes	NIL	-	-
MEM234014	Design a robotic system	NIL	-	-
MEM234015	Design hydronic heat exchanger systems	NIL	-	-
MEM234016	Design refrigeration systems	NIL	-	-
MEM234017	Design exhaust, ventilation and dust collection systems	NIL	-	-

MEM234018	Design heating, ventilation, air conditioning and refrigeration control systems	NIL	-	-
MEM234019	Apply finite element analysis in engineering design	NIL	-	-
MEM234020	Coordinate small lot manufacture using rapid manufacture processes	NIL	-	-
MEM234021	Apply statistics to technology problems	NIL	-	-
MEM234022	Apply advanced calculus to technology problems	NIL	-	-
MEM234023	Apply differential equations to technology problems	NIL	-	-
MEM234024	Apply advanced mathematics to technology problems	NIL	-	-
MEM234025	Apply numerical methods to technology problems	NIL	-	-
MEM234026	Develop and coordinate engineering-related contingency plans	NIL	-	-
MEM234027	Plan and manage materials supply for an engineering project or manufacturing operation	NIL	-	-
MEM234028	Produce and manage technical documentation	NIL	-	-
MEM234029	Produce and manage technical publications	NIL	-	-
MEM234030	Provide specialised technical and engineering guidance to other technical employees	NIL	-	-
MEM234031	Manage installation, commissioning or modification of machines and equipment	NIL	-	-
MEM234032	Manage fluid power-related technologies in an organisation	NIL	-	-
MEM234033	Lead engineering-related quality operations in an organisation	NIL	-	-
MEM234034	Manage heating, ventilation, air conditioning and refrigeration systems or projects	NIL	-	-
MEM234035	Maintain and apply technical and engineering skills	NIL	-	-
MEM234036	Apply configuration management procedures in engineering project management	MEM23003 MEM234028 MEM234029	-	-
MEM234037	Perform maintenance-related integrated logistic support management activities	MEM23003 MEM234028 MEM234029	-	-
MEM234038	Apply systems engineering procedures to engineering design project management	NIL	-	-
MEM234039	Provide technical support for prototyping in large engineering and fabrication projects	NIL	-	-

MEM234040	Plan space allocation for large steel based fabrication and construction projects	MEM16006 MEM16008 MEM23003	-	-
MEM234041	Manage steel supply for major fabrication projects	NIL	-	-
Code	Title	Prerequisites	Points	Banding
MEM24012	Apply metallurgical principles	MEM13015 MEM16006	4	B
MEM24022	Undertake penetrant tests	MEM13015 MEM16006	4	B
MEM24024	Undertake magnetic particle tests	MEM13015 MEM16006	4	B
MEM24026	Undertake eddy current tests	MEM13015 MEM16006	6	B
MEM24028	Undertake ultrasonic tests	MEM13015 MEM16006	6	B
MEM24030	Undertake radiographic tests	MEM13018 MEM13015 MEM16006	6	B
MEM24031	Establish procedures for non-destructive tests	MEM13018 MEM24022 MEM24024 MEM24026 MEM24028	12	B

		MEM24030 MEM24039 MEM30007		
MEM24033	Undertake thermography tests	MEM13015 MEM16006 MEM24039 MEM30007	4	B
MEM24034	Undertake digital and computed radiography	MEM13018 MEM16006 MEM24030 MEM24039 MEM30007	6	B
MEM24035	Undertake eddy current array tests	MEM16006 MEM24026 MEM24039 MEM30007	6	B
MEM24036	Perform visual testing to non-destructive testing standards	MEM24039 MEM30007	4	B
MEM24037	Undertake advanced ultrasonic testing	MEM13015 MEM16006 MEM24028 MEM24039 MEM30007	6	B
MEM24038	Apply codes and standards to non-destructive testing	-	6	B
MEM24039	Apply materials technology principles to non-destructive tests	MEM30007	8	B
MEM24040	Undertake advanced ultrasonic testing	MEM13015 MEM16006	-	-
MEM24041	Undertake basic magnetic particle tests	MEM13015 MEM16006	-	-
MEM24042	Undertake basic eddy current tests	MEM13015 MEM16006	-	-

MEM24043	Undertake ultrasonic thickness tests	MEM13015 MEM16006	-	-
MEM24044	Undertake basic radiographic tests	MEM13015 MEM13018 MEM16006	-	-
Code	Title	Prerequisites	Points	Banding
MEM25001	Apply fibre-reinforced materials	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002	2	A
MEM25002	Form and integrate fibre-reinforced structures	MEM09002 MEM11011 MEM12023 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM25003	Set up marine vessel structures	MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A
MEM25004	Fair and shape surfaces	MEM11011 MEM13003	2	A

		MEM13015 MEM16006 MEM18001 MEM18002		
MEM25005	Construct and assemble marine vessel timber components	MEM04018 MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	8	A
MEM25006	Undertake marine sheathing operations	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002 MEM25001 MEM25004	2	A
MEM25007	Maintain marine vessel surfaces	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002	4	A
MEM25008	Repair marine vessel surfaces and structures	MEM09002 MEM11011 MEM12007	4	A

		MEM12023 MEM12024 MEM13003 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM25004 MEM25007		
MEM25009	Form timber shapes using hot processes	MEM04018 MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	2	A
MEM25010	Perform fitout procedures	MEM04018 MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002	4	A

		MEM25005		
MEM25011	Install marine systems	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	8	A
MEM25012	Install and test operations of marine auxiliary systems	MEM11011 MEM13003 MEM13015 MEM16006 MEM18001 MEM18002	6	A
MEM25013	Produce three-dimensional plugs/moulds	MEM04018 MEM09002 MEM11011 MEM12007 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM25002 MEM25003	12	This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).
MEM25014	Perform marine slipping operations	MEM11011 MEM13015 MEM16006 MEM18001 MEM18002	2	A
MEM25015	Assemble and install equipment and accessories/ancillaries	MEM09002 MEM11011	2	A

		MEM13015 MEM16006 MEM18001 MEM18002		
Code	Title	Prerequisites	Points	Banding
MEM26001	Lay up composites using open moulding techniques	MEM13015 MEM16006	6	A
MEM26002	Lay up composites using vacuum closed moulding techniques	MEM13015 MEM16006	6	A
MEM26003	Lay up composites using pressure closed moulding techniques	MEM13015 MEM16006	6	A
MEM26004	Make basic plugs for composites fabrication	MEM13015 MEM16006	3	A
MEM26005	Make basic moulds for composites fabrication	MEM13015 MEM16006	3	A
MEM26006	Mark and cut out sheets for composite use	MEM13015 MEM16006	4	A
MEM26007	Select and use reinforcing appropriate for product	MEM13015 MEM16006	4	A
MEM26008	Select and use resin systems appropriate for product	MEM13015 MEM16006	4	A
MEM26009	Select and use cores and fillers appropriate for product	MEM13015 MEM16006	2	A
MEM26010	Store and handle composite materials	MEM13015 MEM16006	2	A
MEM26011	Determine materials and techniques for a composite component or product	MEM09002 MEM13015 MEM16006 MEM26007 MEM26008 MEM26009	6	A
MEM26012		MEM13015	4	A

	Record and trial work processes for one-off composite products	MEM16006		
MEM26013	Select and use composite processes or systems appropriate for product	MEM13015 MEM16006	4	A
MEM26014	Adjust resin chemicals for current conditions	MEM13015 MEM16006	4	A
MEM26015	Select and apply repair techniques	MEM13015 MEM16006	6	A
MEM26016	Select and use joining techniques	MEM13015 MEM16006	6	A
MEM26017	Prepare composite or other substrate surfaces	MEM13015 MEM16006	4	A
MEM26018	Organise composite trials	MEM13015 MEM16006	4	A
MEM26019	Finish a composite product	MEM13015 MEM16006	4	A
MEM26020	Identify and interpret required standards for composites	MEM13015 MEM16006	2	A
Code	Title	Prerequisites	Points	Banding
MEM27001	Maintain and repair stationary and mobile plant engine cooling systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	2	A
MEM27002	Test and repair compression ignition systems	MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	4	A

MEM27003	Overhaul engine fuel system components	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	8	A
MEM27004	Maintain and repair engine lubrication systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	2	A
MEM27005	Tune diesel engines	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM27002	4	A
MEM27006	Diagnose and rectify batteries, low voltage sensors and circuits	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002	8	A

		MEM18055		
MEM27007	Diagnose and rectify low voltage starting systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM27006	2	A
MEM27008	Maintain induction, exhaust and emission control systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27009	Diagnose and rectify braking systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	A
MEM27010	Diagnose and rectify low voltage charging systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001	2	A

		MEM18002 MEM18055 MEM27006		
MEM27011	Maintain track type undercarriage on mobile plant	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27012	Maintain mobile plant suspension systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27013	Maintain steering systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27014	Diagnose and rectify automatic transmissions	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006	8	A

		MEM18001 MEM18002 MEM18055		
MEM27015	Diagnose and rectify drive line and final drives	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27016	Diagnose and maintain electronic controlling systems on mobile and stationary plant	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM27006 MEM27023	4	A
MEM27017	Maintain, fault find and rectify hydraulic systems for mobile plant	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27018	Test, diagnose and rectify mobile and stationary plant external monitoring and control systems	MEM09002 MEM11011 MEM12023	4	B

		MEM13015 MEM16006 MEM16008 MEM18001 MEM18002 MEM18055 MEM27006 MEM27016 MEM27023		
MEM27019	Diagnose, repair and replace diesel engines in stationary and mobile plant	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	5	A
MEM27020	Apply knowledge of large combustion engine operations to service and maintenance tasks	MEM09002 MEM13015 MEM16006	2	A
MEM27021	Maintain, fault find and repair stationary plant gas turbine engines	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	A
MEM27022	Maintain, fault find and repair traction drive mechanics	MEM09002 MEM11011 MEM12023 MEM13015	4	A

		MEM16006 MEM18001 MEM18002 MEM18055 MEM27006 MEM27016		
MEM27023	Diagnose and rectify fieldbus circuits in mobile and stationary plant and equipment	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM27006	4	A
MEM27024	Diagnose and rectify mobile plant hydrostatic systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055 MEM27017	4	B
MEM27025	Maintain, diagnose and rectify fluid power controls in mobile equipment	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	6	B

		MEM27006 MEM27017		
MEM27026	Service and repair mobile plant air conditioning systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27027	Install or modify mobile plant air conditioning systems	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	B
MEM27028	Diagnose and rectify manual transmissions	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM18001 MEM18002 MEM18055	4	A
MEM27029	Maintain wheels and tyres	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM27030	Perform engine bottom-end overhaul	MEM09002 MEM11011	4	A

		MEM12003 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18055		
MEM27031	Perform engine top-end overhaul	MEM09002 MEM11011 MEM12023 MEM12024 MEM13015 MEM14006 MEM16006 MEM18001 MEM18002 MEM18003 MEM18006 MEM18055	8	A
MEM27032	Service combustion engines	MEM11011 MEM13015 MEM16006 MEM18001	2	A
MEM27033	Perform advanced equipment testing and diagnostics on mobile plant and equipment	MEM09002 MEM11011 MEM12023 MEM13015 MEM16006 MEM16008 MEM18001	8	B

		MEM18002 MEM18055 MEM27006 MEM27016		
Code	Title	Prerequisites	Points	Banding
MEM29001	Work in Industry 4.0	NIL	-	-
MEM29002	Commission a cyber-physical system	NIL	-	-
MEM29003	Apply CAD and CAM in an Industry 4.0 workplace	NIL	-	-
MEM29004	Analyse and problem solve a PLC based industrial control system	NIL	-	-
MEM29005	Diagnose faults in digital control systems	NIL	-	-
MEM29006	Use a SCADA system to assist Industry 4.0 operations in manufacturing and engineering	NIL	-	-
MEM29007	Apply networking technology principles for manufacturing and engineering applications	NIL	-	-
MEM29008	Analyse and manage data in cloud-based systems	NIL	-	-
MEM29009	Prepare configure and test collaborative robots for industrial operations	NIL	-	-
MEM29010	Plan and implement preventative maintenance procedures in an Industry 4.0 manufacturing workplace	NIL	-	-
MEM29011	Develop a business case for Industry 4.0 implementation in a workplace	NIL	-	-
MEM29012	Access and use a digital twin for operational purposes	NIL	-	-
MEM29013	Integrate sensors and transducers into digital manufacturing processes	NIL	-	-
Code	Title	Prerequisites	Points	Banding
MEM30005	Calculate force systems within simple beam structures	MEM30012	-	-
MEM30006	Calculate stresses in simple structures	MEM30012	-	-
MEM30007	Select common engineering materials	NIL	-	-
MEM30008	Apply basic economic and ergonomic concepts to evaluate engineering applications	NIL	-	-
MEM30009	Contribute to the design of basic mechanical systems	MEM16008 MEM30032	-	-
MEM30010	Set up basic hydraulic circuits	NIL	-	-

MEM30011	Set up basic pneumatic circuits	NIL	-	-
MEM30012	Apply mathematical techniques in a manufacturing engineering or related environment	NIL	4	B
MEM30013	Assist in the preparation of a basic workplace layout	NIL	-	-
MEM30014	Apply basic just in time systems to the reduction of waste	NIL	-	-
MEM30015	Develop recommendations for basic set up time improvements	NIL	-	-
MEM30016	Assist in the analysis of a supply chain	NIL	-	-
MEM30017	Use basic preventative maintenance techniques and tools	NIL	-	-
MEM30018	Undertake basic process planning	NIL	-	-
MEM30019	Use resource planning software systems in manufacturing	MEM13015 MEM16006 MEM16008	-	-
MEM30020	Develop and manage a plan for a simple manufacturing related project	NIL	-	-
MEM30021	Prepare a simple production schedule	NIL	-	-
MEM30022	Undertake supervised procurement activities	NIL	-	-
MEM30023	Prepare a simple cost estimate for a manufactured product	NIL	-	-
MEM30024	Participate in quality assurance techniques	MEM12024 MEM13015 MEM15001 MEM16006	-	-
MEM30025	Analyse a simple electrical system circuit	MEM12024 MEM13015 MEM16006	-	-
MEM30026	Select and test components for simple electronic switching and timing circuits	MEM12024 MEM13015 MEM16006	-	-
MEM30027	Prepare basic programs for programmable logic controllers	NIL	-	-
MEM30028	Assist in sales of technical products	NIL	-	-
MEM30029	Use workshop equipment and processes to complete an engineering project	MEM13015	-	-
MEM30031	Operate computer-aided design (CAD) system to produce basic drawing elements	NIL	-	-
MEM30032	Produce basic engineering drawings	NIL	-	-

MEM30033	Use computer-aided design (CAD) to create and display 3D models	MEM30031	-	-
Code	Title	Prerequisites	Points	Banding
MEM48001	Test the mechanical properties of materials	NIL	-	-
MEM48002	Monitor ferrous melting and casting processes	NIL	-	-
MEM48003	Monitor nonferrous melting and casting processes	NIL	-	-
MEM48004	Interpret basic binary phase diagrams	NIL	4	-
MEM48005	Apply basic knowledge of casting operations	NIL	-	-
MEM48006	Prepare and examine metallographic samples	MEM48004	-	-
MEM48007	Monitor and test sands, cores and moulds	NIL	-	-
MEM48008	Evaluate mould design and gating	MEM48004 MEM48005	-	-
MEM48009	Undertake and interpret results of chemical analysis on metal samples	NIL	-	-
MEM48010	Determine and supervise heat treatment of metal	MEM06003 MEM11011 MEM13015 MEM16006 MEM48004	-	-
MEM48011	Apply basic chemical principles to metallurgy	NIL	-	-
MEM48012	Calculate and predict chemical outcomes in metallurgical situations	MEM48011	-	-
MEM48013	Identify and select equipment for mineral and chemical processing plants	MEM48004 MEM48011	-	-
MEM48014	Recommend a refractory for an application	NIL	-	-
MEM48015	Select metal forming process	MEM09229 MEM30007 MEM48011 MEM48012	-	-
MEM48016	Select metal joining process	MEM09229 MEM30007 MEM48011 MEM48012	-	-
MEM48017	Monitor blast furnace operations	MEM48004 MEM48011 MEM48012	-	-

MEM48018	Monitor primary steel making process	MEM48004 MEM48011 MEM48012	-	-
MEM48019	Monitor secondary steel making operations	MEM48001 MEM48004 MEM48014	-	-
MEM48020	Recommend ferrous and nonferrous metals or alloys for an application	MEM48004	-	-
MEM48021	Apply metallurgical principles and techniques in welding and other thermal processes	MEM09229 MEM30007 MEM48011 MEM48012 MEM48016	-	-
MEM48022	Apply metallurgical principles and practice to determine metal forming and shaping processes	NIL	-	-
MEM48023	Apply metallurgical principles and practice to optimise furnace operation	NIL	-	-
MEM48024	Plan and complete metallurgical projects	MEM06003 MEM11011 MEM13015 MEM16006 MEM16008 MEM23063 MEM14089 MEM30007 MEM30012 MEM48004 MEM48010 MEM48011 MEM48012 MEM48016 MEM48020 MEM48021	-	-
MEM48025	Select surface treatment methods for metallic components or products	NIL	-	-

MEM48026	Analyse metallurgical failures of components and recommend preventative measures	MEM48004 MEM48006	-	-
MEM48027	Select non-metallic materials for engineering applications	NIL	-	-
MEM48028	Determine corrosion prevention strategies for metal and alloys	NIL	-	-
MEM48029	Interpret and produce complex binary phase diagrams	MEM48004	-	-
MEM48030	Apply materials selection analysis techniques	MEM30007 MEM30012	-	-
MEM48031	Select ceramic and glass materials for engineering and manufacturing applications	NIL	-	-
MEM48032	Select composite materials for engineering and manufacturing applications	NIL	-	-
MEM48033	Apply chemistry principles to materials used in manufacturing and engineering processes	NIL	-	-
MEM48034	Apply efficient materials management techniques to composite manufacturing operations	MEM48032	-	-
Code	Title	Prerequisites	Points	Banding
MEM50001	Classify recreational boating technologies and features	MEM13015	-	E
MEM50002	Work safely on marine craft	MEM13015	1	A
MEM50003	Follow work procedures to maintain the marine environment	MEM13015	1	A
MEM50004	Maintain quality of environment by following marina codes	MEM13015 MEM16006 MEM50003	1	A
MEM50005	Refuel vessels	MEM13015 MEM16006 MEM50002 MEM50003	-	E
MEM50006	Check operational capability of marine craft	MEM13015 MEM16006 MEM50002	-	E
MEM50007	Check operational capability of sails and sail operating equipment	MEM13015 MEM16006 MEM50002	-	E

MEM50008	Carry out trip preparation and planning	MEM13015 MEM16006	-	E
MEM50009	Safely operate a mechanically powered recreational boat	MEM13015 MEM16006	2	A
MEM50010	Respond to boating emergencies and incidents	MEM13015 MEM16006	-	E
Code	Title	Prerequisites	Points	Banding
MEMPE001	Use engineering workshop machines	NIL	-	-
MEMPE002	Use electric welding machines	NIL	-	-
MEMPE003	Use oxy-acetylene and soldering equipment	NIL	-	-
MEMPE004	Use fabrication equipment	NIL	-	-
MEMPE005	Develop a career plan for the engineering and manufacturing industries	NIL	-	-
MEMPE006	Undertake a basic engineering project	NIL	-	-
MEMPE007	Pull apart and re-assemble engineering mechanisms	NIL	-	-

Appendix 2: MEM Release 5.0 – imported units

The following table lists the units imported from other training packages to the MEM Manufacturing and Engineering Training Package qualifications.

Imported Unit Code	Imported Unit Title	Training Package
BSBAUD411	Participate in quality audits	BSB - Business Services Training Package
BSBCMM411	Make presentations	BSB - Business Services Training Package
BSBCMM412	Lead difficult conversations	BSB - Business Services Training Package
BSBCRT411	Apply critical thinking to work practices	BSB - Business Services Training Package
BSBCRT412	Articulate, present and debate ideas	BSB - Business Services Training Package
BSBCRT413	Collaborate in creative processes	BSB - Business Services Training Package
BSBCRT512	Originate and develop concepts	BSB - Business Services Training Package
BSBCRT611	Apply critical thinking for complex problem solving	BSB - Business Services Training Package
BSBESB404	Market new business ventures	BSB - Business Services Training Package
BSBESB406	Establish operational strategies and procedures for new business ventures	BSB - Business Services Training Package
BSBESB407	Manage finances for new business ventures	BSB - Business Services Training Package
BSBFIN302	Maintain financial records	BSB - Business Services Training Package
BSBFIN401	Report on financial activity	BSB - Business Services Training Package
BSBHRM413	Support the learning and development of teams and individuals	BSB - Business Services Training Package
BSBHRM611	Contribute to organisational performance development	BSB - Business Services Training Package
BSBINS401	Analyse and present research information	BSB - Business Services Training Package
BSBLDR411	Demonstrate leadership in the workplace	BSB - Business Services Training Package
BSBLDR412	Communicate effectively as a workplace leader	BSB - Business Services Training Package
BSBLDR413	Lead effective workplace relationships	BSB - Business Services Training Package
BSBLDR414	Lead team effectiveness	BSB - Business Services Training Package
BSBLDR521	Lead the development of diverse workforces	BSB - Business Services Training Package
BSBLDR812	Develop and cultivate collaborative partnerships and relationships	BSB - Business Services Training Package
BSBLEG422	Maintain a file in a legal services environment	BSB - Business Services Training Package
BSBLEG525	Apply legal principles in intellectual property law matters	BSB - Business Services Training Package
BSBMKG434	Promote products and services	BSB - Business Services Training Package
BSBOPS401	Coordinate business resources	BSB - Business Services Training Package

BSBOPS402	Coordinate business operational plans	BSB - Business Services Training Package
BSBOPS403	Apply business risk management processes	BSB - Business Services Training Package
BSBOPS404	Implement customer service strategies	BSB - Business Services Training Package
BSBOPS405	Organise business meetings	BSB - Business Services Training Package
BSBOPS407X	Support organisational response to disruption	BSB - Business Services Training Package
BSBPEF401	Manage personal health and wellbeing	BSB - Business Services Training Package
BSBPEF402	Develop personal work priorities	BSB - Business Services Training Package
BSBPEF403	Lead personal development	BSB - Business Services Training Package
BSBPEF502	Develop and use emotional intelligence	BSB - Business Services Training Package
BSBPMG428	Apply project life cycle management processes	BSB - Business Services Training Package
BSBPMG430	Undertake project work	BSB - Business Services Training Package
BSBSTR401	Promote innovation in team environments	BSB - Business Services Training Package
BSBSTR502	Facilitate continuous improvement	BSB - Business Services Training Package
BSBSUS411	Implement and monitor environmentally sustainable work practices	BSB - Business Services Training Package
BSBSUS412	Develop and implement workplace sustainability plans	BSB - Business Services Training Package
BSBTEC301	Design and produce business documents	BSB - Business Services Training Package
BSBTEC403	Apply digital solutions to work processes	BSB - Business Services Training Package
BSBTWK401	Build and maintain business relationships	BSB - Business Services Training Package
BSBWHS411	Implement and monitor WHS policies, procedures and programs	BSB - Business Services Training Package
BSBWHS432X	Contribute to organisational mental health response in the context of disruptive events	BSB - Business Services Training Package
BSBWRT411	Write complex documents	BSB - Business Services Training Package
BSBXBD403	Analyse big data	BSB - Business Services Training Package
BSBXBD404	Use big data for operational decision making	BSB - Business Services Training Package
BSBXCM401	Apply communication strategies in the workplace	BSB - Business Services Training Package
BSBXCS406	Develop cyber security insider threat and risk response plans	BSB - Business Services Training Package
BSBXCS407	Develop cyber hygiene best practice plan	BSB - Business Services Training Package
BSBXCS408	Develop employee cyber security risk profiles	BSB - Business Services Training Package
BSBXCS409	Plan and implement organisational cyber security insider threat prevention strategies	BSB - Business Services Training Package
BSBXTW401	Lead and facilitate a team	BSB - Business Services Training Package

CPCCLDG3001	Licence to perform dogging	CPC - Construction, Plumbing and Services Training Package
CPCCLRG3001	Licence to perform rigging basic level	CPC - Construction, Plumbing and Services Training Package
CPCCLSF2001	Licence to erect, alter and dismantle scaffolding basic level	CPC - Construction, Plumbing and Services Training Package
CPCCLSF3001	Licence to erect, alter and dismantle scaffolding intermediate level	CPC - Construction, Plumbing and Services Training Package
CPCPCM4012	Estimate and cost work	CPC - Construction, Plumbing and Services Training Package
CPCWHS1001	Prepare to work safely in the construction industry	CPC - Construction, Plumbing and Services Training Package
CPPBDN6106	Produce building information modelling for building design projects	CPP - Property Services Training Package
CPPFES2027	Inspect, test and maintain non-gaseous pre-engineered fire-suppression systems	CPP - Property Services Training Package
CPPFES3042	Install and commission pre-engineered fire-suppression systems	CPP - Property Services Training Package
CPPSEC2021	Install security equipment and systems	CPP - Property Services Training Package
CPPSEC3036	Program and configure security equipment and systems	CPP - Property Services Training Package
CPPSEC3037	Test installed security equipment and systems	CPP - Property Services Training Package
CPPSEC3038	Commission and decommission security equipment and systems	CPP - Property Services Training Package
CPPSEC3039	Diagnose faults in electronic security equipment and systems	CPP - Property Services Training Package
CPPSEC3041	Conduct routine service of security equipment and systems	CPP - Property Services Training Package
CPPSEC3047	Provide estimate and quote on security system installations	CPP - Property Services Training Package
CUAACD314	Make scale models	CUA - Creative Arts and Culture Training Package
CUAACD522	Work with photomedia in creative practice	CUA - Creative Arts and Culture Training Package
CUAACD534	Research and apply light and colour	CUA - Creative Arts and Culture Training Package
CUAACD536	Refine 2-D design ideas and processes	CUA - Creative Arts and Culture Training Package
CUAACD537	Refine 3-D design ideas and processes	CUA - Creative Arts and Culture Training Package
CUAACD611	Extend professional expertise with drawing and other visual representation tools	CUA - Creative Arts and Culture Training Package

CUADES412	Interpret and respond to a design brief	CUA - Creative Arts and Culture Training Package
CUADES421	Research and apply techniques for the design of wearable objects	CUA - Creative Arts and Culture Training Package
CUADES512	Establish, negotiate and refine a design brief	CUA - Creative Arts and Culture Training Package
CUADES611	Manage design realisation	CUA - Creative Arts and Culture Training Package
CUADES612	Research global design trends	CUA - Creative Arts and Culture Training Package
CUADES801	Research and apply design theory	CUA - Creative Arts and Culture Training Package
CUADIG415	Produce innovative digital images	CUA - Creative Arts and Culture Training Package
CUADIG518	Refine digital art techniques	CUA - Creative Arts and Culture Training Package
CUADRA501	Refine drawing techniques	CUA - Creative Arts and Culture Training Package
CUADRA502	Investigate drawing materials and processes	CUA - Creative Arts and Culture Training Package
CUAGRD311	Prepare files for print	CUA - Creative Arts and Culture Training Package
CUAIND211	Develop and apply creative arts industry knowledge	CUA - Creative Arts and Culture Training Package
CUAJWL401	Experiment with techniques to produce jewellery	CUA - Creative Arts and Culture Training Package
CUAPHI312	Capture photographic images	CUA - Creative Arts and Culture Training Package
CUAPHI403	Enhance, manipulate and output photo images	CUA - Creative Arts and Culture Training Package
CUAPHI412	Apply photo imaging lighting techniques	CUA - Creative Arts and Culture Training Package
CUAPPR403	Store and maintain finished creative work	CUA - Creative Arts and Culture Training Package
CUAPPR415	Develop and discuss ideas for own creative work	CUA - Creative Arts and Culture Training Package
CUAPPR511	Realise a body of creative work	CUA - Creative Arts and Culture Training Package
CUAPPR512	Develop sustainability of own professional practice	CUA - Creative Arts and Culture Training Package
CUAPPR513	Present a body of own creative work	CUA - Creative Arts and Culture Training Package

CUAPPR611	Originate a body of independent creative work	CUA - Creative Arts and Culture Training Package
CUAPPR612	Collaborate in professional creative projects	CUA - Creative Arts and Culture Training Package
CUAPPR613	Engage in the business of creative practice	CUA - Creative Arts and Culture Training Package
CUAPPR614	Publicly present a body of own creative work	CUA - Creative Arts and Culture Training Package
CUARES412	Conduct research	CUA - Creative Arts and Culture Training Package
CUARES503	Analyse cultural history and theory	CUA - Creative Arts and Culture Training Package
CUARES612	Extend cultural research expertise	CUA - Creative Arts and Culture Training Package
ICTTEN202	Use hand and power tools	ICT - Information and Communications Technology
MEA107	Interpret and use aviation maintenance industry manuals and specifications	MEA - Aeroskills Training Package
MEA154	Apply work health and safety practices in aviation maintenance	MEA - Aeroskills Training Package
MEA156	Apply quality standards during aviation maintenance activities	MEA - Aeroskills Training Package
MEA157	Complete aviation maintenance industry documentation	MEA - Aeroskills Training Package
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA - Aeroskills Training Package
MEA270	Lay out avionic systems	MEA - Aeroskills Training Package
MEA271	Lay out avionic flight management systems	MEA - Aeroskills Training Package
MEA399	Lay out and set up aircraft systems	MEA - Aeroskills Training Package
MEA701	Produce aeronautical engineering related graphics	MEA - Aeroskills Training Package
MEA702	Produce avionics engineering related graphics	MEA - Aeroskills Training Package
MEA703	Apply aeronautical modelling for computer-aided engineering	MEA - Aeroskills Training Package
MEA704	Apply avionic modelling for computer-aided engineering	MEA - Aeroskills Training Package
MEA709	Apply aeronautical structure design techniques	MEA - Aeroskills Training Package
MEA710	Apply aeronautical system design techniques	MEA - Aeroskills Training Package
MEA711	Apply avionic analogue design techniques	MEA - Aeroskills Training Package
MEA712	Apply avionic digital design techniques	MEA - Aeroskills Training Package
MEA713	Integrate aeronautical fundamentals into an engineering task	MEA - Aeroskills Training Package

MEA714	Integrate avionic fundamentals into an engineering task	MEA - Aeroskills Training Package
MEA715	Evaluate aeroplane flight control systems	MEA - Aeroskills Training Package
MEA716	Evaluate avionic analogue systems	MEA - Aeroskills Training Package
MEA717	Evaluate avionic digital systems	MEA - Aeroskills Training Package
MEA718	Evaluate rotorcraft flight control systems	MEA - Aeroskills Training Package
MEA719	Evaluate aircraft electrical systems	MEA - Aeroskills Training Package
MEA720	Evaluate aircraft gas turbine engine power plants	MEA - Aeroskills Training Package
MEA721	Evaluate aircraft hydro-mechanical systems	MEA - Aeroskills Training Package
MEA722	Evaluate aircraft piston engine power plants	MEA - Aeroskills Training Package
MEA723	Evaluate aircraft pneumatic systems	MEA - Aeroskills Training Package
MEA724	Evaluate aircraft structure	MEA - Aeroskills Training Package
MEA725	Apply advanced scientific principles and techniques in avionic engineering situations	MEA - Aeroskills Training Package
MEA726	Apply aircraft electrical system design techniques	MEA - Aeroskills Training Package
MEA727	Apply calculus in avionic engineering situations	MEA - Aeroskills Training Package
MEACOM0041	Write aviation technical publications	MEA - Aeroskills Training Package
MEAENG0001	Apply basic scientific principles and techniques in aeronautical engineering situations	MEA - Aeroskills Training Package
MEAENG0002	Apply basic scientific principles and techniques in avionic engineering situations	MEA - Aeroskills Training Package
MEAENG0003	Select and test aviation engineering materials	MEA - Aeroskills Training Package
MEAMEC0032	Apply basic aircraft design characteristics	MEA - Aeroskills Training Package
MEAMEC0033	Apply basic aircraft power plant design characteristics	MEA - Aeroskills Training Package
MSFFDM4014	Produce manual and computer-aided drawings from design concepts	MSF - Furnishing Training Package
MSL904003	Perform standard calibrations	MSL - Laboratory Operations
MSL924005	Process and interpret data	MSL - Laboratory Operations
MSL925005	Analyse measurements and estimate uncertainties	MSL - Laboratory Operations
MSL925006	Analyse data and report results	MSL - Laboratory Operations
MSL974032	Perform chemical tests and procedures	MSL - Laboratory Operations
MSL975032	Provide input to production trials	MSL - Laboratory Operations
MSL976006	Evaluate and select appropriate test methods and/or procedures	MSL - Laboratory Operations
MSMENV272	Participate in environmentally sustainable work practices	MSM - Manufacturing Training Package

MSMENV472	Implement and monitor environmentally sustainable work practices	MSM - Manufacturing Training Package
MSMENV672	Develop workplace policy and procedures for environmental sustainability	MSM - Manufacturing Training Package
MSMOPS400	Optimise process/plant area	MSM - Manufacturing Training Package
MSMOPS401	Trial new process or product	MSM - Manufacturing Training Package
MSMPCI101	Adapt to work in industry	MSM - Manufacturing Training Package
MSMSUP106	Work in a team	MSM - Manufacturing Training Package
MSMSUP390	Use structured problem-solving tools	MSM - Manufacturing Training Package
MSS402003	Apply competitive systems and practices	MSS - Sustainability
MSS402004	Sustain process improvements	MSS - Sustainability
MSS402022	Apply quick changeover procedures	MSS - Sustainability
MSS402032	Interpret cost and waste in terms of customer value	MSS - Sustainability
MSS402054	Monitor process capability	MSS - Sustainability
MSS402055	Apply quality standards	MSS - Sustainability
MSS402062	Use SCADA systems in operations	MSS - Sustainability
MSS402084	Undertake root cause analysis	MSS - Sustainability
MSS402086	Use planning software systems in operations	MSS - Sustainability
MSS402087	Apply cost factors to work practices	MSS - Sustainability
MSS403003	Contribute to improvements in competitive systems and practices	MSS - Sustainability
MSS403012	Facilitate change in a competitive systems and practices environment	MSS - Sustainability
MSS403022	Facilitate a Just in Time system	MSS - Sustainability
MSS403025	Monitor a levelled pull system of operations	MSS - Sustainability
MSS403031	Analyse and improve manual handling processes	MSS - Sustainability
MSS403045	Facilitate and improve 5S	MSS - Sustainability
MSS403057	Map an operational process	MSS - Sustainability
MSS403081	Ensure process improvements are sustained	MSS - Sustainability
MSS403082	Improve cost factors in work practices	MSS - Sustainability
MSS404051	Mistake proof a process	MSS - Sustainability
MSS404056	Apply statistics to operational processes	MSS - Sustainability
MSS404062	Facilitate the use of planning software systems in a work area or team	MSS - Sustainability

MSS404063	Facilitate the use of SCADA systems in a team or work area	MSS - Sustainability
MSS404080	Undertake process capability improvements	MSS - Sustainability
MSS404088	Undertake proactive maintenance analyses	MSS - Sustainability
MSS404089	Assist in implementing a proactive maintenance strategy	MSS - Sustainability
MSS405000	Develop competitive systems and practices for operational objectives	MSS - Sustainability
MSS405017	Develop business plans in an organisation implementing competitive systems and practices	MSS - Sustainability
MSS405018	Implement competitive systems and practices in a one-off or small batch environment	MSS - Sustainability
MSS405025	Analyse and map a value stream	MSS - Sustainability
MSS405026	Manage a value stream	MSS - Sustainability
MSS405029	Develop quick changeover procedures	MSS - Sustainability
MSS405034	Develop a Just in Time system	MSS - Sustainability
MSS405035	Design a process layout	MSS - Sustainability
MSS405037	Facilitate application of theory of constraints	MSS - Sustainability
MSS405038	Optimise process costs	MSS - Sustainability
MSS405039	Implement and optimise levelled pull system	MSS - Sustainability
MSS405042	Manage 5S system in an organisation	MSS - Sustainability
MSS405045	Manage relationships with non-customer external organisations	MSS - Sustainability
MSS405046	Manage workplace learning	MSS - Sustainability
MSS405047	Undertake analysis of cost and waste in terms of customer value	MSS - Sustainability
MSS405056	Use three or six sigma processes to determine and improve process capability	MSS - Sustainability
MSS405057	Design an experiment	MSS - Sustainability
MSS405065	Develop the application of enterprise control systems in an organisation	MSS - Sustainability
MSS405066	Establish data collection and processing protocols	MSS - Sustainability
MSS405076	Facilitate the development of a new product	MSS - Sustainability
MSS405077	Develop a proactive maintenance strategy	MSS - Sustainability
MSS405078	Lead and manage people within competitive systems and practices	MSS - Sustainability
MSS405088	Plan, implement and monitor energy management	MSS - Sustainability

MSS405091	Adapt a proactive maintenance strategy for a seasonal or cyclical business	MSS - Sustainability
MSS407023	Quantitatively analyse impact of process changes	MSS - Sustainability
MSS407024	Prepare for and implement change	MSS - Sustainability
MSS407025	Build internal relationships to support competitive systems and practices	MSS - Sustainability
MSS407026	Lead a process to determine and solve root cause for a complex problem	MSS - Sustainability
MSS407029	Improve visual management in the workplace	MSS - Sustainability
MSS407030	Manage benchmarking studies	MSS - Sustainability
MSS407031	Review continuous improvement processes	MSS - Sustainability
MSS407032	Facilitate improvements in the internal value stream	MSS - Sustainability
MSS407033	Qualitatively review and improve process changes	MSS - Sustainability
MSS407034	Respond to a major non-conformance	MSS - Sustainability
MSS408011	Develop knowledge systems and learning processes for an organisation	MSS - Sustainability
MSS408012	Develop problem solving capability of an organisation	MSS - Sustainability
MSS408013	Develop best practice model for future state operations	MSS - Sustainability
MSS408015	Develop the competitive systems and practices approach	MSS - Sustainability
MSS408016	Develop the value stream	MSS - Sustainability
MSS408017	Analyse and refine improvement systems	MSS - Sustainability
MSS408018	Analyse data to determine organisational learning	MSS - Sustainability
MSTGN4017	Participate in product engineering	MST - Textiles, Clothing and Footwear
MSTGN4020	Contribute to the development of products or processes	MST - Textiles, Clothing and Footwear
MSTTX3011	Set up, adjust and monitor a machine for TCF production	MST - Textiles, Clothing and Footwear
MSTTX3014	Set up, adjust and maintain industrial sewing machines	MST - Textiles, Clothing and Footwear
PMBPROD391E	Produce composites using resin infusion	PMB - Plastics, Rubber and Cablemaking
PMBPROD394E	Produce composites using resin transfer moulding	PMB - Plastics, Rubber and Cablemaking
PMBPROD398E	Produce composites using prepreps	PMB - Plastics, Rubber and Cablemaking
PMBTECH302E	Modify existing compounds	PMB - Plastics, Rubber and Cablemaking
PMBTECH401E	Predict polymer properties and characteristics	PMB - Plastics, Rubber and Cablemaking
PMBTECH403E	Test thermoset composite laminates and materials	PMB - Plastics, Rubber and Cablemaking

PMBTECH406E	Diagnose production equipment problems	PMB - Plastics, Rubber and Cablemaking
PMBTECH501E	Analyse equipment performance	PMB - Plastics, Rubber and Cablemaking
PMBTECH502E	Analyse production trials	PMB - Plastics, Rubber and Cablemaking
PMBTECH505E	Choose polymer materials for an application	PMB - Plastics, Rubber and Cablemaking
PMBTECH506E	Analyse the design of products and tools for polymer injection moulding	PMB - Plastics, Rubber and Cablemaking
PMBTECH507E	Develop fibre-composite products using cored-laminate techniques	PMB - Plastics, Rubber and Cablemaking
PMBTECH508E	Develop a new compound	PMB - Plastics, Rubber and Cablemaking
PMBTECH509E	Modify an existing product	PMB - Plastics, Rubber and Cablemaking
PMBTECH601E	Develop a new product	PMB - Plastics, Rubber and Cablemaking
PMBTECH602E	Develop a new die or tool	PMB - Plastics, Rubber and Cablemaking
PMBTECH603E	Design structural or mechanical polymer components	PMB - Plastics, Rubber and Cablemaking
SIRXCEG004	Create a customer-centric culture	SIR - Retail Services Training Package
SIRXSLS001	Sell to the retail customer	SIR - Retail Services Training Package
TAEASS311	Contribute to assessment	TAE - Training and Education Training Package
TAEASS404	Assess competence in an online environment	TAE - Training and Education Training Package
TAEASS412	Assess competence	TAE - Training and Education Training Package
TAEASS413	Participate in assessment validation	TAE - Training and Education Training Package
TAEASS512	Design and develop assessment tools	TAE - Training and Education Training Package
TAEDEL311	Provide work skill instruction	TAE - Training and Education Training Package
TAEDEL405	Plan, organise and facilitate online learning	TAE - Training and Education Training Package
TAEDEL411	Facilitate vocational training	TAE - Training and Education Training Package
TAEDEL412	Facilitate workplace-based learning	TAE - Training and Education Training Package
TAEDEL413	Facilitate distance-based training	TAE - Training and Education Training Package
TAEDEL414	Mentor in the workplace	TAE - Training and Education Training Package
TAEDEL511	Facilitate e-learning	TAE - Training and Education Training Package

TAEDS411	Use nationally recognised training products to meet vocational training needs	TAE - Training and Education Training Package
TAEDS412	Design and develop plans for vocational training	TAE - Training and Education Training Package
TAELN421	Integrate core skills support into training and assessment	TAE - Training and Education Training Package
TAELN422	Use foundation skills resources, strategies and advice	TAE - Training and Education Training Package
TAELN423	Integrate employability skills support into training and assessment	TAE - Training and Education Training Package
TAETAS411	Maintain training and assessment information	TAE - Training and Education Training Package
TAEXDB411	Plan and implement individual support plans for learners with disability	TAE - Training and Education Training Package
TLIA0028	Implement safety stock systems	TLI - Transport and Logistics Training Package
TLIG2007	Work in a socially diverse environment	TLI - Transport and Logistics Training Package
TLILIC0003	Licence to operate a forklift truck	TLI - Transport and Logistics Training Package
TLILIC0004	Licence to operate an order picking forklift truck	TLI - Transport and Logistics Training Package
TLILIC0016	Licence to operate a bridge and gantry crane	TLI - Transport and Logistics Training Package
TLILIC0024	Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)	TLI - Transport and Logistics Training Package
TLILIC0040	Licence to operate a non-slewing mobile crane (greater than 3 tonnes capacity)	TLI - Transport and Logistics Training Package
TLIX0010X	Enable traceability in supply chains	TLI - Transport and Logistics Training Package
TLIX0021X	Work with global supply chains	TLI - Transport and Logistics Training Package
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace	UEE - Electrotechnology Training Package
UEECD0051	Use drawings, diagrams, schedules, standards, codes and specifications	UEE - Electrotechnology Training Package
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	UEE07 - Electrotechnology Training Package
UEENEEE104A	Solve problems in d.c. circuits	UEE07 - Electrotechnology Training Package
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	UEE07 - Electrotechnology Training Package

UEENEEG101A	Solve problems in electromagnetic devices and related circuits	UEE07 - Electrotechnology Training Package
UEENEEG102A	Solve problems in low voltage a.c. circuits	UEE07 - Electrotechnology Training Package
UEPMNT419	Perform civil drafting	UEP - Electricity Supply Industry - Generation Sector Training Package

Appendix 3: Mapping – MEM Release 5.0

The following tables map MEM Release 5.0 qualifications and units of competency with:

- MEM Release 4.0 Manufacturing and Engineering Training Package

NOTE: Those qualifications deemed NOT EQUIVALENT have been highlighted in blue

MEM qualifications – mapping to MEM Release 5.0 qualifications

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
MEM50422	Diploma of Engineering – Non-Destructive Testing	MEM50425	Diploma of Engineering - Non-Destructive Testing	Release 1. Equivalent. The following units have been added: - MEM24040 - MEM24041 - MEM24042 - MEM24043 - MEM24044. The following units have been updated: - MEM24022 - MEM24024 - MEM24026 - MEM24028 - MEM24030 - MEM24031 - MEM24033 - MEM24034 - MEM24035 - MEM24036 - MEM24037 - MEM24038 - MEM24039
MEM31922	Certificate III in Engineering - Fabrication Trade	MEM31925	Certificate III in Engineering - Fabrication Trade	Release 1. Equivalent. The following units have been added: - MEM16016 - MEM16017 The following units have been updated: - MEM06010 - MEM06011 - MEM06012 - MEM06013 - MEM06014 - MEM06015

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
				• MEM18110 • MEM18111 • MEM18113.
MEM80122	Graduate Diploma of Engineering	MEM80125	Graduate Diploma of Engineering	Release 1. Equivalent. Packaging rules changed. The following units have been added: • MSS407026 • BSBHRM611 • BSBLDR812 • MEM13015 • MEM14088 • MEM14092 • MEM16006 • MEM16008 • MEM23003 • MEM23004 • MEM23006 • MEM23007 • MEM23063 • MEM23064 • MEM23109 • MEM23111 • MEM23112 • MEM23113 • MEM23114 • MEM23115 • MEM23116 • MEM23117 • MEM23118 • MEM23119 • MEM23120 • MEM23121 • MEM23122 • MEM23123 • MEM23124 • MEM23125 • MEM234036 • MEM234037 • MEM234038 • MEM30005 • MEM30006 • MEM30012 • MSS405000 • MSS405029 • MSS405035 • MSS405039 • MSS405046 • MSS405077 • MSS407023 • MSS407024 • MSS407025 • MSS407029

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
				• MSS407030 • MSS407031 • MSS407032 • MSS407033 • MSS407034 • MSS408011 • MSS408012 • MSS408013 • MSS408015 • MSS408016 • MSS408017 • MSS408018.
MEM20219	Certificate II in Engineering - Production Technology	MEM20219	Certificate II in Engineering - Production Technology	Release 3. Minor change. Equivalent. The following units have been updated: • MEM06010.
MEM30119	Certificate III in Engineering - Production Systems	MEM30119	Certificate III in Engineering - Production Systems	Release 3. Minor change. Equivalent. The following units have been updated: • MEM06010 • MEM06013 • MEM18110 • MEM18111.
MEM30219	Certificate III in Engineering - Mechanical Trade	MEM30219	Certificate III in Engineering - Mechanical Trade	Release 4. Minor change. Equivalent. The following units have been updated: • MEM18110 • MEM18111 • MEM18112 • MEM18113.
MEM30522	Certificate III in Engineering – Technical	MEM30522	Certificate III in Engineering – Technical	Release 3. Minor change. Equivalent. The following units have been added: • MEM24040 • MEM24041 • MEM24042 • MEM24043 • MEM24044. The following units have been removed:

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
				• MEM24001 • MEM24003 • MEM24005 • MEM24007 • MEM24009.
MEM40119	Certificate IV in Engineering	MEM40119	Certificate IV in Engineering	Release 3. Minor change. Equivalent. The following units have been added: • MEM05065 • MEM06016 • MEM06017. The following units have been updated: • MEM06010 • MEM06011 • MEM06012 • MEM06013 • MEM06014 • MEM06015 • MEM18110 • MEM18111 • MEM18112 • MEM18113 • MEM18114 • MEM24022 • MEM24024 • MEM24026 • MEM24028 • MEM24030 • MEM24031.
MEM50119	Diploma of Engineering - Advanced Trade	MEM50119	Diploma of Engineering - Advanced Trade	Release 3. Minor change. Equivalent. The following units have been added: • MEM05061 • MEM05062 • MEM05065 • MEM05066 • MEM05068 • MEM06016 • MEM06017. The following units have been updated: • MEM06010 • MEM06011 • MEM06012 • MEM06013 • MEM06014

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
				- MEM06015 - MEM18110 - MEM18111 - MEM18112 - MEM18113 - MEM18114 - MEM24022 - MEM24024 - MEM24026 - MEM24028 - MEM24030 - MEM24031.
MEM50222	Diploma of Engineering – Technical	MEM50222	Diploma of Engineering – Technical	Release 2. Minor change. Equivalent. The following units have been added: - MEM24040 - MEM24041 - MEM24042 - MEM24043 - MEM24044. The following units have been updated: - MEM24022 - MEM24024 - MEM24026 - MEM24028 - MEM24030 - MEM24031. The following units have been removed: - MEM24001 - MEM24003 - MEM24005 - MEM24007 - MEM24009.
MEM50522	Diploma of Engineering – Materials	MEM50522	Diploma of Engineering – Materials	Release 2. Minor change. Equivalent. The following units have been updated: MEM24039
MEM60122	Advanced Diploma of Engineering	MEM60122	Advanced Diploma of Engineering	Release 2. Minor change. Equivalent. The following units have been added: MEM24040

MEM Release 4.0		MEM Release 5.0		Comment / Equivalence
Code	Title	Code	Title	
				- MEM24041 - MEM24042 - MEM24043 - MEM24044. The following units have been updated: - MEM24022 - MEM24024 - MEM24026 - MEM24028 - MEM24030 - MEM24031. The following units have been removed: - MEM24001 - MEM24003 - MEM24005 - MEM24007 - MEM24009.
MEM31822	Certificate III in Engineering - Textile Mechanic	MEM31822	Certificate III in Engineering - Textile Mechanic	Release 2. Minor change. Equivalent. The following units have been removed: MSTTX3002.

The following tables map MEM Release 4.0 qualifications and units of competency with:

- MEM Release 3.0 Manufacturing and Engineering Training Package

NOTE: Those qualifications deemed NOT EQUIVALENT have been highlighted in blue

MEM qualifications – mapping to MEM Release 4.0 qualifications

MEM Release 3.0		MEM Release 4.0		Comment / Equivalence
Code	Title	Code	Title	
		MEM50422	Diploma of Engineering – Non-Destructive Testing	Release 1. New qualification
		MEM50522	Diploma of Engineering - Materials	Release 1. New qualification
		MEM50622	Diploma of Engineering - Prototyping	Release 1. New qualification
		MEM50722	Diploma of Engineering - Planning	Release 1. New qualification

MEM Release 3.0		MEM Release 4.0		Comment / Equivalence
Code	Title	Code	Title	
		MEM50822	Diploma of Applied Technologies	Release 1. New qualification
		MEM60322	Advanced Diploma of Engineering - Planning	Release 1. New qualification

The following tables map MEM Release 3.0 qualifications and units of competency with:

- MEM Release 2.0-2.1 Manufacturing and Engineering Training Package

NOTE: Those qualifications deemed NOT EQUIVALENT have been highlighted in blue

MEM qualifications – mapping to MEM Release 3.0 qualifications

MEM Release 2.0-2.1		MEM Release 3.0		Comment / Equivalence
Code	Title	Code	Title	
MEM30319	Certificate III in Engineering - Fabrication Trade	MEM31922	Certificate III in Engineering - Fabrication Trade	Release 1. New and revised electives units added – equivalent.

The following tables map MEM Release 3.0 qualifications and units of competency with:

- MEM05 Metal and Engineering Training Package
- MEM Release 2.0-2.1 Manufacturing and Engineering Training Package
- LMT07 Textiles, Clothing and Footwear Training Package
- CUV11 Visual Arts, Crafts and Design Training Package

NOTE: Those qualifications deemed NOT EQUIVALENT have been highlighted in blue

MEM05 qualifications – mapping to MEM Release 3.0 qualifications

MEM05 Release 11.1		MEM Release 3.0		Comment / Equivalence
Code	Title	Code	Title	
MEM10205	Certificate I in Boating Services	MEM10222	Certificate I in Boating Services	Release 1. Reformatted – equivalent.
MEM20305	Certificate II in Boating Services	MEM20322	Certificate II in Boating Services	Release 1. Reformatted – equivalent.
MEM20413	Certificate II in Engineering Pathways	MEM20422	Certificate II in Engineering Pathways	Release 1. Reformatted – equivalent.
		MEM31622	Certificate II in Engineering - Patternmaking Trade	Release 1. New qualification. Content from Certificate III in Engineering –

MEM05 Release 11.1		MEM Release 3.0		Comment / Equivalence
Code	Title	Code	Title	
				Fabrication Trade utilised to develop individualised qualification.
MEM30405	Certificate III in Engineering - Electrical/Electronic Trade	MEM30422	Certificate III in Engineering - Electronic Trade	Release 1. Supersedes MEM30405, but is not equivalent.
MEM30505	Certificate III in Engineering - Technical	MEM30522	Certificate III in Engineering - Technical	Release 1. Reformatted – equivalent.
MEM40205	Certificate IV in Boating Services	MEM40222	Certificate IV in Boating Services	Release 1. Reformatted – equivalent.
MEM40311	Certificate IV in Advanced Jewellery Manufacture	MEM40322	Certificate IV in Advanced Jewellery Manufacture	Release 1. Reformatted – equivalent.
MEM40412	Certificate IV in Engineering Drafting	MEM40422	Certificate IV in Engineering Drafting	Release 1. Reformatted – equivalent.
MEM50212	Diploma of Engineering - Technical	MEM50222	Diploma of Engineering - Technical	Release 1. Reformatted – equivalent.
MEM50311	Diploma of Jewellery and Object Design	MEM50322	Diploma of Jewellery and Object Design	Release 1. Reformatted – equivalent.
MEM60112	Advanced Diploma of Engineering	MEM60122	Advanced Diploma of Engineering	Release 1. Reformatted – equivalent.
MEM60211	Advanced Diploma of Jewellery and Object Design	MEM60222	Advanced Diploma of Jewellery and Object Design	Release 1. Reformatted – equivalent.
MEM80112	Graduate Diploma of Engineering	MEM80122	Graduate Diploma of Engineering	Release 1. Reformatted – equivalent.

MEM R2.0 Qualification mapping to MEM Release 3.0 Qualifications

MEM Release 2.0		MEM Release 3.0		Comment / Equivalence
Code	Title	Code	Title	
MEM10119	Certificate I in Engineering	MEM10119	Certificate I in Engineering	Release 2. Equivalent, units updated and include suitable gemstone units
MEM30619	Certificate III in Jewellery Manufacture	MEM30619	Certificate III in Jewellery Manufacture	Release 3. Equivalent,

MEM Release 2.0		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
				suitable gemstone units added
MEM30819	Certificate III in Locksmithing	MEM30819	Certificate III in Locksmithing	Release 3. Equivalent, additional new Locksmithing units included
MEM31319	Certificate III in Refrigeration and Air Conditioning	MEM31322	Certificate III in Refrigeration and Air Conditioning	Release 1. Supersedes and equivalent. Refined packaging rules
MEM40119	Certificate IV in Engineering	MEM40119	Certificate IV in Engineering	Release 2. Equivalent, packaging rules amended and elective unit codes updated.

LMT07 Qualification mapping to MEM Release 3.0 Qualifications

LMT07 Release 4.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
LMT31909	Certificate III in Engineering - Textile Mechanic	MEM31822	Certificate III in Engineering - Textile Mechanic	Release 1. Reformatted – equivalent.

CUV11 Qualification mapping to MEM Release 3.0 Qualifications

CUV11 Release 1.0		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
CUV20311	Certificate II in Opal Cutting and Polishing			Qualification deleted, suitable units transferred to MEM Jewellery qualifications
CUV40611	Certificate IV in Opal Cutting and Polishing			Qualification deleted, suitable units transferred to MEM Jewellery qualifications. For establishing a small business refer to the BSB training package

The following tables map the MEM Manufacturing and Engineering Training Package Release 2.1 qualifications and units of competency with the **MEM05 Metal and Engineering Training Package**.

MEM05 qualifications – mapping to MEM Release 2.1 qualifications

MEM05 Release 11.1		MEM Release 2.1		Comment / Equivalence
Code	Title	Code	Title	
MEM10105	Certificate I in Engineering	MEM10119	Certificate I in Engineering (Release 1)	Supersedes MEM10105 but is not equivalent.
MEM20205	Certificate II in Engineering - Production Technology	MEM20219	Certificate II in Engineering – Production Technology (Release 1)	Supersedes and is equivalent to MEM20205.
MEM30105	Certificate III in Engineering - Production Systems	MEM30119	Certificate III in Engineering – Production Systems (Release 2)	Supersedes and is equivalent to MEM30105.
MEM30205	Certificate III in Engineering - Mechanical Trade	MEM30219	Certificate III in Engineering - Mechanical Trade (Release 2)	Supersedes and is equivalent to MEM30205.
MEM30305	Certificate III in Engineering - Fabrication Trade	MEM30319	Certificate III in Engineering – Fabrication Trade (Release 2)	Supersedes and is equivalent to MEM30305.
MEM30605	Certificate III in Jewellery Manufacture	MEM30619	Certificate III in Jewellery Manufacture (Release 2)	Supersedes and is equivalent to MEM30605.
MEM30705	Certificate III in Marine Craft Construction	MEM30719	Certificate III in Marine Craft Construction (Release 2)	Supersedes and is equivalent to MEM30705.
MEM30805	Certificate III in Locksmithing	MEM30819	Certificate III in Locksmithing (Release 2)	Supersedes and is equivalent to MEM30805.
MEM30905	Certificate III in Boating Services	MEM30919	Certificate III in Boating Services (Release 2)	Supersedes and is equivalent to MEM30905.
MEM31010	Certificate III in Watch and Clock Service and Repair	MEM31019	Certificate III in Watch and Clock Service and Repair (Release 2)	Supersedes and is equivalent to MEM3101.
MEM31112	Certificate III in Engineering - Composites Trade	MEM31119	Certificate III in Engineering – Composites Trade (Release 2)	Supersedes and is equivalent to MEM31112.
MEM30205	Certificate III in Engineering - Mechanical Trade	MEM31319	Certificate III in Refrigeration and Air Conditioning (Release 2)	Release 1. New qualification. Supersedes but is not

MEM05 Release 11.1		MEM Release 2.1		Comment / Equivalence
Code	Title	Code	Title	
	(Refrigeration and Air Conditioning)			equivalent to MEM30205.
MEM30205	Certificate III in Engineering - Mechanical Trade (Fixed and Mobile Plant Mechanic)	MEM31419	Certificate III in Engineering – Fixed and Mobile Plant Mechanic (Release 2)	Release 1. New qualification. Supersedes but is not equivalent to MEM30205.
MEM30205	Certificate III in Engineering - Mechanical Trade (Toolmaking Trade)	MEM31519	Certificate III in Engineering – Toolmaking Trade (Release 2)	Release 1. New qualification. Supersedes but is not equivalent to MEM30205.
MEM30305	Certificate III in Engineering - Fabrication Trade (Casting and Moulding Trade)	MEM31719	Certificate III in Engineering – Casting and Moulding Trade (Release 2)	Release 1. New qualification. Supersedes but is not equivalent to MEM30305.
MEM40105	Certificate IV in Engineering	MEM40119	Certificate IV in Engineering (Release 1)	Release 1. Supersedes and is equivalent to MEM40105.
MEM50105	Diploma of Engineering - Advanced Trade	MEM50119	Diploma of Engineering – Advanced Trade (Release 1)	Release 1. Supersedes and is equivalent to MEM50105

MEM qualifications – mapping MEM Release 1.2 to MEM Release 2.0 qualifications

MEM Release 1.2		MEM Release 2.0		Comment / Equivalence
Code	Title	Code	Title	
MEM31215	Certificate III in Engineering – Industrial Electrician	MEM31219	Certificate III in Engineering – Industrial Electrician	Release 1. Supersedes and is equivalent to MEM31215

MEM units of competency – mapping to MEM Release 5.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM24001	Perform basic penetrant testing	MEM18110	Perform basic penetrant testing	Release 1. Supersedes and is equivalent to MEM24001. • Application – ○ Unit previously applied to both tradespersons and technicians. ○ Application has been changed to more clearly indicate application to tradespersons and apprentices only. ○ One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence. • Performance Evidence – Removed reference to Standards. • Knowledge Evidence - New point added on classification of penetrants and viewing characteristics • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24002	Perform penetrant testing	MEM24022	Undertake penetrant tests	Release 1. Supersedes and is equivalent to MEM24002. • Title changed to 'Undertake penetrant tests'. • Application - Error reference in second paragraph to re-assessment of competency deleted. Industry coverage advice in third paragraph updated. Reference to technical standards updated. • Prerequisites - MEM11011, MEM18001 and MEM24012 have been removed. • Elements and Performance Criteria (PC) – ○ PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in Performance Evidence (PE) or Knowledge Evidence (KE). ○ PC 5.1 moved to 2.2 re PPE and safe work practices. ○ PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ Performance Criteria 3.1 and 3.2 - minor edits. ○ PC 5.3 moved to PC 3.5 to reflect flow of work. ○ PC 4.1 edited to reflect Working
----------	---------------------------	----------	---------------------------	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				Group advice on wording. ○ PC 4.8 Minor simplification edit • Range of Conditions (ROC) – ○ WHS regulatory requirements added • Performance Evidence -. ○ New points added to align with international standards ○ Clarification on frequency and volume ○ Removed reference to Standards. • Knowledge Evidence - knowledge of test limitations added to first point. Eight points edited to make it clear that it applies to the test equipment and materials. Last point deleted as a duplication. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM24003	Perform basic magnetic particle testing	MEM18111	Perform basic magnetic particle testing	Release 1. Supersedes and is equivalent to MEM24003. • Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence. • PC 3.4 - new PC minimising environmental impact of the NDT test • PC 3.6 - new PC on de-magnetisation of test material • ROC - Two new rows added. Two rows clarify scope of magnetic media and magnetic particle testing equipment. • KE - previous 3rd point deleted as it was a duplication”. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24004	Perform magnetic particle testing	MEM24024	Undertake magnetic particle tests	Release 1. Supersedes and is equivalent to MEM24004. • Title changed to 'Undertake magnetic particle tests'. • Application – ○ Error reference in second paragraph to re-assessment of competency deleted. ○ Industry coverage advice in third paragraph updated. ○ Clarification on the cohort of technicians this unit applies to. ○ Reference to technical standards updated. • Prerequisites - MEM11011, MEM18001 and MEM24012 have been removed. • Elements and PCs – ○ PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE. ○ PC 5.1 moved to PC 2.2 re PPE and safe work practices. ○ PC2.3 Changed ○ PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 2.5 Clarification added ○ PC 5.2 moved to PC 3.6 to reflect flow of work.
----------	-----------------------------------	----------	-----------------------------------	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ PC 4.2,4.3 and 4.4 Clarified ○ PC 4.7 now PC 3.7. New PC 4.7 added for consistency with technical standards. ○ PC 4.1 edited to reflect Working Group advice on wording. • ROC – ○ Minor clarification edits to row 1. • PE - Requirements for number and type of assessment tasks updated to be consistent with technical standards. • KE – multiple changes to clarify the connection to the international standards. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM24005	Perform basic eddy current testing	MEM18112	Perform basic eddy current testing	Release 1. Supersedes and is equivalent to MEM24005. • Application – As this unit previously applied to both tradespersons and technicians, the application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence. Sentence in 2nd paragraph covering re-assessment of competency has been deleted as it is an error. • ROC - New row added to clarify the scope of preparation processes. • KE - Points considered a duplication of other knowledge evidence have been deleted • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24006	Perform eddy current testing	MEM24026	Undertake eddy current tests	Release 1. Supersedes and is equivalent to MEM24006. • Title changed to 'Undertake eddy current tests'. • Application – ○ reference error in second paragraph to re-assessment of competency deleted ○ industry coverage advice in third paragraph updated. ○ reference to technical standards updated. • Prerequisites - MEM11011, MEM18001 and MEM24012 have been removed. • Elements and PCs – ○ PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE. ○ PC 5.1 moved to PC 2.2 re PPE and safe work practices. ○ PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 2.5 Minor edit to remove duplication. ○ PC 3.5 moved from PC 5.2. ○ PC 3.6 added for consistency with technical standards. ○ PC 4.1 edited to reflect Working
----------	------------------------------	----------	------------------------------	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				Group advice on wording. • ROC – ○ references to technical standards updated. ○ 1 new row added – Test Equipment • PE - Requirements for number and type of assessment tasks updated to be consistent with technical standards. • KE – Points reorganised and clarified to better align to new international standards. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM24007	Perform ultrasonic thickness testing	MEM18113	Perform ultrasonic thickness testing	Release 1. Supersedes and is equivalent to MEM24007. • Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence. • PC - New PC 3.3 added to be consistent with knowledge evidence on use of calibration blocks • ROC - New row added to clarify the scope of ultrasonic equipment used in thickness testing. • KE - Point considered a duplication deleted. Minor changes made to clarify some terms and additional wording included on discontinuities and abnormalities identified through thickness testing. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24008	Perform ultrasonic testing	MEM24028	Undertake ultrasonic tests	Release 1. Supersedes and is equivalent to MEM24008. • Title changed to 'Undertake ultrasonic tests'. • Application – ○ Error reference in second paragraph to re-assessment of competency deleted. ○ Industry coverage advice in third paragraph updated. ○ Reference to technical standards updated. • Prerequisites - MEM11011, MEM18001 and MEM24012 have been removed. • Elements and PCs – ○ PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE. ○ PC 5.1 moved to PC 2.2 re PPE and safe work practices. ○ PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ Reference to standard operating procedures (SOPs) added to PCs 3.2, 3.3, and 3.7. ○ PC 4.1 edited to reflect Working Group advice on wording.
----------	----------------------------	----------	----------------------------	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ PC 4.5 deleted as it duplicates PC 4.4. • ROC – ○ 2 new rows added • PE - Requirements for number and type of assessment tasks updated to be consistent with technical standard”. • KE - Points reorganised and clarified to better align to new international standards • Assessment Conditions – ○ Wording changed to align with the new title of the unit. ○ Third dot point clarified ○ last dot point removed as it is a duplication of the first dot point.

MEM24009	Perform basic radiographic testing	MEM18114	Perform basic radiographic testing	Release 1. Supersedes and is equivalent to MEM24009. • Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. Reference to knowledge of metallurgy has been deleted as this was intended for technicians and is now not relevant to the revised unit application. References to regulations and standards have been made clearer including regulations covering ionizing radiation. • Elements and PCs – ○ PC 4.1 deleted as it is better covered as knowledge evidence. ○ New PC 4.1 changed to make explicit skill in minimising radiation exposure applies to self and others. ○ Element 5 and Pcs added in reference to reporting of results. • ROC - New row added to provide the range of radiographic film covered by the unit. • KE - Duplication point deleted, and minor clarifications of wording added. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.
----------	------------------------------------	----------	------------------------------------	---

MEM24010	Perform radiographic testing	MEM24030	Undertake radiographic tests	Release 1. Supersedes and is equivalent to MEM24010. • Title changed to 'Undertake radiographic tests'. • Application – ○ Reference error in second paragraph to re-assessment of competency deleted. ○ Industry coverage advice in third paragraph updated. ○ Exclusion statement re digital and computed radiography added. ○ Reference to technical standards updated. • Prerequisites - MEM11011, MEM18001 and MEM24012 have been removed. • Elements and PCs – ○ PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE. ○ PC 1.2 moved to PC 2.2 ○ PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 4.8 moved to PC3.6. ○ PC 4.1 edited to reflect Working Group advice on wording.
----------	------------------------------	----------	------------------------------	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ PC 4.8 simplified. ○ Element 6 embedded into other elements • ROC – ○ Two rows added. • PE – ○ Requirements for number and type of assessment tasks updated to be consistent with technical standards. ○ Evidence requirements for radiographic safe work practices and controls added as transfer from ROC. ○ 7th point deleted as a duplication of the fifth point. • KE - Knowledge requirements for radiation safe work practices and controls added. Other minor edits made for clarification. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24011	Establish non-destructive tests	MEM24031	Establish procedures for non-destructive tests	Release 1. Supersedes and is equivalent to MEM24011. • Application - The Application has been edited to remove ambiguity and to make it clear that it is the NDT applications that are being researched and not the test techniques. The sentence in 2nd paragraph covering re-assessment of competency has been deleted as it is an error. The industry application references have been simplified and the references to technical standards updated. An • Prerequisites – ○ additional pre-requisite MEM30007 ‘Select common engineering materials’ has been added based on requirements in the updated Australian NDT technical standards. ○ five prerequisites removed ○ codes for all prerequisites updated. • Elements and PCs – ○ Element 1 simplified ○ PC 2.2 has been reworded to be consistent with detail required in PE and KE ○ Element 3 Clarified ○ Element 4 wording has been simplified. ○ PC 4.7 added to be consistent with technical standards requirements.
----------	---------------------------------	----------	--	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ Element 5 reworded to align with other changes. • ROC - Row added to clarify scope of relevant information from previous and past NDT tests. • PE - First point amended as the point is covered by the reference to establishing NDT test procedures. Reference to materials analysis added to 3rd point for consistency with technical standards. Other point reworded for clarity. • KE – Changes made for clarification. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24014	Perform thermography tests	MEM24033	Undertake thermography tests	Release 1. Supersedes and is equivalent to MEM24014. • Title changed to 'Undertake thermography tests' to be consistent with other NDT technician units. • Application - Advice on selection of other units updated. Reference to technical standards updated. • Prerequisites - MEM16006 added as a prerequisite along with its prerequisite of MEM13015. Additionally, MEM24020 was updated to MEM24039. • Elements and PCs – ○ Element 1 changed to 'Establish..' to be consistent with unit title. ○ PC 1.1 made more specific. ○ PC 1.2 and 1.3 combined and moved to PC 2.2. ○ PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 2.4 'material' changed to inspection area' as this more accurately reflects the task. ○ PC 4.1 added based on Working Group advice. • ROC – First row removed for duplication.
----------	----------------------------	----------	------------------------------	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				• KE - KE first sentence edited for additional clarity. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24015	Perform digital and computed radiography	MEM24034	Undertake digital and computed radiography	Release 1. Supersedes and is equivalent to MEM24015. • Title changed to 'Undertake digital and computed radiography' to be consistent with other NDT technician units. • Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated. • Prerequisites - MEM11011 and MEM18001 deleted. Code for MEM13018 corrected. Additionally, the following pre-requisite unit codes and/or titles were updated: ○ MEM24010 Perform radiographic testing was changed to MEM24030 Undertake radiographic tests. ○ MEM24020 Apply materials technology principles to non-destructive testing was changed to MEM24039 Apply materials technology principles to non-destructive testing. • Elements and PCs – ○ Element 1 changed to 'Establish..' to be consistent with unit title. ○ PC 1.1 made more specific. ○ PC 1.2 and 1.3 combined and moved to PC 2.2. ○ Minor edit to PC 2.3.
----------	--	----------	--	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ PC 3.1 edited to recognise that the PC also requires determining whether special access requirements are needed. ○ PC 6.1 added based on Working Group advice. • ROC - First row deleted for duplication. • PE - PE has been edited to be consistent with technical standards requirements including more specific PE point on safe work practices for minimising radiation exposure. • KE - more specific KE point on knowledge of safe work practices and controls for minimising radiation exposure • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24016	Perform eddy current array tests	MEM24035	Undertake eddy current array tests	Release 1. Supersedes and is equivalent to MEM24016. • Title changed to 'Undertake eddy current array tests' to be consistent with other NDT technician units. • Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated. • Prerequisites - MEM11011 and MEM18001 deleted. MEM30007 added. Additionally, the following pre-requisite unit codes and/or titles were updated: ○ MEM24006 Perform eddy current testing was changed to MEM24026 Undertake eddy current tests. ○ MEM24020 Apply materials technology principles to non-destructive testing was changed to MEM24039 Apply materials technology principles to non-destructive testing. • Elements and PCs – ○ Element 1 changed to 'Establish..' to be consistent with unit title. ○ PC 1.1 made more specific. ○ PC 1.2 and 1.3 combined and moved to PC 2.2. ○ PC 2.3 edited to recognise that the skill is in determining whether special
----------	----------------------------------	----------	------------------------------------	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				access requirements are needed rather than presuming they are always required. ○ PC 4.1 added based on Working Group advice. • ROC – First row deleted for duplication. • PE - PE has been edited to be consistent with technical standards requirements and include volume and frequency requirements. • KE - First sentence has been edited for additional clarity. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

MEM24017	Perform visual testing to non-destructive testing standards	MEM24036	Undertake visual testing to non-destructive testing standards	Release 1. Supersedes and is equivalent to MEM24017. • Title changed to 'Undertake visual testing to non-destructive testing standards' to be consistent with other NDT technician units. • Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated. • Prerequisites - MEM24012 deleted. MEM24039 and MEM30007 added. • Elements and PCs – ○ Element 1 changed to 'Establish..' to be consistent with unit title. ○ PC 1.1 made more specific. ○ PC 1.2 and 1.3 combined and moved to PC 2.2. ○ PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 2.4 deleted as it duplicated PC 1.1. ○ PC 5.1 edited based on Working Group advice. • ROC - First row deleted for duplication. • PE has been edited to be consistent with technical standards requirements. • Assessment conditions – Third dot point clarified, and
----------	---	----------	---	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				last dot point removed as it is a duplication of the first dot point.

MEM24018	Perform advanced ultrasonic testing	MEM24037	Undertake advanced ultrasonic testing	Release 1. Supersedes and is equivalent to MEM24018. • Title changed to 'Undertake advanced ultrasonic testing' to be consistent with other NDT technician units. • Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated. • Prerequisites - MEM11011 and MEM18001 deleted. MEM30007 added. Additionally, the following pre-requisite unit codes and/or titles were updated: ○ MEM24008 Perform ultrasonic testing was changed to MEM24028 Undertake ultrasonic tests. ○ MEM24020 Apply materials technology principles to non-destructive testing was changed to MEM24039 Apply materials technology principles to non-destructive testing. • Elements and PCs – ○ Element 1 changed to 'Establish..' to be consistent with unit title. ○ PC 1.1 made more specific. ○ PC 1.2 and 1.3 combined and moved to PC 2.2. ○ PC1.5 deleted as a duplication of PC1.1 ○ PC 2.3 edited to recognise that the
----------	-------------------------------------	----------	---------------------------------------	---

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				skill is in determining whether special access requirements are needed rather than presuming they are always required. ○ PC 2.4 - added 'inspection areas' for clarity. ○ PC 5.1 added based on Working Group advice. • ROC - First row deleted for duplication. • PE has been edited to be consistent with technical standards requirements. • KE - First sentence has been edited for additional clarity • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.
MEM24019	Apply codes and standards to non-destructive testing	MEM24038	Apply codes and standards to non-destructive testing	Release 1. Supersedes and is equivalent to MEM24019. • Application - Reference to technical standards updated. • Prerequisites - MEM09229 deleted. • KE - First sentence has been edited for additional clarity. • Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM24020	Apply materials technology principles to non-destructive tests	MEM24039	Apply materials technology principles to non-destructive tests	Release 1. Supersedes and is equivalent to MEM24020. - Application - Reference to application to Level 2 and 3 technicians deleted as these levels are not related to VET but to the technical standards. The unit is open to all NDT technicians to study. Reference to technical standards updated. - ROC – Last row removed for duplication.
		MEM24040	Undertake basic penetrant tests	Release 1. New unit.
		MEM24041	Undertake basic magnetic particle tests	Release 1. New unit.
		MEM24042	Undertake basic eddy current tests	Release 1. New unit.
		MEM24043	Undertake ultrasonic thickness tests	Release 1. New unit.
		MEM24044	Undertake basic radiographic tests	Release 1. New unit.

MEM06001	Perform hand forging	MEM06010	Perform hand forging	Release 1. Supersedes and is equivalent to MEM06001. • Application ○ Changed tool categories from ‘hand tools and formers’ to hand tools, forming tools, anvil tools, and floor tools. The same category changes have been made to PC 2.1 and Range of Conditions. ○ Changed ‘apply hand forging techniques and operate heat treatment equipment’ to ‘operate heating equipment to heat metal to forging temperatures and apply hand forging techniques’ (‘Heat treatment’ is a post-forging process not covered in this unit.) ○ Added (same changes made to all units) ‘Commonwealth and state/territory laws and regulations governing work and training environments must be complied with.’ • Elements and Performance Criteria ○ PC 2.1 changed to align with tool categories in Application ○ PC 2.4 ‘select appropriate volume of material’ added to align with
----------	----------------------	----------	----------------------	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				measurement and calculation requirements in the current and proposed KE ○ PC 3.2 changed 'equipment' to 'heating equipment' ● Range of Conditions ○ Tools as per categories in Application. Tools added. ○ 'Heating equipment' types expanded to include solid-fuel, oil, induction, and ceramic-chip systems. (Same changes made to all units that specify heating equipment.) ● Performance Evidence ○ tool categories as in Application ○ 'heat treatment' removed (incorrect) ● Knowledge Evidence ○ Tools as per categories in Application ○ 'Determining volumes' added to 'Calculations' .

MEM06002	Perform hammer forging	MEM06011	Perform power hammer forging	Release 1. Supersedes and is equivalent to MEM06002. • Application ○ Changed 'operate heating devices' to 'operate heating equipment to heat metal to forging temperatures' ○ Changed 'hammer and power hammer tools and formers' to 'power hammer and power-hammer tools and forming tools' • Elements and Performance Criteria ○ PC 2.1 Changed 'Select material for use with specific tools and formers' to 'Select material to meet job requirements' ○ PC 2.2 Changed 'Make material calculations using volumes and weights that include provision for thermal expansion/contraction, oxidation and shrinkage' to 'Calculate material volumes and weights, including provision for thermal expansion/contraction, oxidation, and shrinkage'. Aligns with Knowledge Evidence mathematical knowledge. ○ PC 3.2 Replaced 'forging machine'
----------	------------------------	----------	------------------------------	---

				with 'power hammer and heating equipment'. ○ PC 4.1 Changed 'Select and apply appropriate hammer forging technique' to 'Select and use power-hammer forging techniques to meet job requirements' ○ PC 4.3 Changed 'Apply correct techniques to the handling of hot metal with regard to balancing and pivoting' to 'Apply safe techniques, including balancing and pivoting, for handling hot metal' ○ PC 4.4 Changed 'Apply the correct heating process' to 'Apply heating processes appropriate to materials and job requirements' ● Range of Conditions ○ Materials: removed 'lead'. Added 'wrought iron' ○ Material calculations: Added 'oxidisation and shrinkage allowance' ○ Replaced 'hammer tools and formers' with 'power-hammer tools' and 'power-hammer forming tools'.
--	--	--	--	--

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
				○ Added 'power-hammer forming techniques' and expanded 'defects'. ○ Heating equipment has been updated to include: ▪ diesel equipment ▪ electrical equipment ▪ induction-forging equipment ▪ gas equipment ▪ solid-fuel equipment ▪ oil-fuel equipment ▪ ceramic-chip equipment ▪ oxy-fuel equipment. ● Performance and Knowledge Evidence ○ Replaced 'forging machine' with 'power hammer'.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM06005	Perform drop and upset forging	MEM06012	Perform drop and upset forging	Release 1. Supersedes and is equivalent to MEM06005. • Application ○ Changed ‘where material is forged to specified dimensional accuracy and finish’ to ‘to forge material to meet size, shape and finish specifications’ • Elements and Performance Criteria. ○ Moved PC 5.1 to Element 4. ○ Changed wording such as ‘correct’ and ‘appropriate’ to add more specificity (e.g. ‘to meet job requirements’). • Knowledge Evidence ○ Changed terminology to align with that used in above fields.
MEM06006	Repair springs	MEM06013	Repair springs	Release 1. Supersedes and is equivalent to MEM06006. • Elements and Performance Criteria ○ Added PC 6.5 ‘Record spring test results in accordance with SOPs’ to align with Knowledge Evidence requirement ‘procedures for recording spring test results’.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM06008	Hammer forge complex shapes	MEM06014	Perform power hammer forging of complex shapes	Release 1. Supersedes and is equivalent to MEM06008. Changed terminology throughout from 'forging machine' to 'power hammer' • Application ○ Added text to differentiate hammer forging from forging with hand-held hammers • Elements and Performance Criteria ○ Removed '... and heavy parts' from Element 3 'Forge complex shapes ...' . ○ PC 4.2 Changed 'techniques used to heat heavy and complex forgings' to 'techniques to heat complex forgings'. ○ PC 4.3 Added 'preheating' as well as 'post-forging heat treatment' • Range of Conditions ○ Changed 'forge' to 'forging' and reworded items for clarity. ○ Added categories to 'forging plant equipment'.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM06009	Hand forge complex shapes	MEM06015	Hand forge complex shapes	Release 1. Supersedes and is equivalent to MEM06009. - Elements and Performance Criteria - Element 2 Added 'forming tools' - PC 2.2 Added 'forming tools' - Element 3 Changed 'bundling' to 'bending'. - PC 3.2 reworded for clarity. - Range of Conditions - Expanded tool categories to include floor, anvil, and hand forming tools. - Added additional hand forging techniques - Performance and Knowledge Evidence - Changed techniques and calculations to align with those used in PCs.
		MEM06016	Perform press forging	Release 1. New unit.
		MEM06017	Perform press forging for complex shapes	Release 1. New unit.
MEM05004	Perform routine oxy fuel gas welding	MEM05004	Perform routine oxy fuel gas welding	Release 2. Unit code updated in Application. Minor change. Equivalent.
MEM05049	Perform routine gas tungsten arc welding	MEM05049	Perform routine gas tungsten arc welding	Release 2. Unit code updated in Application. Minor change. Equivalent

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM05050	Perform routine gas metal arc welding	MEM05050	Perform routine gas metal arc welding	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM05052	Apply safe welding practices	MEM05052	Apply safe welding practices	Release 3. Unit code updated in Application. Minor change. Equivalent
MEM05056	Perform routine flux core arc welding	MEM05056	Perform routine flux core arc welding	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM05057	Perform routine submerged arc welding	MEM05057	Perform routine submerged arc welding	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM05063	Write and proof robotic welding system programs	MEM05063	Write and proof robotic welding system programs	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM05069	Undertake advanced weld repair and maintenance	MEM05069	Undertake advanced weld repair and maintenance	Release 2. Unit title for the unit code MEM05061 corrected in the prerequisites. Minor change. Equivalent
MEM05077	Perform welding inspection	MEM05077	Perform welding inspection	Release 2. Unit title for the unit code MEM05061 corrected in the prerequisites. Minor change. Equivalent
MEM05081	Perform welds to code standards using gas tungsten arc welding process	MEM05081	Perform welds to code standards using gas tungsten arc welding process	Release 2. Unit title for the unit code MEM05061 corrected in the Application. References to manual metal arc welding (MMAW) updated to gas tungsten arc welding (GTAW). Minor change. Equivalent
MEM11010	Operate mobile load shifting equipment	MEM11010	Operate mobile load shifting equipment	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM11023	Operate a bridge and gantry crane	MEM11023	Operate a bridge and gantry crane	Release 2. Unit code updated in Application. Minor change. Equivalent

MEM Release 4.0		MEM Release 5.0		
Code	Title	Code	Title	Comment / Equivalence
MEM11024	Undertake basic rigging	MEM11024	Undertake basic rigging	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity	MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM15004	Perform inspection	MEM15004	Perform inspection	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM18051	Fault find and repair/rectify complex electrical circuits	MEM18051	Fault find and repair/rectify complex electrical circuits	Release 2. Dual banding removed. Minor change. Equivalent.
MEM19018	Repair jewellery items	MEM19018	Repair jewellery items	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM27025	Maintain, diagnose and rectify fluid power controls in mobile equipment	MEM27025	Maintain, diagnose and rectify fluid power controls in mobile equipment	Release 2. Unit title for the unit code MEM27017 corrected in the prerequisites. Minor change. Equivalent.
MEM29002	Commission a cyber-physical system	MEM29002	Commission a cyber-physical system	Release 2. Unit title corrected in Assessment Conditions. Minor change. Equivalent.
MEM50002	Work safely on marine craft	MEM50002	Work safely on marine craft	Release 2. Unit code updated in Application. Minor change. Equivalent
MEM14087	Apply manufactured product design techniques	MEM14087	Apply manufactured product design techniques	Release 2. Metadata updated. Minor change. Equivalent.
MEM48017	Monitor blast furnace operations	MEM48017	Monitor blast furnace operations	Release 2. Metadata updated. Minor change. Equivalent.

	MEM Release 4.0		MEM Release 5.0	
Code	Title	Code	Title	Comment / Equivalence
MEM234031	Manage installation, commissioning or modification of machines and equipment	MEM234031	Manage installation, commissioning or modification of machines and equipment	Release 2. Metadata updated. Minor change. Equivalent.

MEM units of competency – mapping to MEM Release 4.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

	MEM Release 3.0		MEM Release 4.0	
Code	Title	Code	Title	Comment / Equivalence
		MEM234039	Provide technical support for prototyping in large engineering and fabrication projects	Release 1. New unit
		MEM234040	Plan space allocation for large steel based fabrication and construction projects	Release 1. New unit
		MEM234041	Manage steel supply for major fabrication projects	Release 1. New unit
		MEM24014	Perform thermography tests	Release 1. New unit
		MEM24015	Perform digital and computed radiography	Release 1. New unit
		MEM24016	Perform eddy current array tests	Release 1. New unit
		MEM24017	Perform visual testing to non-destructive testing standards	Release 1. New unit
		MEM24018	Perform advanced ultrasonic testing	Release 1. New unit
		MEM24019	Apply codes and standards to non-destructive testing	Release 1. New unit
		MEM24020	Apply materials technology principles to non-destructive testing	Release 1. New unit
		MEM29001	Work in industry 4.0	Release 1. New unit
		MEM29002	Commission a cyber-physical system	Release 1. New unit
		MEM29003	Apply CAD and CAM technologies in an Industry 4.0 workplace	Release 1. New unit

	MEM Release 3.0		MEM Release 4.0	
Code	Title	Code	Title	Comment / Equivalence
		MEM29004	Analyse and problem solve a PLC based industrial control system	Release 1. New unit
		MEM29005	Diagnose faults in digital control systems	Release 1. New unit
		MEM29006	Use a SCADA system to assist Industry 4.0 operations in manufacturing and engineering	Release 1. New unit
		MEM29007	Apply networking technology principles for manufacturing and engineering applications	Release 1. New unit
		MEM29008	Analyse and manage data in cloud-based systems	Release 1. New unit
		MEM29009	Prepare configure and test collaborative robots for industrial operations	Release 1. New unit
		MEM29010	Plan and implement preventative maintenance procedures in an Industry 4.0 manufacturing workplace	Release 1. New unit
		MEM29011	Develop a business case for Industry 4.0 implementation in a workplace	Release 1. New unit
		MEM29012	Access and use a digital twin for operational purposes	Release 1. New unit
		MEM29013	Integrate sensors into digital manufacturing processes	Release 1. New unit
		MEM48030	Apply materials selection analysis techniques	Release 1. New unit
		MEM48031	Select ceramic and glass materials for engineering and manufacturing applications	Release 1. New unit
		MEM48032	Select composite materials for engineering and manufacturing applications	Release 1. New unit
		MEM48033	Apply chemistry principles to materials used in manufacturing and engineering processes	Release 1. New unit
		MEM48034	Apply efficient materials management techniques to composite manufacturing operations	Release 1. New unit

MEM05 units of competency – mapping to MEM Release 3.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM09155A	Prepare mechanical models for computer-aided engineering (CAE)	MEM09155	Prepare mechanical models for computer-aided engineering (CAE)	Equivalent
MEM09156A	Prepare mechatronic models for computer-aided engineering (CAE)	MEM09156	Prepare mechatronic models for computer-aided engineering (CAE)	Equivalent
MEM09157A	Perform mechanical engineering design drafting	MEM09157	Perform mechanical engineering design drafting	Equivalent
MEM09158A	Perform mechatronics engineering design drafting	MEM09158	Perform mechatronics engineering design drafting	Equivalent
MEM09201A	Work effectively in an engineering drafting workplace	MEM09201	Work effectively in an engineering drafting workplace	Equivalent
MEM09202A	Produce freehand sketches	MEM09202	Produce freehand sketches	Equivalent
MEM09203A	Measure and sketch site information	MEM09203	Measure and sketch site information	Equivalent
MEM09204A	Produce basic engineering detail drawings	MEM09204	Produce basic engineering detail drawings	Equivalent
MEM09205A	Produce electrical schematic drawings	MEM09205	Produce electrical schematic drawings	Equivalent
MEM09206A	Produce drawings for mechanical services	MEM09206	Produce drawings for mechanical services	Equivalent
MEM09207A	Produce drawings for reticulated services	MEM09207	Produce drawings for reticulated services	Equivalent
MEM09208A	Detail fasteners and locking devices in mechanical drawings	MEM09208	Detail fasteners and locking devices in mechanical drawings	Equivalent
MEM09209A	Detail bearings, seals and other componentry in mechanical drawings	MEM09209	Detail bearings, seals and other componentry in mechanical drawings	Equivalent
MEM09210A	Create 3-D solid models using computer-aided design (CAD) system	MEM09210	Create 3D solid models using computer-aided design (CAD) system	Equivalent
MEM09211A	Produce drawings or models for industrial piping	MEM09211	Produce drawings or models for industrial piping	Equivalent
MEM09212A	Produce detailed drawings of steel to non-steel connections	MEM09212	Produce detailed drawings of steel to non-steel connections	Equivalent
MEM09213A	Produce schematic drawings for hydraulic and pneumatic fluid power systems	MEM09213	Produce schematic drawings for hydraulic and pneumatic fluid power systems	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM09214A	Perform advanced engineering detail drafting	MEM09214	Perform advanced engineering detail drafting	Equivalent
MEM09215A	Supervise detail drafting projects	MEM09215	Supervise detail drafting projects	Equivalent
MEM09216A	Interpret and produce curved 3-D shapes and patterns	MEM09216	Interpret and produce curved 3D shapes and patterns	Equivalent
MEM09217A	Prepare plans for pipe and duct fabrication	MEM09217	Prepare plans for pipe and duct fabrication	Equivalent
MEM09218A	Participate in drafting projects for building services	MEM09218	Participate in drafting projects for building services	Equivalent
MEM09219A	Prepare drawings for fabricated sheet metal products	MEM09219	Prepare drawings for fabricated sheet metal products	Equivalent
MEM09220A	Apply surface modelling techniques to 3-D drawings	MEM09220	Apply surface modelling techniques to 3D drawings	Equivalent
MEM09221A	Create 3-D model assemblies using computer-aided design (CAD) system	MEM09221	Create 3D model assemblies using computer-aided design (CAD) system	Equivalent
MEM09222A	Interpret and maintain or restore original drawings	MEM09222	Interpret and maintain or restore original drawings	Equivalent
MEM14085A	Apply mechanical engineering analysis techniques	MEM14085	Apply mechanical engineering analysis techniques	Equivalent
MEM14086A	Apply mechatronic engineering analysis techniques	MEM14086	Apply mechatronic engineering analysis techniques	Equivalent
MEM14087A	Apply manufactured product design techniques	MEM14087	Apply manufactured product design techniques	Equivalent
MEM14088A	Apply maintenance engineering techniques to equipment and component repairs and modifications	MEM14088	Apply maintenance engineering techniques to equipment and component repairs and modifications	Equivalent
MEM14089A	Integrate mechanical fundamentals into an engineering task	MEM14089	Integrate mechanical fundamentals into an engineering task	Equivalent
MEM14090A	Integrate mechatronic fundamentals into an engineering task	MEM14090	Integrate mechatronic fundamentals into an engineering task	Equivalent
MEM14091A	Integrate manufacturing fundamentals into an engineering task	MEM14091	Integrate manufacturing fundamentals into an engineering task	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM14092A	Integrate maintenance fundamentals into an engineering task	MEM14092	Integrate maintenance fundamentals into an engineering task	Equivalent
MEM15015B	Examine trading practices	MEM15015	Examine trading practices	Equivalent
MEM15016B	Inspect pre-packed articles	MEM15016	Inspect pre-packed articles	Equivalent
MEM15017B	Use and maintain reference standards	MEM15017	Use and maintain reference standards	Equivalent
MEM15018B	Investigate consumer complaints	MEM15018	Investigate consumer complaints	Equivalent
MEM15019B	Conduct a field inspection	MEM15019	Conduct a field inspection	Equivalent
MEM15020C	Perform verification/certification or in-service inspection	MEM15020	Perform inspection of measuring instruments	Equivalent
MEM15021C	Conduct audits of servicing licensees and public weighbridge licensees	MEM15021	Conduct audits of servicing licensees and public weighbridge licensees	Equivalent
MEM15022B	Verify reference standards	MEM15022	Verify reference standards	Equivalent
MEM18070C	Modify complex electrical circuits and systems	MEM18070	Modify complex electrical circuits and systems	Equivalent
MEM19023A	Apply drawing and rendering techniques to jewellery or object design	MEM19023	Apply drawing and rendering techniques to jewellery or object design	Equivalent
MEM19024A	Use CAD to create and display 3D jewellery and object models	MEM19024	Use computer-aided design (CAD) to create and display 3D jewellery or object models	Equivalent
MEM19025A	Create and present designs for jewellery and other 3D objects	MEM19025	Create and present designs for jewellery or other 3D objects	Equivalent
MEM19026A	Investigate quality and application of jewellery materials	MEM19026	Investigate quality and application of jewellery materials	Equivalent
MEM19027A	Produce life drawings for presenting jewellery and object designs	MEM19027	Produce life drawings for presenting jewellery or object designs	Equivalent
MEM19028A	Select materials and new technologies for jewellery and 3D object design applications	MEM19028	Select materials and new technologies for jewellery or 3D object design applications	Equivalent
MEM19029A	Produce a professional jewellery design and 3D object portfolio	MEM19029	Produce a professional jewellery design or 3D object portfolio	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM19030A	Research and design sustainable objects	MEM19030	Research and recommend sustainable design improvements	Equivalent
MEM19031A	Produce renderings and technical drawings for jewellery and object design construction	MEM19031	Produce renderings and technical drawings for jewellery or object design construction	Equivalent
MEM19032A	Design and implement mechanisms in jewellery items	MEM19032	Design and implement mechanisms in jewellery items	Equivalent
MEM19033A	Create silversmithing objects	MEM19033	Create silversmithing objects	Equivalent
MEM19034A	Apply chain manufacture process	MEM19034	Apply chain manufacture process	Equivalent
MEM19035A	Plan and apply casting techniques for jewellery and object designs	MEM19035	Plan and apply casting techniques for jewellery or object designs	Equivalent
MEM19036A	Use specialised techniques to produce jewellery and objects	MEM19036	Use specialised techniques to produce jewellery or objects	Equivalent
MEM19037A	Plan and implement chenier fabrication process	MEM19037	Plan and implement chenier fabrication process	Equivalent
MEM19038A	Apply traditional techniques to jewellery and 3D object production	MEM19038	Apply traditional techniques to jewellery or 3D object production	Equivalent
MEM19039A	Plan, conduct and supervise a jewellery and object exhibition	MEM19039	Plan, conduct and supervise a jewellery or object exhibition or program	Equivalent
MEM19040A	Create and manufacture jewellery or object design prototypes for the mass market	MEM19040	Create and manufacture jewellery or object design prototypes for the mass market	Equivalent
MEM19041A	Experiment with jewellery or object designs	MEM19041	Experiment with jewellery or object designs	Equivalent
MEM19042A	Render images using computer graphics software	MEM19042	Render images using computer graphics software	Equivalent
MEM19043A	Oversee jewellery or object design production	MEM19043	Oversee jewellery or object design production	Equivalent
MEM19044A	Repair and restore antique jewellery	MEM19044	Repair and restore antique jewellery	Equivalent
MEM19045A	Set gems in channel style settings	MEM19045	Set gems in channel style settings	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM19046A	Apply grain setting techniques	MEM19046	Apply grain setting techniques	Equivalent
MEM19047A	Set gems in claw and bezel style settings	MEM19047	Set gems in claw and bezel style settings	Equivalent
MEM19048A	Develop and apply complex borders and decorations for hand engraving	MEM19048	Develop and apply complex borders and decorations for hand engraving	Equivalent
MEM19049A	Develop and apply heraldic designs for hand engraving	MEM19049	Develop and apply heraldic designs for hand engraving	Equivalent
MEM19050A	Hand carve engraving work	MEM19050	Hand carve engraving work	Equivalent
MEM19051A	Construct multiple stone settings	MEM19051	Construct multiple stone settings	Equivalent
MEM19052A	Produce complex objects using silversmithing techniques	MEM19052	Produce complex objects using silversmithing techniques	Equivalent
MEM19053A	Create complex findings and mechanisms for jewellery items	MEM19053	Create complex findings and mechanisms for jewellery items	Equivalent
MEM19054A	Fabricate platinum jewellery items	MEM19054	Fabricate platinum jewellery items	Equivalent
		MEM19057	Research the gemstone market and complete pre-cutting processes	New unit
		MEM19058	Cut and polish solid gemstones	New unit
		MEM19059	Complete pre-cutting processes for gemstone assemblies	New unit
		MEM19060	Cut and polish gemstone assemblies	New unit
		MEM19061	Carve and polish gemstones	New unit
		MEM19062	Production cut and polish gemstones	New unit
		MEM19063	Use a faceting machine	New unit
		MEM19064	Cut gemstone spheres and beads	New unit
		MEM19065	Obtain rough and polished gemstones	New unit

MEM05 Release 11.1		MEM Release 3.0		Comment / Equivalence
Code	Title	Code	Title	
		MEM19066	Identify the requirements for establishing a gemstone-cutting workshop	New unit
		MEM19067	Apply advanced pre-cutting processes to complex gemstones	New unit
MEM22001A	Perform engineering activities	MEM22001	Perform engineering activities	Equivalent
MEM22002A	Manage self in the engineering environment	MEM22002	Manage self in the engineering environment	Equivalent
MEM22007A	Manage environmental effects of engineering activities	MEM22007	Manage environmental effects of engineering activities	Equivalent
MEM22012A	Coordinate resources for an engineering project or operation	MEM22012	Coordinate resources for an engineering project or operation	Equivalent
MEM22013A	Coordinate engineering projects	MEM22013	Coordinate engineering projects	Equivalent
MEM22014A	Coordinate engineering-related manufacturing operations	MEM22014	Coordinate engineering-related manufacturing operations	Equivalent
MEM22015A	Source and estimate engineering materials requirements	MEM22015	Source and estimate engineering materials requirements	Equivalent
MEM22017A	Coordinate continuous improvement and technical development	MEM22017	Coordinate continuous improvement and technical development	Equivalent
MEM22018A	Coordinate sales and promotion of engineering-related products or services	MEM22018	Coordinate sales and promotion of engineering-related products or services	Equivalent
MEM23003A	Operate and program computers and/or controllers in engineering situations	MEM23003	Operate and program computers and/or controllers in engineering situations	Equivalent
MEM23004A	Apply technical mathematics	MEM23004	Apply technical mathematics	Equivalent
MEM23005A	Apply statistics and probability techniques to engineering tasks	MEM23005	Apply statistics and probability techniques to engineering tasks	Equivalent
MEM23006A	Apply fluid and thermodynamics principles in engineering	MEM23006	Apply fluid and thermodynamics principles in engineering	Equivalent
MEM23007A	Apply calculus to engineering tasks	MEM23007	Apply calculus to engineering tasks	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM23008A	Apply advanced algebra and numerical methods to engineering tasks	MEM23008	Apply advanced algebra and numerical methods to engineering tasks	Equivalent
MEM23052A	Apply basic electro and control scientific principles and techniques in aeronautical engineering	MEM23052	Apply basic electro and control scientific principles and techniques in aeronautical engineering	Equivalent
MEM23063A	Select and test mechanical engineering materials	MEM23063	Select and organise mechanical engineering material tests	Equivalent
MEM23064A	Select and test mechatronic engineering materials	MEM23064	Select and organise mechatronic engineering material tests	Equivalent
MEM23086A	Apply scientific principles and techniques in avionic engineering situations	MEM23086	Apply scientific principles and techniques in avionic engineering situations	Equivalent
MEM23109A	Apply engineering mechanics principles	MEM23109	Apply engineering mechanics principles	Equivalent
MEM23111A	Select electrical equipment and components for engineering applications	MEM23111	Select electrical equipment and components for engineering applications	Equivalent
MEM23112A	Investigate electrical and electronic controllers in engineering applications	MEM23112	Investigate electrical and electronic controllers in engineering applications	Equivalent
MEM23113A	Evaluate hydrodynamic systems and system components	MEM23113	Evaluate hydrodynamic systems and system components	Equivalent
MEM23114A	Evaluate thermodynamic systems and components	MEM23114	Evaluate thermodynamic systems and components	Equivalent
MEM23115A	Evaluate fluid power systems	MEM23115	Evaluate fluid power systems	Equivalent
MEM23116A	Evaluate programmable logic controller and related control system component applications	MEM23116	Evaluate programmable logic controller and related control system component applications	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM23117A	Evaluate microcontroller applications	MEM23117	Evaluate microcontroller applications	Equivalent
MEM23118A	Apply production and service control techniques	MEM23118	Apply production and service control techniques	Equivalent
MEM23119A	Evaluate continuous improvement processes	MEM23119	Evaluate continuous improvement processes	Equivalent
MEM23120A	Select mechanical machine and equipment components	MEM23120	Select mechanical machine and equipment components	Equivalent
MEM23121A	Analyse loads on frames and mechanisms	MEM23121	Analyse loads on frames and mechanisms	Equivalent
MEM23122A	Evaluate computer integrated manufacturing systems	MEM23122	Evaluate computer integrated manufacturing systems	Equivalent
MEM23123A	Evaluate manufacturing processes	MEM23123	Evaluate manufacturing processes	Equivalent
MEM23124A	Measure and analyse noise and vibration	MEM23124	Measure and analyse noise and vibration	Equivalent
MEM23125A	Evaluate maintenance systems	MEM23125	Evaluate maintenance systems	Equivalent
MEM23126A	Evaluate industrial robotic applications	MEM23126	Evaluate industrial robotic applications	Equivalent
MEM23129A	Evaluate thermal loads for heating, ventilation, air conditioning and refrigeration	MEM23129	Evaluate thermal loads for heating, ventilation, air conditioning and refrigeration	Equivalent
MEM23130A	Coordinate servicing and fault-finding of HVACR control systems	MEM23130	Coordinate servicing and fault-finding of HVACR control systems	Equivalent
MEM23131A	Evaluate rapid prototyping applications	MEM23131	Evaluate rapid prototyping applications	Equivalent
MEM23132A	Evaluate rapid manufacturing processes	MEM23132	Evaluate rapid manufacturing processes	Equivalent
MEM23133A	Evaluate rapid tooling applications	MEM23133	Evaluate rapid tooling applications	Equivalent
MEM23134A	Evaluate jigs and fixtures	MEM23134	Evaluate jigs and fixtures	Equivalent
MEM23135A	Evaluate moulding tools and processes	MEM23135	Evaluate moulding tools and processes	Equivalent
MEM23136A	Evaluate stamping and forging tools	MEM23136	Evaluate stamping and forging tools	Equivalent
MEM23137A	Evaluate rolling tools and processes	MEM23137	Evaluate rolling tools and processes	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM23138A	Evaluate suitability of materials for engineering-related applications	MEM23138	Evaluate suitability of materials for engineering-related applications	Equivalent
MEM23139A	Design a basic single zone duct distribution system	MEM23139	Design a basic single zone duct distribution system	Equivalent
MEM23140A	Determine operational parameters for building HVAC hydronic systems	MEM23140	Determine operational parameters for building HVAC hydronic systems	Equivalent
MEM23141A	Complete a building thermal performance survey	MEM23141	Complete a building thermal performance survey	Equivalent
MEM23142A	Determine psychrometric processes and system performance	MEM23142	Determine psychrometric processes and system performance	Equivalent
MEM23143A	Apply energy management principles	MEM23143	Apply energy management principles	Equivalent
MEM23144A	Contribute to the design of a commercial refrigeration system	MEM23144	Contribute to the design of a commercial refrigeration system	Equivalent
MEM23145A	Apply codes and regulations to air conditioning designs	MEM23145	Apply codes and regulations to air conditioning designs	Equivalent
MEM23146A	Contribute to the design of industrial refrigeration systems	MEM23146	Contribute to the design of industrial refrigeration systems	Equivalent
MEM23147A	Contribute to the design of hydronic systems	MEM23147	Contribute to the design of hydronic systems	Equivalent
MEM23148A	Develop energy management solutions	MEM23148	Develop energy management solutions	Equivalent
MEM23149A	Contribute to the design of commercial and industrial exhaust systems	MEM23149	Contribute to the design of commercial and industrial exhaust systems	Equivalent
MEM23150A	Contribute to the design of heating systems	MEM23150	Contribute to the design of heating systems	Equivalent
MEM23151A	Commission and optimise performance of HVACR systems	MEM23151	Commission and optimise performance of HVACR systems	Equivalent
MEM23152A	Apply principles of refrigeration food storage technology	MEM23152	Apply principles of refrigeration food storage technology	Equivalent
MEM23153A	Contribute to the design of heat exchanger systems	MEM23153	Contribute to the design of heat exchanger systems	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM23154A	Analyse and service HVACR systems	MEM23154	Analyse and service HVACR systems	Equivalent
MEM234001A	Plan and manage engineering-related projects or operations	MEM234001	Plan and manage engineering-related projects or operations	Equivalent
MEM234002A	Integrate engineering technologies	MEM234002	Integrate engineering technologies	Equivalent
MEM234003A	Design machines and ancillary equipment	MEM234003	Design machines and ancillary equipment	Equivalent
MEM234004A	Design for engineering-related noise and vibration mitigation	MEM234004	Design for engineering-related noise and vibration mitigation	Equivalent
MEM234005A	Design hydrodynamic pumping systems	MEM234005	Design hydrodynamic pumping systems	Equivalent
MEM234006A	Evaluate and select thermodynamic systems or subsystems	MEM234006	Evaluate and select thermodynamic systems or subsystems	Equivalent
MEM234007A	Design fluid power systems	MEM234007	Design fluid power systems	Equivalent
MEM234008A	Design plant using computer simulations	MEM234008	Design plant using computer simulations	Equivalent
MEM234009A	Design computer-integrated manufacturing systems	MEM234009	Design computer-integrated manufacturing systems	Equivalent
MEM234010A	Design microcontroller applications	MEM234010	Design microcontroller applications	Equivalent
MEM234011A	Design programmable logic controller applications	MEM234011	Design programmable logic controller applications	Equivalent
MEM234012A	Design integrated maintenance management systems	MEM234012	Design integrated maintenance management systems	Equivalent
MEM234013A	Plan and design engineering-related manufacturing processes	MEM234013	Plan and design engineering-related manufacturing processes	Equivalent
MEM234014A	Design a robotic system	MEM234014	Design a robotic system	Equivalent
MEM234015A	Design hydronic heat exchanger systems	MEM234015	Design hydronic heat exchanger systems	Equivalent
MEM234016A	Design refrigeration systems	MEM234016	Design refrigeration systems	Equivalent
MEM234017A	Design exhaust, ventilation and dust collection systems	MEM234017	Design exhaust, ventilation and dust collection systems	Equivalent
MEM234018A	Design heating, ventilation, air conditioning and refrigeration control systems	MEM234018	Design heating, ventilation, air conditioning and refrigeration control systems	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM234019A	Apply finite element analysis in engineering design	MEM234019	Apply finite element analysis in engineering design	Equivalent
MEM234020A	Coordinate small lot manufacture using rapid manufacture processes	MEM234020	Coordinate small lot manufacture using rapid manufacture processes	Equivalent
MEM234021A	Apply statistics to technology problems	MEM234021	Apply statistics to technology problems	Equivalent
MEM234022A	Apply advanced calculus to technology problems	MEM234022	Apply advanced calculus to technology problems	Equivalent
MEM234023A	Apply differential equations to technology problems	MEM234023	Apply differential equations to technology problems	Equivalent
MEM234024A	Apply advanced mathematics in technology problems	MEM234024	Apply advanced mathematics to technology problems	Equivalent
MEM234025A	Apply numerical methods to technology problems	MEM234025	Apply numerical methods to technology problems	Equivalent
MEM234026A	Develop and coordinate engineering-related contingency plans	MEM234026	Develop and coordinate engineering-related contingency plans	Equivalent
MEM234027A	Plan and manage materials supply for an engineering project or manufacturing operation	MEM234027	Plan and manage materials supply for an engineering project or manufacturing operation	Equivalent
MEM234028A	Produce and manage technical documentation	MEM234028	Produce and manage technical documentation	Equivalent
MEM234029A	Produce and manage technical publications	MEM234029	Produce and manage technical publications	Equivalent
MEM234030A	Provide specialised technical and engineering guidance to other technical employees	MEM234030	Provide specialised technical and engineering guidance to other technical employees	Equivalent
MEM234031A	Manage installation, commissioning or modification of machines and equipment	MEM234031	Manage installation, commissioning or modification of machines and equipment	Equivalent
MEM234032A	Manage fluid power related technologies in an enterprise	MEM234032	Manage fluid power-related technologies in an organisation	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM234033A	Lead engineering-related quality operations in an enterprise	MEM234033	Lead engineering-related quality operations in an organisation	Equivalent
MEM234034A	Manage heating, ventilation, air conditioning and refrigeration systems or projects	MEM234034	Manage heating, ventilation, air conditioning and refrigeration systems or projects	Equivalent
MEM234035A	Maintain and apply technical and engineering skills	MEM234035	Maintain and apply technical and engineering skills	Equivalent
MEM234036A	Apply configuration management procedures in engineering project management	MEM234036	Apply configuration management procedures in engineering project management	Equivalent
MEM234037A	Perform maintenance-related integrated logistic support management activities	MEM234037	Perform maintenance-related integrated logistic support management activities	Equivalent
MEM234038A	Apply systems engineering procedures to engineering design project management	MEM234038	Apply systems engineering procedures to engineering design project management	Equivalent
MEM24001B	Perform basic penetrant testing	MEM24001	Perform basic penetrant testing	Equivalent
MEM24002B	Perform penetrant testing	MEM24002	Perform penetrant testing	Equivalent
MEM24003B	Perform basic magnetic particle testing	MEM24003	Perform basic magnetic particle testing	Equivalent
MEM24004B	Perform magnetic particle testing	MEM24004	Perform magnetic particle testing	Equivalent
MEM24005B	Perform basic eddy current testing	MEM24005	Perform basic eddy current testing	Equivalent
MEM24006B	Perform eddy current testing	MEM24006	Perform eddy current testing	Equivalent
MEM24007B	Perform ultrasonic thickness testing	MEM24007	Perform ultrasonic thickness testing	Equivalent
MEM24008B	Perform ultrasonic testing	MEM24008	Perform ultrasonic testing	Equivalent
MEM24009B	Perform basic radiographic testing	MEM24009	Perform basic radiographic testing	Equivalent
MEM24010B	Perform radiographic testing	MEM24010	Perform radiographic testing	Equivalent
MEM24011B	Establish non-destructive tests	MEM24011	Establish non-destructive tests	Equivalent
MEM24012C	Apply metallurgy principles	MEM24012	Apply metallurgical principles	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM30005A	Calculate force systems within simple beam structures	MEM30005	Calculate force systems within simple beam structures	Equivalent
MEM30006A	Calculate stresses in simple structures	MEM30006	Calculate stresses in simple structures	Equivalent
MEM30007A	Select common engineering materials	MEM30007	Select common engineering materials	Equivalent
MEM30008A	Apply basic economic and ergonomic concepts to evaluate engineering applications	MEM30008	Apply basic economic and ergonomic concepts to evaluate engineering applications	Equivalent
MEM30009A	Contribute to the design of basic mechanical systems	MEM30009	Contribute to the design of basic mechanical systems	Equivalent
MEM30010A	Set up basic hydraulic circuits	MEM30010	Set up basic hydraulic circuits	Equivalent
MEM30011A	Set up basic pneumatic circuits	MEM30011	Set up basic pneumatic circuits	Equivalent
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment	MEM30012	Apply mathematical techniques in a manufacturing engineering or related environment	Equivalent
MEM30013A	Assist in the preparation of a basic workplace layout	MEM30013	Assist in the preparation of a basic workplace layout	Equivalent
MEM30014A	Apply basic just in time systems to the reduction of waste	MEM30014	Apply basic just in time systems to the reduction of waste	Equivalent
MEM30015A	Develop recommendations for basic set up time improvements	MEM30015	Develop recommendations for basic set up time improvements	Equivalent
MEM30016A	Assist in the analysis of a supply chain	MEM30016	Assist in the analysis of a supply chain	Equivalent
MEM30017A	Use basic preventative maintenance techniques and tools	MEM30017	Use basic preventative maintenance techniques and tools	Equivalent
MEM30018A	Undertake basic process planning	MEM30018	Undertake basic process planning	Equivalent
MEM30019A	Use resource planning software systems in manufacturing	MEM30019	Use resource planning software systems in manufacturing	Equivalent
MEM30020A	Develop and manage a plan for a simple manufacturing related project	MEM30020	Develop and manage a plan for a simple manufacturing related project	Equivalent
MEM30021A	Prepare a simple production schedule	MEM30021	Prepare a simple production schedule	Equivalent

	MEM05 Release 11.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MEM30022A	Undertake supervised procurement activities	MEM30022	Undertake supervised procurement activities	Equivalent
MEM30023A	Prepare a simple cost estimate for a manufactured product	MEM30023	Prepare a simple cost estimate for a manufactured product	Equivalent
MEM30024A	Participate in quality assurance techniques	MEM30024	Participate in quality assurance techniques	Equivalent
MEM30025A	Analyse a simple electrical system circuit	MEM30025	Analyse a simple electrical system circuit	Equivalent
MEM30026A	Select and test components for simple electronic switching and timing circuits	MEM30026	Select and test components for simple electronic switching and timing circuits	Equivalent
MEM30027A	Prepare basic programs for programmable logic controllers	MEM30027	Prepare basic programs for programmable logic controllers	Equivalent
MEM30028A	Assist in sales of technical products/systems	MEM30028	Assist in sales of technical products	Equivalent
MEM30029A	Use workshop equipment and processes to complete an engineering project	MEM30029	Use workshop equipment and processes to complete an engineering project	Equivalent
MEM30031A	Operate computer-aided design (CAD) system to produce basic drawing elements	MEM30031	Operate computer-aided design (CAD) system to produce basic drawing elements	Equivalent
MEM30032A	Produce basic engineering drawings	MEM30032	Produce basic engineering drawings	Equivalent
MEM30033A	Use computer-aided design (CAD) to create and display 3-D models	MEM30033	Use computer-aided design (CAD) to create and display 3D models	Equivalent
MEMPE001A	Use engineering workshop machines	MEMPE001	Use engineering workshop machines	Equivalent
MEMPE002A	Use electric welding machines	MEMPE002	Use electric welding machines	Equivalent
MEMPE003A	Use oxy-acetylene and soldering equipment	MEMPE003	Use oxy-acetylene and soldering equipment	Equivalent
MEMPE004A	Use fabrication equipment	MEMPE004	Use fabrication equipment	Equivalent
MEMPE005A	Develop a career plan for the engineering and manufacturing industry	MEMPE005	Develop a career plan for the engineering and manufacturing industries	Equivalent
MEMPE006A	Undertake a basic engineering project	MEMPE006	Undertake a basic engineering project	Equivalent
MEMPE007A	Pull apart and re-assemble engineering mechanisms	MEMPE007	Pull apart and re-assemble engineering mechanisms	Equivalent

MEM units of competency – mapping to MEM Release 3.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM04010	Develop and manufacture wood patterns (<i>Release 2.0</i>)			Unit not carried over to Release 3. To be superseded by MEM04031, MEM04032, MEM04033, MEM04034 and MEM04035.
MEM04011	Produce polymer patterns (<i>Release 2.0</i>)	MEM04038	Produce polymer patterns	Equivalent
MEM04012	Assemble plated patterns (<i>Release 2.0</i>)	MEM04039	Assemble plated patterns	Equivalent
MEM04013	Develop and manufacture polystyrene patterns (<i>Release 2.0</i>)	MEM04040	Develop and manufacture polystyrene patterns	Equivalent
MEM04014	Develop and manufacture production patterns (<i>Release 2.0</i>)	MEM04041	Develop and manufacture production patterns	Equivalent
MEM04015	Develop and manufacture vacuum forming moulds and associated equipment (<i>Release 2.0</i>)	MEM04042	Develop and manufacture vacuum forming moulds and associated equipment	Equivalent
MEM04016	Develop and manufacture precision models (<i>Release 2.0</i>)	MEM04043	Develop and manufacture precision models	Equivalent

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM04017	Develop and manufacture gear, conveyor screw and propeller patterns (Release 2.0)			Unit not carried over to Release 3. To be superseded by MEM04026, MEM04027, MEM04028, MEM04029, MEM04030 and MEM04037.
		MEM04026	Develop and manufacture spur gear patterns	Supersedes and not equivalent to MEM04017
		MEM04027	Develop and manufacture bevel gear patterns	Supersedes and not equivalent to MEM04017
		MEM04028	Develop and manufacture chain gear and sprocket patterns	Supersedes and not equivalent to MEM04017
		MEM04029	Develop and manufacture conveyor screw patterns	Supersedes and not equivalent to MEM04017
		MEM04030	Develop and manufacture propeller patterns	Supersedes and not equivalent to MEM04017
		MEM04031	Develop and manufacture flat back wood patterns	Supersedes and not equivalent to MEM04010
		MEM04032	Develop and manufacture irregular joint wood patterns	Supersedes and not equivalent to MEM04010
		MEM04033	Develop and manufacture turned wood patterns	Supersedes and not equivalent to MEM04010
		MEM04034	Develop and manufacture wooden wheel patterns	Supersedes and not equivalent to MEM04010
		MEM04035	Develop and manufacture pipe patterns	Supersedes and not equivalent to MEM04010
		MEM04036	Maintain patterns	New unit
		MEM04037	Develop and manufacture split patterns	Supersedes and not equivalent to MEM04017

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
		MEM05059	Perform advanced welding using submerged arc welding	New unit
		MEM05060	Perform welds to code standards using submerged arc welding process	New unit
		MEM05061	Apply basic metallurgy principles to welding applications	New unit
		MEM05062	Apply welding and welding related codes and standards	New unit
		MEM05063	Write and proof robotic welding system programs	New unit
		MEM05064	Establish and maintain a weld record management system	New unit
		MEM05065	Maintain weld records	New unit
		MEM05066	Develop and maintain welding procedures	New unit
		MEM05067	Establish and maintain a welding procedure management system	New unit
		MEM05068	Apply welding procedure specifications	New unit
		MEM05069	Undertake advanced weld repair and maintenance	New unit
		MEM05070	Write and proof programs for NC/CNC thermal cutting machines	New unit

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM05008	Perform advanced manual thermal cutting, gouging and shaping	MEM05071	Perform advanced manual thermal cutting, gouging and shaping	Non-equivalent
MEM05016	Perform advanced welding using manual metal arc welding process	MEM05072	Perform advanced welding using manual metal arc welding process	Non-equivalent
MEM05018	Perform advanced welding using gas metal arc welding process.	MEM05073	Perform advanced welding using gas metal arc welding process	Non-equivalent
MEM05020	Perform advanced welding using gas tungsten arc welding process	MEM05074	Perform advanced welding using gas tungsten arc welding process	Non-equivalent
MEM05022	Perform advanced welding using oxy acetylene welding process	MEM05075	Perform advanced welding using oxy acetylene welding process	Non-equivalent
MEM05024	Perform welding supervision	MEM05076	Perform welding supervision	Non-equivalent
MEM05025	Perform welding/fabrication inspection	MEM05077	Perform welding inspection	Non-equivalent
MEM05026	Apply welding principles	MEM05078	Apply welding principles	Non-equivalent
MEM05042	Perform welds to code standards using flux core arc welding process	MEM05079	Perform welds to code standards using flux core arc welding process	Non-equivalent
MEM05043	Perform welds to code standards using gas metal arc welding process	MEM05080	Perform welds to code standards using gas metal arc welding process	Non-equivalent
MEM05044	Perform welds to code standards using gas tungsten arc welding process	MEM05081	Perform welds to code standards using gas tungsten arc welding process	Non-equivalent
MEM05045	Perform pipe welds to code standards using manual metal arc welding process	MEM05082	Perform pipe welds to code standards using manual metal arc welding process	Non-equivalent

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM05046	Perform welds to code standards using manual metal arc welding process	MEM05083	Perform welds to code standards using manual metal arc welding process	Non-equivalent
MEM05048	Perform advanced welding using flux core arc welding process	MEM05084	Perform advanced welding using flux core arc welding process	Non-equivalent
MEM05051	Select welding processes	MEM05085	Select welding processes	Non-equivalent
MEM05053	Set and edit computer controlled thermal cutting machines	MEM05086	Set and edit computer controlled thermal cutting machines	Non-equivalent
MEM05054	Write basic NC/CNC programs for thermal cutting machines	MEM05087	Write basic NC/CNC programs for thermal cutting machines	Non-equivalent
MEM05058	Perform welds to code standards using oxy fuel gas welding process	MEM05088	Perform welds to code standards using oxy fuel gas welding process	Non-equivalent
MEM05011	Assemble fabricated components	MEM05089	Assemble fabricated components	Equivalent
MEM05015	Weld using manual metal arc welding process	MEM05090	Weld using manual metal arc welding process	Equivalent
MEM05017	Weld using gas metal arc welding process	MEM05091	Weld using gas metal arc welding process	Equivalent
MEM05019	Weld using gas tungsten arc welding process	MEM05092	Weld using gas tungsten arc welding process	Equivalent
MEM05023	Weld using submerged arc welding process	MEM05093	Weld using submerged arc welding process	Equivalent
MEM05036	Repair, replace and/or modify fabrications	MEM05094	Repair, replace and/or modify fabrications	Equivalent
MEM05041	Weld using flame powder spraying	MEM05095	Weld using flame powder spraying	Equivalent
MEM05047	Weld using flux core arc welding process	MEM05096	Weld using flux core arc welding process	Equivalent

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM05055	Weld using oxy fuel gas welding process	MEM05097	Weld using oxy fuel gas welding process	Equivalent
MEM10001	Erect structures	MEM10012	Erect structures	Equivalent
MEM13002	Undertake work health and safety activities in the workplace (<i>Release 1.0</i>)	MEM13019	Undertake work health and safety activities in the workplace	Equivalent
MEM13010	Supervise work health and safety in an industrial work environment (<i>Release 1.0</i>)	MEM13020	Supervise work health and safety in an industrial work environment	Equivalent
MEM13013	Work safely with ionizing radiation (<i>Release 1.0</i>)	MEM13018	Work safely with ionizing radiation	Equivalent
MEM20001	Produce keys (<i>Release 2.0</i>)			Unit not carried over to Release 3.0. To be superseded by MEM20015, MEM20016 and MEM20017.
MEM20002	Assemble and test lock mechanisms (<i>Release 2.0</i>)	MEM20023	Assemble and test lock mechanisms	Equivalent
MEM20003	Install and upgrade locks and hardware (<i>Release 2.0</i>)	MEM20024	Install and upgrade locks and hardware	Equivalent
MEM20004	Gain entry (<i>Release 2.0</i>)	MEM20025	Gain entry	Equivalent
MEM20005	Install and maintain door control devices/systems (<i>Release 2.0</i>)	MEM20026	Install and maintain door control devices and systems	Equivalent
MEM20006	Maintain and service mechanical locking devices (<i>Release 2.0</i>)	MEM20027	Maintain and service mechanical locking devices	Equivalent
MEM20007	Plan and prepare a masterkey system (<i>Release 2.0</i>)	MEM20028	Plan and prepare a master key system	Equivalent
MEM20008	Develop and implement a masterkey system (<i>Release 2.0</i>)	MEM20029	Develop and implement a master key system	Equivalent
MEM20009	Gain entry and reinstate fire and security containers (<i>Release 2.0</i>)	MEM20030	Gain entry and reinstate fire and security containers	Equivalent

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MEM20010	Gain entry and reinstate automotive locking systems (Release 2.0)	MEM20031	Gain entry and reinstate automotive locking systems	Equivalent
MEM20011	Service and repair fire and security containers (Release 2.0)	MEM20032	Service and repair fire and security containers	Equivalent
MEM20012	Service and repair mechanical automotive locking systems (Release 2.0)	MEM20033	Service and repair mechanical automotive locking systems	Equivalent
MEM20013	Service automotive transponder systems (Release 2.0)			Unit not carried over to Release 3.0. To be superseded by MEM20018, MEM20019 and MEM20020.
MEM20014	Perform a site security survey (Release 2.0)	MEM20035	Perform a site security survey	Equivalent
		MEM20015	Produce hand cut keys	Supersedes but is not equivalent to MEM20001 Produce keys
		MEM20016	Produce keys by cutting to code	Supersedes but is not equivalent to MEM20001 Produce keys
		MEM20017	Produce keys by duplication	Supersedes but is not equivalent to MEM20001 Produce keys
		MEM20018	Identify and program transponder keys	Supersedes but is not equivalent to MEM20013 Service automotive transponder systems
		MEM20019	Service automotive transponder systems using diagnostic equipment	Supersedes but is not equivalent to MEM20013 Service automotive transponder systems
		MEM20020	Use EEPROM programmers to service automotive transponder systems	Supersedes but is not equivalent to MEM20013 Service automotive transponder systems
		MEM20021	Perform a building security inspection	New unit

MEM Release 2.0-2.1		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
CPPSEC3049A	Modify and repair security equipment and systems	MEM20022	Modify and repair security equipment and systems	New Unit

MSA07 units of competency – mapping to MEM Release 3.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

MSA07 Release 8.4		MEM Release 3.0		
Code	Title	Code	Title	Comment / Equivalence
MSATCM301A	Test the mechanical properties of materials	MEM48001	Test the mechanical properties of materials	New format. Equivalent
MSATCM302A	Monitor ferrous melting and casting processes	MEM48002	Monitor ferrous melting and casting processes	New format. Equivalent
MSATCM303A	Monitor non-ferrous melting and casting processes	MEM48003	Monitor nonferrous melting and casting processes	New format. Equivalent
MSATCM304A	Interpret basic binary phase diagrams	MEM48004	Interpret basic binary phase diagrams	New format. Equivalent
MSATCM305A	Demonstrate basic knowledge of casting operations	MEM48005	Apply basic knowledge of casting operations	New format. Equivalent
MSATCM401A	Prepare and examine metallographic samples	MEM48006	Prepare and examine metallographic samples	New format. Equivalent
MSATCM402A	Monitor and test sands, cores and moulds	MEM48007	Monitor and test sands, cores and moulds	New format. Equivalent
MSATCM403A	Evaluate mould design and gating	MEM48008	Evaluate mould design and gating	New format. Equivalent
MSATCM404A	Undertake and interpret results of chemical analysis on metal samples	MEM48009	Undertake and interpret results of chemical analysis on metal samples	New format. Equivalent
MSATCM405A	Determine and supervise heat treatment of metal	MEM48010	Determine and supervise heat treatment of metal	New format. Equivalent
MSATCM406A	Apply basic chemical principles to metallurgy	MEM48011	Apply basic chemical principles to metallurgy	New format. Equivalent
MSATCM501A	Calculate and predict chemical outcomes in metallurgical situations	MEM48012	Calculate and predict chemical outcomes in metallurgical situations	New format. Equivalent

	MSA07 Release 8.4		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MSATCM502A	Identify and describe equipment for mineral and chemical processing plants	MEM48013	Identify and select equipment for mineral and chemical processing plants	New format. Equivalent
MSATCM503A	Recommend a refractory for an application	MEM48014	Recommend a refractory for an application	New format. Equivalent
MSATCM504A	Select metal forming process	MEM48015	Select metal forming process	New format. Equivalent
MSATCM505A	Select metal joining process	MEM48016	Select metal joining process	New format. Equivalent
MSATCM506A	Monitor blast furnace operations	MEM48017	Monitor blast furnace operations	New format. Equivalent
MSATCM507A	Monitor primary steelmaking process	MEM48018	Monitor primary steel making process	New format. Equivalent
MSATCM508A	Monitor secondary steelmaking operations	MEM48019	Monitor secondary steel making operations	New format. Equivalent
MSATCM509A	Recommend ferrous and non ferrous metals or alloys for an application	MEM48020	Recommend ferrous and nonferrous metals or alloys for an application	New format. Equivalent
MSATCM510A	Apply metallurgical principles and techniques in welding and other thermal processes	MEM48021	Apply metallurgical principles and techniques in welding and other thermal processes	New format. Equivalent
MSATCM511A	Apply metallurgy principles and practice to determine metal forming and shaping processes	MEM48022	Apply metallurgical principles and practice to determine metal forming and shaping processes	New format. Equivalent
MSATCM512A	Apply metallurgy principles and practice to optimise furnace operation	MEM48023	Apply metallurgical principles and practice to optimise furnace operation	New format. Equivalent
MSATCM513A	Plan and complete metallurgical projects	MEM48024	Plan and complete metallurgical projects	New format. Equivalent
MSATCM514A	Select surface treatment methods for metallic components or products	MEM48025	Select surface treatment methods for metallic components or products	New format. Equivalent
MSATCM515A	Analyse metallurgical failures of components and recommend preventative measures	MEM48026	Analyse metallurgical failures of components and recommend preventative measures	New format. Equivalent
MSATCM516A	Select non-metallic materials for engineering applications	MEM48027	Select non-metallic materials for engineering applications	New format. Equivalent
MSATCM517A	Determine corrosion prevention strategies for metal and alloys	MEM48028	Determine corrosion prevention strategies for metal and alloys	New format. Equivalent
MSATCM518A	Interpret complex binary phase diagrams	MEM48029	Interpret and produce complex binary phase diagrams	New format. Equivalent

	MSA07 Release 8.4		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
MSATCS301A	Interpret architectural and engineering design specifications for structural steel detailing	MEM09223	Interpret design specifications for structural steel detailing	Equivalent
MSATCS302A	Detail bolts and welds for structural steelwork connections	MEM09224	Detail bolts and welds for structural steelwork connections	Equivalent
MSATCS501A	Detail standardised structural connections	MEM09225	Detail standardised structural connections	Equivalent
MSATCS502A	Detail structural steel members	MEM09226	Detail structural steel members	Equivalent
MSATCS503A	Incorporate structural steel detailing into fabrication and construction project management	MEM09227	Establish structural steel detailing project arrangements	Equivalent
MSATCS504A	Detail ancillary steelwork	MEM09228	Detail ancillary steelwork	Equivalent
		MEM09229	Read and interpret technical engineering drawings	New unit

LMT07 units of competency – mapping to MEM Release 3.0 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

	LMT07 Release 4.1		MEM Release 3.0	
Code	Title	Code	Title	Comment / Equivalence
LMTCG2001A	Identify cotton characteristics			Deleted
LMTCG2002A	Gin cotton			Deleted
LMTCG2003A	Control bale or mote press operations			Deleted
LMTCG3001A	Identify factors that impact on cotton quality			Deleted
LMTCG3002A	Perform advanced operational maintenance of cotton ginning machines and equipment			Deleted
LMTCG3003A	Assist in overhauling or repairing cotton ginning fluid power equipment			Deleted

MEM05 units of competency – mapping to MEM Release 2.1 units of competency

NOTE: Those units of competency that are **NEW**, have been **SUPERSEDED** or deemed **NOT EQUIVALENT**, have been highlighted in blue.

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM03001B	Perform manual production assembly	MEM03001	Perform manual production assembly	Equivalent
MEM03002B	Perform precision assembly	MEM03002	Perform precision assembly	Equivalent
MEM03003B	Perform sheet and plate assembly	MEM03003	Perform sheet and plate assembly	Equivalent
MEM03004B	Perform electronic/electrical assembly (production)	MEM03004	Perform electronic/electrical assembly (production)	Equivalent
MEM03005B	Rework and repair (electrical/electronic production)	MEM03005	Rework and repair (electrical/electronic production)	Equivalent
MEM03006B	Set assembly stations	MEM03006	Set assembly stations	Equivalent
MEM04001B	Operate melting furnaces	MEM04001	Operate melting furnaces	Equivalent
MEM04002B	Perform gravity die casting	MEM04002	Perform gravity die casting	Equivalent
MEM04003B	Operate pressure die casting machine	MEM04003	Operate pressure die casting machine	Equivalent
MEM04004B	Prepare and mix sand for metal moulding	MEM04004	Prepare and mix sand for metal moulding	Equivalent
MEM04005C	Produce moulds and cores by hand (jobbing)			Superseded by MEM04024 and MEM04025
MEM04006B	Operate sand moulding and core making machines	MEM04006	Operate sand moulding and core making machines	Equivalent
MEM04007B	Pour molten metal	MEM04007	Pour molten metal	Equivalent
MEM04008B	Fettle and trim metal castings/forgings	MEM04008	Fettle and trim metal castings/forgings	Equivalent
MEM04010B	Develop and manufacture wood patterns	MEM04010	Develop and manufacture wood patterns (Release 2)	Equivalent
MEM04011B	Produce polymer patterns	MEM04011	Produce polymer patterns (Release 2)	Equivalent
MEM04012B	Assemble plated patterns	MEM04012	Assemble plated patterns (Release 2)	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM04013B	Develop and manufacture polystyrene patterns	MEM04013	Develop and manufacture polystyrene patterns (Release 2)	Equivalent
MEM04014B	Develop and manufacture production patterns	MEM04014	Develop and manufacture production patterns (Release 2)	Equivalent
MEM04015B	Develop and manufacture vacuum forming moulds and associated equipment	MEM04015	Develop and manufacture vacuum forming moulds and associated equipment (Release 2)	Equivalent
MEM04016C	Develop and manufacture precision models	MEM04016	Develop and manufacture precision models (Release 2)	Equivalent
MEM04017B	Develop and manufacture gear, conveyor screw and propeller patterns	MEM04017	Develop and manufacture gear, conveyor screw and propeller patterns (Release 2)	Equivalent
MEM04018B	Perform general woodworking machine operations	MEM04018	Perform general woodworking machine operations	Equivalent
MEM04019B	Perform refractory installation and repair	MEM04019	Perform refractory installation and repair	Equivalent
MEM04020A	Supervise individual ferrous melting and casting operation	MEM04020	Supervise individual ferrous melting and casting operation (Release 2)	Equivalent
MEM04021A	Supervise individual non-ferrous melting and casting operation	MEM04021	Supervise individual non-ferrous melting and casting operation (Release 2)	Equivalent
MEM04022A	Examine appropriateness of methoding for mould design	MEM04022	Examine appropriateness of methoding for mould design (Release 2)	Equivalent
MEM04023A	Undertake prescribed tests on foundry related materials	MEM04023	Undertake prescribed tests on foundry-related materials	Equivalent
		MEM04024	Produce moulds and cores by hand (Release 2)	New unit. Supersedes MEM04005C – not equivalent
		MEM04025	Produce moulds and cores by hand (advanced) (Release 2)	New unit. Supersedes MEM04005C – not equivalent.
MEM05001B	Perform manual soldering/desoldering – electrical/electronic components	MEM05001	Perform manual soldering/desoldering – electrical/electronic components	Equivalent
MEM05002B	Perform high reliability soldering and desoldering	MEM05002	Perform high reliability soldering and desoldering	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM05003B	Perform soft soldering	MEM05003	Perform soft soldering	Equivalent
MEM05004C	Perform routine oxy acetylene welding	MEM05004	Perform routine oxy fuel gas welding	New title. Equivalent
MEM05005B	Carry out mechanical cutting	MEM05005	Carry out mechanical cutting	Equivalent
MEM05006C	Perform brazing and or silver soldering	MEM05006	Perform brazing and/or silver soldering	Equivalent
MEM05007C	Perform manual heating and thermal cutting	MEM05007	Perform manual heating and thermal cutting	Equivalent
MEM05008C	Perform advanced manual thermal cutting, gouging and shaping	MEM05008	Perform advanced manual thermal cutting, gouging and shaping	Equivalent
MEM05009C	Perform automated thermal cutting	MEM05009	Perform automated thermal cutting	Equivalent
MEM05010C	Apply fabrication, forming and shaping techniques	MEM05010	Apply fabrication, forming and shaping techniques (Release 2)	Equivalent
MEM05011D	Assemble fabricated components	MEM05011	Assemble fabricated components (Release 2)	Equivalent
MEM05012C	Perform routine manual metal arc welding	MEM05012	Perform routine manual metal arc welding	Equivalent
MEM05013C	Perform manual production welding	MEM05013	Perform manual production welding	Equivalent
MEM05014C	Monitor quality of production welding/fabrications	MEM05014	Monitor quality of production welding/fabrications (Release 2)	Equivalent
MEM05015D	Weld using manual metal arc welding process	MEM05015	Weld using manual metal arc welding process (Release 2)	Equivalent
MEM05016C	Perform advanced welding using manual metal arc welding process	MEM05016	Perform advanced welding using manual metal arc welding process (Release 2)	Equivalent
MEM05017D	Weld using gas metal arc welding process	MEM05017	Weld using gas metal arc welding process (Release 2)	Equivalent
MEM05018C	Perform advanced welding using gas metal arc welding process	MEM05018	Perform advanced welding using gas metal arc welding process (Release 2)	Equivalent
MEM05019D	Weld using gas tungsten arc welding process	MEM05019	Weld using gas tungsten arc welding process (Release 2)	Equivalent
MEM05020C	Perform advanced welding using gas tungsten arc welding process	MEM05020	Perform advanced welding using gas tungsten arc welding process (Release 2)	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM05022C	Perform advanced welding using oxy acetylene welding process	MEM05022	Perform advanced welding using oxy acetylene welding process (Release 2)	Equivalent
MEM05023C	Weld using submerged arc welding process	MEM05023	Weld using submerged arc welding process	Equivalent
MEM05024B	Perform welding supervision	MEM05024	Perform welding supervision (Release 2)	Equivalent
MEM05025C	Perform welding/fabrication inspection	MEM05025	Perform welding/fabrication inspection (Release 2)	Equivalent
MEM05026C	Apply welding principles	MEM05026	Apply welding principles (Release 2)	Equivalent
MEM05027A	Perform aluminothermic welding	MEM05027	Perform aluminothermic welding	Equivalent
MEM05036C	Repair/replace/modify fabrications	MEM05036	Repair, replace and/or modify fabrications (Release 2)	Equivalent
MEM05037C	Perform geometric development	MEM05037	Perform geometric development (Release 2)	Equivalent
MEM05038B	Perform advanced geometric development – cylindrical/rectangular	MEM05038	Perform advanced geometric development – cylindrical/rectangular (Release 2)	Equivalent
MEM05039B	Perform advanced geometric development – conical	MEM05039	Perform advanced geometric development – conical (Release 2)	Equivalent
MEM05040B	Perform advanced geometric development – transitions	MEM05040	Perform advanced geometric development – transitions (Release 2)	Equivalent
MEM05041B	Weld using powder flame spraying	MEM05041	Weld using flame powder spraying	Equivalent
MEM05042B	Perform welds to code standards using flux core arc welding process	MEM05042	Perform welds to code standards using flux core arc welding process (Release 2)	Equivalent
MEM05043B	Perform welds to code standards using gas metal arc welding process	MEM05043	Perform welds to code standards using gas metal arc welding process (Release 2)	Equivalent
MEM05044B	Perform welds to code standards using gas tungsten arc welding process	MEM05044	Perform welds to code standards using gas tungsten arc welding process (Release 2)	Equivalent
MEM05045B	Perform pipe welds to code standards using manual metal arc welding process	MEM05045	Perform pipe welds to code standards using manual metal arc welding process (Release 2)	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM05046B	Perform welds to code standards using manual metal arc welding process	MEM05046	Perform welds to code standards using manual metal arc welding process (Release 2)	Equivalent
MEM05047B	Weld using flux core arc welding process	MEM05047	Weld using flux core arc welding process	Equivalent
MEM05048B	Perform advanced welding using flux core arc welding process	MEM05048	Perform advanced welding using flux core arc welding process	Equivalent
MEM05049B	Perform routine gas tungsten arc welding	MEM05049	Perform routine gas tungsten arc welding	Equivalent
MEM05050B	Perform routine gas metal arc welding	MEM05050	Perform routine gas metal arc welding	Equivalent
MEM05051A	Select welding processes	MEM05051	Select welding processes (Release 2)	Equivalent
MEM05052A	Apply safe welding practices	MEM05052	Apply safe welding practices (Release 2)	Equivalent
MEM05053A	Set and edit computer controlled thermal cutting machines	MEM05053	Set and edit computer controlled thermal cutting machines (Release 2)	Equivalent
MEM05054A	Write basic NC/CNC programs for thermal cutting machines	MEM05054	Write basic NC/CNC programs for thermal cutting machines (Release 2)	Equivalent
		MEM05055	Weld using oxy fuel gas welding process (Release 2)	New Fabrication Unit
		MEM05056	Perform routine flux core arc welding	New Fabrication Unit
		MEM05057	Perform routine submerged arc welding	New Fabrication Unit
		MEM05058	Perform welds to code standards using oxy fuel gas welding process (Release 2)	New Fabrication Unit
MEM06001B	Perform hand forging	MEM06001	Perform hand forging	Equivalent
MEM06002B	Perform hammer forging	MEM06002	Perform hammer forging	Equivalent
MEM06003C	Carry out heat treatment	MEM06003	Carry out heat treatment	Equivalent
MEM06004B	Select heat treatment processes and test finished product	MEM06004	Select heat treatment processes and test finished product	Equivalent
MEM06005B	Perform drop and upset forging	MEM06005	Perform drop and upset forging	Equivalent
MEM06006C	Repair springs	MEM06006	Repair springs	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM06007B	Perform basic incidental heat/quenching, tempering and annealing	MEM06007	Perform basic incidental heat/quenching, tempering and annealing	Equivalent
MEM06008A	Hammer forge complex shapes	MEM06008	Hammer forge complex shapes	Equivalent
MEM06009A	Hand forge complex shapes	MEM06009	Hand forge complex shapes	Equivalent
MEM07001B	Perform operational maintenance of machines/equipment	MEM07001	Perform operational maintenance of machines/equipment	Equivalent
MEM07002B	Perform precision shaping/planning/slotting operations	MEM07002	Perform precision shaping/243equirem/slotting operations (Release 2)	Equivalent
MEM07003B	Perform machine setting (routine)	MEM07003	Perform routine machine setting	Equivalent
MEM07004B	Perform machine setting (complex)	MEM07004	Perform complex machine setting (Release 2)	Equivalent
MEM07005C	Perform general machining	MEM07005	Perform general machining (Release 2)	Equivalent
MEM07006C	Perform lathe operations	MEM07006	Perform lathe operations (Release 2)	Equivalent
MEM07007C	Perform milling operations	MEM07007	Perform milling operations (Release 2)	Equivalent
MEM07008D	Perform grinding operations	MEM07008	Perform grinding operations (Release 2)	Equivalent
MEM07009B	Perform precision jig boring operations	MEM07009	Perform precision jig boring operations (Release 2)	Equivalent
MEM07010B	Perform tool and cutter grinding operations	MEM07010	Perform tool and cutter grinding operations (Release 2)	Equivalent
MEM07011B	Perform complex milling operations	MEM07011	Perform complex milling operations (Release 2)	Equivalent
MEM07012B	Perform complex grinding operations	MEM07012	Perform complex grinding operations (Release 2)	Equivalent
MEM07013B	Perform machining operations using horizontal and/or vertical boring machines	MEM07013	Perform machining operations using horizontal and vertical boring machines (Release 2)	Equivalent
MEM07014B	Perform electro-discharge (EDM) machining operations	MEM07014	Perform electro-discharge machining (EDM) operations (Release 2)	Equivalent
MEM07015B	Set computer controlled machines/processes	MEM07015	Set computer controlled machines and processes (Release 2)	Equivalent
MEM07016C	Set and edit computer controlled machines/processes	MEM07016	Set and edit computer controlled machines and processes (Release 2)	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM07018C	Write basic NC/CNC programs	MEM07018	Write basic NC and CNC programs (Release 2)	Equivalent
MEM07019C	Program NC/CNC machining centre	MEM07019	Program NC and CNC machining centre (Release 2)	Equivalent
MEM07020C	Program multiple spindle and/or multiple axis NC/CNC machining centre	MEM07020	Program multiple spindle and multiple axis NC and CNC machining centre (Release 2)	Equivalent
MEM07021B	Perform complex lathe operations	MEM07021	Perform complex lathe operations (Release 2)	Equivalent
MEM07022C	Program CNC wire cut machines	MEM07022	Program CNC wire cut machines (Release 2)	Equivalent
MEM07023C	Program and set up CNC manufacturing cell	MEM07023	Program and set up CNC manufacturing cell (Release 2)	Equivalent
MEM07024B	Operate and monitor machine/process	MEM07024	Operate and monitor machine and process	Equivalent
MEM07025B	Perform advanced machine/process operation	MEM07025	Perform advanced machine and process operation	Equivalent
MEM07026B	Perform advanced plastic processing	MEM07026	Perform advanced plastic processing	Equivalent
MEM07027B	Perform advanced press operations	MEM07027	Perform advanced press operations	Equivalent
MEM07028B	Operate computer controlled machines/processes	MEM07028	Operate computer controlled machines and processes	Equivalent
MEM07029B	Perform routine sharpening/maintenance of production tools and cutters	MEM07029	Perform routine sharpening and maintenance of production tools and cutters	Equivalent
MEM07030C	Perform metal spinning lathe operations (basic)	MEM07030	Perform basic metal spinning lathe operations	Equivalent
MEM07031C	Perform metal spinning lathe operations (complex)	MEM07031	Perform complex metal spinning lathe operations	Equivalent
MEM07032B	Use workshop machines for basic operations	MEM07032	Use workshop machines for basic operations	Equivalent
MEM07033B	Operate and monitor basic boiler	MEM07033	Operate and monitor basic boiler	Equivalent
MEM07039A	Write programs for industrial robots	MEM07039	Write programs for industrial robots	Equivalent
MEM07040A	Set multistage integrated processes	MEM07040	Set multistage integrated processes	Equivalent
MEM07041A	Perform production machining	MEM07041	Perform production machining	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM07042A	Undertake corrections and basic maintenance to aluminium extrusion dies and die support systems	MEM07042	Undertake corrections and basic maintenance to aluminium extrusion dies and die support systems	Equivalent
MEM07043A	Identify causes of faulty aluminium extrusions	MEM07043	Identify causes of faulty aluminium extrusions	Equivalent
MEM07044A	Test a new aluminium extrusion die	MEM07044	Test a new aluminium extrusion die	Equivalent
MEM08001B	Perform wire, jig and barrel load/unload work	MEM08001	Perform wire, jig and barrel load/unload work	Equivalent
MEM08002C	Pre-treat work for subsequent surface coating	MEM08002	Pre-treat work for subsequent surface coating	Equivalent
MEM08003C	Perform electroplating operations	MEM08003	Perform electroplating operations	Equivalent
MEM08004B	Finish work using wet, dry and vapour deposition methods	MEM08004	Finish work using wet, dry and vapour deposition methods	Equivalent
MEM08005B	Prepare and produce specialised coatings	MEM08005	Prepare and produce specialised coatings	Equivalent
MEM08006B	Produce clear and/or coloured and/or sealed anodised films on aluminium	MEM08006	Produce clear and/or coloured and/or sealed anodised films on aluminium	Equivalent
MEM08007B	Control surface finish production and finished product quality	MEM08007	Control surface finish production and finished product quality	Equivalent
MEM08008B	Operate and control surface finishing waste treatment process	MEM08008	Operate and control surface finishing waste treatment process	Equivalent
MEM08009C	Make up solutions	MEM08009	Make up solutions	Equivalent
MEM08010B	Manually finish/polish materials	MEM08010	Manually finish/polish materials	Equivalent
MEM08011B	Prepare surfaces using solvents and/or mechanical means	MEM08011	Prepare surfaces using solvents and/or mechanical means	Equivalent
MEM08012B	Prepare surfaces by abrasive blasting (basic)	MEM08012	Prepare surfaces by abrasive blasting (basic)	Equivalent
MEM08013B	Prepare surfaces by abrasive blasting (advanced)	MEM08013	Prepare surfaces by abrasive blasting (advanced)	Equivalent
MEM08014B	Apply protective coatings (basic)	MEM08014	Apply protective coatings (basic)	Equivalent
MEM08015B	Apply protective coatings (advanced)	MEM08015	Apply protective coatings (advanced)	Equivalent
MEM08016B	Control blast coating by-products, materials and emissions	MEM08016	Control blast coating by-products, materials and emissions	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM08018B	Electroplate engineering coatings	MEM08018	Electroplate engineering coatings	Equivalent
MEM08019B	Electroplate protective finishes	MEM08019	Electroplate protective finishes	Equivalent
MEM08020B	Electroplate decorative finishes	MEM08020	Electroplate decorative finishes	Equivalent
MEM09002B	Interpret technical drawing	MEM09002	Interpret technical drawing	Equivalent
MEM09003B	Prepare basic engineering drawing	MEM09003	Prepare basic engineering drawing	Equivalent
MEM09004B	Perform electrical/electronic detail drafting	MEM09004	Perform electrical or electronic detail drafting	Equivalent
MEM09005B	Perform basic engineering detail drafting	MEM09005	Perform basic engineering detail drafting	Equivalent
MEM09006B	Perform advanced engineering detail drafting	MEM09006	Perform advanced engineering detail drafting	Equivalent
MEM09007B	Perform advanced mechanical detail drafting	MEM09007	Perform advanced mechanical detail drafting	Equivalent
MEM09008B	Perform advanced structural detail drafting	MEM09008	Perform advanced structural detail drafting	Equivalent
MEM09009C	Create 2D drawings using computer aided design system	MEM09009	Create 2-D drawings using computer-aided design system	Equivalent
MEM09010C	Create 3D models using computer aided design system	MEM09010	Create 3-D models using computer-aided design system	Equivalent
MEM09011B	Apply basic engineering design concepts	MEM09011	Apply basic engineering design concepts	Equivalent
MEM09021B	Interpret and produce curved 3-dimensional shapes	MEM09021	Interpret and produce drawings of curved 3-D shapes	Equivalent
MEM09022A	Create 2D code files using computer aided manufacturing system	MEM09022	Create 2-D code files using computer-aided manufacturing system	Equivalent
MEM09023A	Create 3D code files using computer aided manufacturing system	MEM09023	Create 3-D code files using computer-aided manufacturing system	Equivalent
MEM10001C	Erect structures	MEM10001	Erect structures (Release 2)	Equivalent
MEM10002B	Terminate and connect electrical wiring	MEM10002	Terminate and connect electrical wiring =	Equivalent
MEM10003B	Install and test electrical wiring and circuits up to 1000 volts a.c. and 1500 volts d.c.	MEM10003	Install and test electrical wiring and circuits up to 1000 volts a.c. and 1500 volts d.c.	Equivalent
MEM10004B	Enter and change programmable controller operational parameters	MEM10004	Enter and change programmable controller operational parameters	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM10005B	Commission programmable controller programs	MEM10005	Commission programmable controller programs	Equivalent
MEM10006B	Install machine/plant	MEM10006	Install machine/plant (Release 2)	Equivalent
MEM10007C	Modify control systems	MEM10007	Modify control systems (Release 2)	Equivalent
MEM10008B	Undertake commissioning procedures for plant and/or equipment	MEM10008	Undertake commissioning procedures for plant and/or equipment (Release 2)	Equivalent
MEM10009B	Install refrigeration and air conditioning plant and equipment	MEM10009	Install refrigeration and air conditioning plant and equipment	Equivalent
MEM10010B	Install pipework and pipework assemblies	MEM10010	Install pipework and pipework assemblies	Equivalent
MEM10011B	Terminate and connect specialist cables	MEM10011	Terminate and connect specialist cables	Equivalent
MEM10013A	Install split air conditioning systems and associated pipework	MEM10013	Install split air conditioning systems and associated pipework	Equivalent
MEM11001C	Erect/dismantle scaffolding and equipment	MEM11001	Erect/dismantle scaffolding and equipment	Equivalent
MEM11002C	Erect/dismantle complex scaffolding and equipment	MEM11002	Erect/dismantle intermediate scaffolding and equipment	New title. Equivalent
MEM11003B	Coordinate erection/dismantling of complex scaffolding/equipment	MEM11003	Coordinate erection/dismantling of complex scaffolding/equipment	Equivalent
MEM11004B	Undertake dogging	MEM11004	Undertake dogging	Equivalent
MEM11005B	Pick and process order	MEM11005	Pick and process order	Equivalent
MEM11006B	Perform production packaging	MEM11006	Perform production packaging	Equivalent
MEM11007B	Administer inventory procedures	MEM11007	Administer inventory procedures	Equivalent
MEM11008B	Package materials (stores and warehouse)	MEM11008	Package materials (stores and warehouse)	Equivalent
MEM11009B	Handle/move bulk fluids/gases	MEM11009	Handle/move bulk fluids/gases	Equivalent
MEM11010B	Operate mobile load shifting equipment	MEM11010	Operate mobile load shifting equipment	Equivalent
MEM11011B	Undertake manual handling	MEM11011	Undertake manual handling	Equivalent
MEM11012B	Purchase materials	MEM11012	Purchase materials	Equivalent
MEM11013B	Undertake warehouse receival process	MEM11013	Undertake warehouse receival process	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM11014B	Undertake warehouse dispatch process	MEM11014	Undertake warehouse dispatch process	Equivalent
MEM11015B	Manage warehouse inventory system	MEM11015	Manage warehouse inventory system	Equivalent
MEM11016B	Order materials	MEM11016	Order materials	Equivalent
MEM11017B	Organise and lead stocktakes	MEM11017	Organise and lead stocktakes	Equivalent
MEM11018B	Organise and maintain warehouse stock receipt and/or dispatch system	MEM11018	Organise and maintain warehouse stock receipt and dispatch system	Equivalent
MEM11019B	Undertake tool store procedures	MEM11019	Undertake tool store procedures	Equivalent
MEM11020B	Perform advanced warehouse computer operations	MEM11020	Perform advanced warehouse computer operations	Equivalent
MEM11021B	Perform advanced operation of load shifting equipment	MEM11021	Perform advanced operation of load shifting equipment	Equivalent
MEM11022B	Operate fixed/moveable load shifting equipment	MEM11022	Operate fixed/moveable load shifting equipment	Equivalent
MEM11023A	Operate a bridge and gantry crane	MEM11023	Operate a bridge and gantry crane	Equivalent
MEM11024A	Undertake basic rigging	MEM11024	Undertake basic rigging	Equivalent
MEM11025A	Operate a non-slewing mobile crane of greater than three tonnes capacity	MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity	Equivalent
MEM12001B	Use comparison and basic measuring devices	MEM12001	Use comparison and basic measuring devices	Equivalent
MEM12002B	Perform electrical/electronic measurement	MEM12002	Perform electrical/electronic measurement	Equivalent
MEM12003B	Perform precision mechanical measurement	MEM12003	Perform precision mechanical measurement	Equivalent
MEM12004B	Perform precision electrical/electronic measurement	MEM12004	Perform precision electrical/electronic measurement	Equivalent
MEM12005B	Calibrate measuring equipment	MEM12005	Calibrate measuring equipment	Equivalent
MEM12006C	Mark off/out (general engineering)	MEM12006	Mark off/out (general engineering) (Release 2)	Equivalent
MEM12007D	Mark off/out structural fabrications and shapes	MEM12007	Mark off/out structural fabrications and shapes (Release 2)	Equivalent
MEM12019B	Measure components using coordinate measuring machines	MEM12019	Measure components using coordinate measuring machines	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM12020B	Set and operate coordinate measuring machines	MEM12020	Set and operate coordinate measuring machines	Equivalent
MEM12021B	Program coordinate measuring machines	MEM12021	Program coordinate measuring machines	Equivalent
MEM12022B	Program coordinate measuring machines (advanced)	MEM12022	Program coordinate measuring machines (advanced)	Equivalent
MEM12023A	Perform engineering measurements	MEM12023	Perform engineering measurements	Equivalent
MEM12024A	Perform computations	MEM12024	Perform computations	Equivalent
MEM12025A	Use graphical techniques and perform simple statistical computations	MEM12025	Use graphical techniques and perform simple statistical computations	Equivalent
		MEM12026	Perform advanced trade calculations in a manufacturing, engineering or related environment	New Computations Unit
MEM13001B	Perform emergency first aid	MEM13001	Perform emergency first aid	Equivalent
MEM13002B	Undertake occupational health and safety activities in the workplace	MEM13002	Undertake work health and safety activities in the workplace	Equivalent
MEM13003B	Work safely with industrial chemicals and materials	MEM13003	Work safely with industrial chemicals and materials	Equivalent
MEM13004B	Work safely with molten metals/glass	MEM13004	Work safely with molten metals/glass	Equivalent
MEM13006B	Collect and evaluate occupational health and safety data for an enterprise or section of an enterprise	MEM13006	Collect and evaluate work health and safety data for an enterprise or section of an enterprise	Equivalent
MEM13007B	Maintain water treatment systems for cooling towers	MEM13007	Maintain water treatment systems for cooling towers	Equivalent
MEM13010A	Supervise occupational health and safety in an industrial work environment	MEM13010	Supervise work health and safety in an industrial work environment	Equivalent
MEM13013B	Work safely with ionizing radiation	MEM13013	Work safely with ionizing radiation	Equivalent
MEM13014A	Apply principles of occupational health and safety in the work environment			Superseded by MEM13015 Not equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
		MEM13015	Work safely and effectively in manufacturing and engineering	New unit, supersedes MEM13014A, MEM14004A, MEM15002A MEM15024A MEM16007A Not equivalent
MEM14001B	Schedule material deliveries	MEM14001	Schedule material deliveries	Equivalent
MEM14002B	Undertake basic process planning	MEM14002	Undertake basic process planning	Equivalent
MEM14003B	Undertake basic production scheduling	MEM14003	Undertake production scheduling	New Title. Equivalent
MEM14004A	Plan to undertake a routine task			Superseded by MEM13015 Not equivalent
MEM14005A	Plan a complete activity	MEM14006	Plan work activities	Equivalent
MEM15001B	Perform basic statistical quality control	MEM15001	Perform basic statistical quality control	Equivalent
MEM15002A	Apply quality systems			Superseded by MEM13015 Not equivalent
MEM15003B	Use improvement processes in team activities	MEM15003	Use improvement processes in team activities	Equivalent
MEM15004B	Perform inspection	MEM15004	Perform inspection	Equivalent
MEM15005B	Select and control inspection processes and procedures	MEM15005	Select and control inspection processes and procedures	Equivalent
MEM15007B	Conduct product and/or process capability studies	MEM15007	Conduct product and/or process capability studies	Equivalent
MEM15008B	Perform advanced statistical quality control	MEM15008	Perform advanced statistical quality control	Equivalent
MEM15010B	Perform laboratory procedures	MEM15010	Perform laboratory procedures	Equivalent
MEM15011B	Exercise external quality assurance	MEM15011	Exercise external quality assurance	Equivalent
MEM15012B	Maintain/supervise the application of quality procedures	MEM15012	Maintain/supervise the application of quality procedures	Equivalent
MEM15024A	Apply quality procedures			Superseded by MEM13015 Not equivalent
MEM16001B	Give formal presentations and take part in meetings	MEM16001	Give formal presentations and take part in meetings	Equivalent
MEM16002C	Conduct formal interviews and negotiations	MEM16002	Conduct formal interviews and negotiations	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM16003B	Provide advanced customer service	MEM16003	Provide advanced customer service	Equivalent
MEM16004B	Perform internal/external customer service	MEM16004	Perform internal/external customer service	Equivalent
MEM16005A	Operate as a team member to conduct manufacturing, engineering or related activities	MEM16005	Operate as a team member to conduct manufacturing, engineering or related activities	Equivalent
MEM16006A	Organise and communicate information	MEM16006	Organise and communicate information	Equivalent
MEM16007A	Work with others in a manufacturing, engineering or related environment			Superseded by MEM13015 Not equivalent
MEM16008A	Interact with computing technology	MEM16008	Interact with computing technology	Equivalent
MEM16009A	Research and analyse engineering information	MEM16009	Research and analyse engineering information	Equivalent
MEM16010A	Write reports	MEM16010	Write reports	Equivalent
MEM16011A	Communicate with individuals and small groups	MEM16011	Communicate with individuals and small groups	Equivalent
MEM16012A	Interpret technical specifications and manuals	MEM16012	Interpret technical specifications and manuals	Equivalent
MEM16013A	Operate in a self-directed team	MEM16013	Operate in a self-directed team	Equivalent
MEM16014A	Report technical information	MEM16014	Report technical information	Equivalent
MEM17001B	Assist in development and deliver training in the workplace	MEM17001	Assist in development and deliver training in the workplace	Equivalent
MEM17002B	Conduct workplace assessment	MEM17002	Conduct workplace assessment	Equivalent
MEM17003A	Assist in the provision of on the job training	MEM17003	Assist in the provision of on-the-job training	Equivalent
MEM18001C	Use hand tools	MEM18001	Use hand tools	Equivalent
MEM18002B	Use power tools/hand held operations	MEM18002	Use power tools/hand held operations	Equivalent
MEM18003C	Use tools for precision work	MEM18003	Use tools for precision work	Equivalent
MEM18004B	Maintain and overhaul mechanical equipment	MEM18004	Maintain and overhaul mechanical equipment (Release 2)	Equivalent
MEM18005B	Perform fault diagnosis, installation and removal of bearings	MEM18005	Perform fault diagnosis, installation and removal of bearings (Release 2)	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM18006C	Repair and fit engineering components	MEM18006	Perform precision fitting of engineering components (Release 2)	New Title Equivalent
MEM18007B	Maintain and repair mechanical drives and mechanical transmission assemblies	MEM18007	Maintain and repair mechanical drives and mechanical transmission assemblies (Release 2)	Equivalent
MEM18008B	Balance equipment	MEM18008	Balance equipment (Release 2)	Equivalent
MEM18009B	Perform levelling and alignment of machines and engineering components	MEM18009	Perform precision levelling and alignment of machines and engineering components (Release 2)	New Title. Equivalent
MEM18010C	Perform equipment condition monitoring and recording	MEM18010	Perform equipment condition monitoring and recording	Equivalent
MEM18011C	Shut down and isolate machines/equipment	MEM18011	Shut down and isolate machines/equipment	Equivalent
MEM18012B	Perform installation and removal of mechanical seals	MEM18012	Perform installation and removal of mechanical seals (Release 2)	Equivalent
MEM18013B	Perform gland packing	MEM18013	Perform gland packing	Equivalent
MEM18014B	Manufacture press tools and gauges	MEM18014	Manufacture press tools and gauges (Release 2)	Equivalent
MEM18015B	Maintain tools and dies	MEM18015	Maintain tools and dies (Release 2)	Equivalent
MEM18016B	Analyse plant and equipment condition monitoring results	MEM18016	Analyse plant and equipment condition monitoring results (Release 2)	Equivalent
MEM18017C	Modify mechanical systems and equipment	MEM18017	Modify mechanical systems and equipment (Release 2)	Equivalent
MEM18018C	Maintain pneumatic system components	MEM18018	Maintain pneumatic system components (Release 2)	Equivalent
MEM18019B	Maintain pneumatic systems	MEM18019	Maintain pneumatic systems (Release 2)	Equivalent
MEM18020B	Maintain hydraulic system components	MEM18020	Maintain hydraulic system components (Release 2)	Equivalent
MEM18021B	Maintain hydraulic systems	MEM18021	Maintain hydraulic systems (Release 2)	Equivalent
MEM18022B	Maintain fluid power controls	MEM18022	Maintain fluid power controls (Release 2)	Equivalent
MEM18023B	Modify fluid power system operation	MEM18023	Modify fluid power system operation (Release 2)	Equivalent
MEM18024B	Maintain engine cooling systems	MEM27001	Maintain and repair stationary and mobile plant engine cooling systems	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM18025B	Service combustion engines	MEM27032	Service combustion engines	Equivalent
MEM18026C	Test compression ignition fuel systems	MEM27002	Test and repair compression ignition systems	Equivalent
MEM18027C	Overhaul engine fuel system components	MEM27003	Overhaul engine fuel system components	Equivalent
MEM18028B	Maintain engine lubrication systems	MEM27004	Maintain and repair engine lubrication systems	Equivalent
MEM18029B	Tune diesel engines	MEM27005	Tune diesel engines	Equivalent
MEM18030B	Diagnose and rectify low voltage electrical systems	MEM27006	Diagnose and rectify batteries, low voltage sensors and circuits	Equivalent
MEM18031B	Diagnose and rectify low voltage starting systems	MEM27007	Diagnose and rectify low voltage starting systems	Equivalent
MEM18032B	Maintain induction/exhaust systems	MEM27008	Maintain induction, exhaust and emission control systems	Not equivalent
MEM18033B	Perform engine bottom-end overhaul	MEM27030	Perform engine bottom-end overhaul	Equivalent
MEM18034B	Perform engine top-end overhaul	MEM27031	Perform engine top-end overhaul (Release 2)	Equivalent
MEM18035B	Diagnose and rectify braking systems	MEM27009	Diagnose and rectify braking systems	Equivalent
MEM18037B	Diagnose and rectify low voltage charging systems	MEM27010	Diagnose and rectify low voltage charging systems	Equivalent
MEM18038B	Maintain wheels and tyres	MEM27029	Maintain wheels and tyres	Equivalent
MEM18039B	Diagnose and rectify track type undercarriage	MEM27011	Maintain track type undercarriage on mobile plant	Equivalent
MEM18040B	Maintain suspension systems	MEM27012	Maintain mobile plant suspension systems	Equivalent
MEM18041B	Maintain steering systems	MEM27013	Maintain steering systems	Equivalent
MEM18042C	Diagnose and rectify manual transmissions	MEM27028	Diagnose and rectify manual transmissions	Equivalent
MEM18043C	Diagnose and rectify automatic transmissions	MEM27014	Diagnose and rectify automatic transmissions	Equivalent
MEM18044C	Diagnose and rectify drive line and final drives	MEM27015	Diagnose and rectify drive line and final drives	Equivalent
MEM18045B	Fault find/repair electrical equipment/components up to 250 volts single phase supply	MEM18045	Fault find and repair electrical equipment/components up to 250 volts single phase supply	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM18046B	Fault find/repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	MEM18046	Fault find and repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	Equivalent
MEM18047B	Diagnose and maintain electronic controlling systems on mobile plant	MEM27016	Diagnose and maintain electronic controlling systems on mobile and stationary plant	Equivalent
MEM18048B	Fault find and repair/rectify basic electrical circuits	MEM18048	Fault find and repair/rectify basic electrical circuits	Equivalent
MEM18049C	Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	MEM18049	Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	Equivalent
MEM18050C	Disconnect/reconnect fixed wired equipment over 1000 volts a.c./1500 volts d.c.	MEM18050	Disconnect/reconnect fixed wired equipment over 1000 volts a.c./1500 volts d.c.	Equivalent
MEM18051B	Fault find and repair/rectify complex electrical circuits	MEM18051	Fault find and repair/rectify complex electrical circuits	Equivalent
MEM18052B	Maintain fluid power systems for mobile plant	MEM27017	Maintain, fault find and rectify hydraulic systems for mobile plant	Equivalent
MEM18053B	Modify fluid power control systems	MEM18053	Modify fluid power control systems (Release 2)	Equivalent
MEM18054B	Fault find, test and calibrate instrumentation systems and equipment	MEM18054	Fault find, test and calibrate instrumentation systems and equipment	Equivalent
MEM18055B	Dismantle, replace and assemble engineering components	MEM18055	Dismantle, replace and assemble engineering components	Equivalent
MEM18056B	Diagnose and repair analog equipment and components	MEM18056	Diagnose and repair analog equipment and components	Equivalent
MEM18057B	Maintain/service analog/digital electronic equipment	MEM18057	Maintain/service analog/digital electronic equipment	Equivalent
MEM18058C	Modify electronic equipment	MEM18058	Modify electronic equipment	Equivalent
MEM18059B	Modify electronic systems	MEM18059	Modify electronic systems	Equivalent
MEM18060B	Maintain, repair control instrumentation – single and multiple loop control systems	MEM18060	Maintain, repair control instrumentation – single and multiple loop control systems	Equivalent
MEM18061B	Maintain/calibrate complex control systems	MEM18061	Maintain/calibrate complex control systems	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM18062B	Install, maintain and calibrate instrumentation sensors, transmitters and final control elements	MEM18062	Install, maintain and calibrate instrumentation sensors, transmitters and final control elements	Equivalent
MEM18063B	Terminate signal and data cables	MEM18063	Terminate signal and data cables	Equivalent
MEM18064B	Maintain instrumentation system components	MEM18064	Maintain instrumentation system components	Equivalent
MEM18065B	Diagnose and repair digital equipment and components	MEM18065	Diagnose and repair digital equipment and components	Equivalent
MEM18066B	Diagnose and repair microprocessor-based equipment	MEM18066	Diagnose and repair microprocessor-based equipment	Equivalent
MEM18067B	Tune control loops – multi controller or multi element systems	MEM18067	Tune control loops – multi controller or multi element systems	Equivalent
MEM18069B	Maintain, repair instrumentation process control analysers	MEM18069	Maintain, repair instrumentation process control analysers	Equivalent
MEM18071B	Connect/disconnect fluid conveying system components	MEM18071	Connect and disconnect fluid conveying system components	Equivalent
MEM18072B	Manufacture fluid conveying conductor assemblies	MEM18072	Manufacture fluid conveying conductor assemblies	Equivalent
MEM18073A	Perform advanced equipment testing and diagnostics on mobile plant and equipment	MEM27033	Perform advanced equipment testing and diagnostics on mobile plant and equipment	Equivalent
		MEM18083	Handle fluorocarbon refrigerants according to regulations	New unit
MEM18084A	Commission and decommission split air conditioning systems	MEM18084	Commission and decommission split air conditioning systems	Equivalent
MEM18085A	Install, service and repair domestic air conditioning and refrigeration appliances	MEM18085	Install, service and repair domestic air conditioning and refrigeration appliances	Equivalent
MEM18086B	Test, recover, evacuate and charge refrigeration systems	MEM18086	Test, recover, evacuate and charge refrigeration systems	Equivalent
MEM18087B	Service and repair domestic and light commercial refrigeration and air conditioning equipment	MEM18087	Service and repair domestic and light commercial refrigeration and air conditioning equipment	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM18088B	Maintain and repair commercial air conditioning systems and components	MEM18088	Maintain and repair commercial air conditioning systems and components	Equivalent
MEM18089B	Maintain and repair central air handling systems	MEM18089	Maintain and repair central air handling systems	Equivalent
MEM18090B	Maintain and repair industrial refrigeration systems and components	MEM18090	Maintain and repair industrial refrigeration systems and components	Equivalent
MEM18091B	Maintain and repair multi stage, cascade and/or ultra-cold industrial refrigeration systems	MEM18091	Maintain and repair multistage, cascade and/or ultra-cold industrial refrigeration systems	Equivalent
MEM18092B	Maintain and repair commercial and/or industrial refrigeration and/or air conditioning controls	MEM18092	Maintain and repair commercial and/or industrial refrigeration and/or air conditioning controls	Equivalent
MEM18093B	Maintain and repair integrated industrial refrigeration and/or large air handling system controls	MEM18093	Maintain and repair integrated industrial refrigeration and/or large air handling system controls	Equivalent
MEM18094B	Service and repair commercial refrigeration	MEM18094	Service and repair commercial refrigeration	Equivalent
MEM18095A	Maintain and repair cooling towers/evaporative condensers and associated equipment	MEM18095	Maintain and repair cooling towers/evaporative condensers and associated equipment	Equivalent
MEM18096A	Maintain, repair/replace and adjust refrigerant flow controls and associated equipment	MEM18096	Maintain, repair/replace and adjust refrigerant flow controls and associated equipment	Equivalent
MEM18097A	Manufacture cavity dies	MEM18097	Manufacture cavity dies (Release 2)	Equivalent
MEM18098A	Prepare to perform work associated with fuel system installation and servicing	MEM18098	Prepare to perform work associated with fuel system installation and servicing	Equivalent
MEM19001B	Perform jewellery metal casting	MEM19001	Perform jewellery metal casting	Equivalent
MEM19002B	Prepare jewellery illustrations	MEM19002	Prepare jewellery illustrations	Equivalent
MEM19003B	Handle gem materials	MEM19003	Handle gem materials	Equivalent
MEM19004B	Handle and examine gemstone materials	MEM19004	Handle and examine gemstone materials	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM19005B	Produce three-dimensional precision items	MEM19005	Produce three-dimensional precision items	Equivalent
MEM19006B	Replace watch batteries	MEM19006	Replace watch batteries	Equivalent
MEM19007B	Perform gemstone setting	MEM19007	Perform gemstone setting	Equivalent
MEM19008B	Prepare jewellery designs	MEM19008	Prepare jewellery designs	Equivalent
MEM19009B	Perform investment procedures for lost wax casting process	MEM19009	Perform investment procedures for lost wax casting process	Equivalent
MEM19010B	Produce rubber moulds for lost wax casting process	MEM19010	Produce rubber moulds for lost wax casting process	Equivalent
MEM19011B	Perform wax injection of moulds for lost wax casting process	MEM19011	Perform wax injection of moulds for lost wax casting process	Equivalent
MEM19012B	Produce jewellery wax model	MEM19012	Produce jewellery wax model	Equivalent
MEM19013B	Produce jewellery metal masters	MEM19013	Produce jewellery metal masters	Equivalent
MEM19014B	Perform hand engraving	MEM19014	Perform hand engraving	Equivalent
MEM19015B	Perform jewellery enamelling	MEM19015	Perform jewellery enamelling	Equivalent
MEM19016B	Construct jewellery components	MEM19016	Construct jewellery components	Equivalent
MEM19017B	Fabricate jewellery items	MEM19017	Fabricate jewellery items	Equivalent
MEM19018B	Repair jewellery items	MEM19018	Repair jewellery items	Equivalent
MEM19020B	Fault-find and maintain micro-mechanisms	MEM19020	Fault find and maintain micro-mechanisms	Equivalent
MEM19021B	Diagnose and service micro-mechanisms	MEM19021	Diagnose and service micro-mechanisms	Equivalent
MEM19022B	Perform precision micro-mechanism diagnosis and servicing	MEM19022	Perform precision micro-mechanism diagnosis and servicing	Equivalent
MEM20001A	Produce keys	MEM20001	Produce keys	Equivalent
MEM20002A	Assemble and test lock mechanisms	MEM20002	Assemble and test lock mechanisms	Equivalent
MEM20003A	Install and upgrade locks and hardware	MEM20003	Install and upgrade locks and hardware	Equivalent
MEM20004A	Gain entry	MEM20004	Gain entry	Equivalent
MEM20005A	Install and maintain door control devices/systems	MEM20005	Install and maintain door control devices/systems	Equivalent
MEM20006A	Maintain and service mechanical locking devices	MEM20006	Maintain and service mechanical locking devices	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM20007A	Plan and prepare a masterkey system	MEM20007	Plan and prepare a masterkey system	Equivalent
MEM20008A	Develop and implement a masterkey system	MEM20008	Develop and implement a masterkey system	Equivalent
MEM20009A	Gain entry and reinstate fire and security containers	MEM20009	Gain entry and reinstate fire and security containers	Equivalent
MEM20010A	Gain entry and reinstate automotive locking systems	MEM20010	Gain entry and reinstate automotive locking systems	Equivalent
MEM20011A	Service and repair fire and security containers	MEM20011	Service and repair fire and security containers	Equivalent
MEM20012A	Service and repair mechanical automotive locking systems	MEM20012	Service and repair mechanical automotive locking systems	Equivalent
MEM20013A	Service automotive transponder systems	MEM20013	Service automotive transponder systems	Equivalent
MEM20014A	Perform a site security survey	MEM20014	Perform a site security survey	Equivalent
MEM21001A	Replace watch batteries, capacitors and bands	MEM21001	Replace watch batteries, capacitors and bands	Equivalent
MEM21002A	Perform watch movement exchange	MEM21002	Perform watch movement exchange	Equivalent
MEM21003A	Perform watch case servicing, repair and refurbishment	MEM21003	Perform watch case servicing, repair and refurbishment	Equivalent
MEM21004A	Clean watch and clock components	MEM21004	Clean watch and clock components	Equivalent
MEM21005A	Diagnose faults in quartz watches	MEM21005	Diagnose faults in quartz watches	Equivalent
MEM21006A	Service quartz watches	MEM21006	Service quartz watches	Equivalent
MEM21007A	Service complex quartz watches	MEM21007	Service complex quartz watches	Equivalent
MEM21008A	Service mechanical watches	MEM21008	Service mechanical watches	Equivalent
MEM21009A	Inspect, diagnose, adjust and repair mechanical watches	MEM21009	Inspect, diagnose, adjust and repair mechanical watches	Equivalent
MEM21010A	Service watch power generating systems	MEM21010	Service watch power generating systems	Equivalent
MEM21011A	Service calendar and other dial indication mechanisms for watches	MEM21011	Service calendar and other dial indication mechanisms for watches	Equivalent
MEM21012A	Service and repair mechanical watch oscillating systems	MEM21012	Service and repair mechanical watch oscillating systems	Equivalent
MEM21013A	Service, test and adjust watch escapements	MEM21013	Service, test and adjust watch escapements	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM21014A	Service mechanical chronograph watches	MEM21014	Service mechanical chronograph watches	Equivalent
MEM21015A	Perform precision watch timing and adjustment	MEM21015	Perform precision watch timing and adjustment	Equivalent
MEM21016A	Install and set up clocks	MEM21016	Install and set up clocks	Equivalent
MEM21017A	Service and repair clock timepieces	MEM21017	Service and repair clock timepieces	Equivalent
MEM21018A	Service clock escapements and oscillating systems	MEM21018	Service clock escapements and oscillating systems	Equivalent
MEM21019A	Service and repair clock striking mechanisms	MEM21019	Service and repair clock striking mechanisms	Equivalent
MEM21020A	Service and repair clock chiming mechanisms	MEM21020	Service and repair clock chiming mechanisms	Equivalent
MEM21021A	Restore clockwork mechanisms	MEM21021	Restore clockwork mechanisms	Equivalent
MEM21022A	Manufacture watch and clock components	MEM21022	Manufacture watch and clock components	Equivalent
MEM21023A	Plan, set up and operate horological workshop or service centre	MEM21023	Plan, set up and operate horological workshop or service centre	Equivalent
MEM25001B	Apply fibre-reinforced materials	MEM25001	Apply fibre-reinforced materials	Equivalent
MEM25002B	Form and integrate fibre-reinforced structures	MEM25002	Form and integrate fibre-reinforced structures	Equivalent
MEM25003B	Set up marine vessel structures	MEM25003	Set up marine vessel structures (Release 2)	Equivalent
MEM25004B	Fair and shape surfaces	MEM25004	Fair and shape surfaces	Equivalent
MEM25005B	Construct and assemble marine vessel timber components	MEM25005	Construct and assemble marine vessel timber components	Equivalent
MEM25006B	Undertake marine sheathing operations	MEM25006	Undertake marine sheathing operations	Equivalent
MEM25007B	Maintain marine vessel surfaces	MEM25007	Maintain marine vessel surfaces	Equivalent
MEM25008B	Repair marine vessel surfaces and structures	MEM25008	Repair marine vessel surfaces and structures (Release 2)	Equivalent
MEM25009B	Form timber shapes using hot processes	MEM25009	Form timber shapes using hot processes (Release 2)	Equivalent
MEM25010B	Perform fitout procedures	MEM25010	Perform fitout procedures (Release 2)	Equivalent
MEM25011B	Install marine systems	MEM25011	Install marine systems	Equivalent
MEM25012B	Install and test operations of marine auxiliary systems	MEM25012	Install and test operations of marine auxiliary systems	Equivalent

	MEM05 Release 11.1		MEM Release 2.1	
Code	Title	Code	Title	Comment / Equivalence
MEM25013B	Produce three-dimensional plugs/moulds	MEM25013	Produce three-dimensional plugs/moulds (Release 2)	Equivalent
MEM25014B	Perform marine slipping operations	MEM25014	Perform marine slipping operations	Equivalent
MEM25015A	Assemble and install equipment and accessories/ancillaries	MEM25015	Assemble and install equipment and accessories/ancillaries	Equivalent
MEM26001A	Lay up composites using open moulding techniques	MEM26001	Lay up composites using open moulding techniques	Equivalent
MEM26002A	Lay up composites using vacuum closed moulding techniques	MEM26002	Lay up composites using vacuum closed moulding techniques	Equivalent
MEM26003A	Lay up composites using pressure closed moulding techniques	MEM26003	Lay up composites using pressure closed moulding techniques	Equivalent
MEM26004A	Make basic plugs for composites fabrication	MEM26004	Make basic plugs for composites fabrication	Equivalent
MEM26005A	Make basic moulds for composites fabrication	MEM26005	Make basic moulds for composites fabrication	Equivalent
MEM26006A	Mark and cut out sheets for composite use	MEM26006	Mark and cut out sheets for composite use	Equivalent
MEM26007A	Select and use reinforcing appropriate for product	MEM26007	Select and use reinforcing appropriate for product	Equivalent
MEM26008A	Select and use resin systems appropriate for product	MEM26008	Select and use resin systems appropriate for product	Equivalent
MEM26009A	Select and use cores and fillers appropriate for product	MEM26009	Select and use cores and fillers appropriate for product	Equivalent
MEM26010A	Store and handle composite materials	MEM26010	Store and handle composite materials	Equivalent
MEM26011A	Determine materials and techniques for a composite component or product	MEM26011	Determine materials and techniques for a composite component or product	Equivalent
MEM26012A	Record and trial work processes for one-off composite products	MEM26012	Record and trial work processes for one-off composite products	Equivalent
MEM26013A	Select and use composite processes or systems appropriate for product	MEM26013	Select and use composite processes or systems appropriate for product	Equivalent
MEM26014A	Adjust resin chemicals for current conditions	MEM26014	Adjust resin chemicals for current conditions	Equivalent
MEM26015A	Select and apply repair techniques	MEM26015	Select and apply repair techniques	Equivalent
MEM26016A	Select and use joining techniques	MEM26016	Select and use joining techniques	Equivalent
MEM26017A	Prepare composite or other substrate surfaces	MEM26017	Prepare composite or other substrate surfaces	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM26018A	Organise composite trials	MEM26018	Organise composite trials	Equivalent
MEM26019A	Finish a composite product	MEM26019	Finish a composite product	Equivalent
MEM26020A	Identify and interpret required standards for composites	MEM26020	Identify and interpret required standards for composites	Equivalent
		MEM27018	Test, diagnose and rectify mobile and stationary plant external monitoring and control systems	New unit
		MEM27019	Diagnose, repair and replace diesel engines in stationary and mobile plant	New unit
		MEM27020	Apply knowledge of large combustion engine operations to service and maintenance tasks	New unit
		MEM27021	Maintain, fault find and repair stationary plant gas turbine engines	New unit
		MEM27022	Maintain, fault find and repair traction drive mechanics	New unit
		MEM27023	Diagnose and rectify fieldbus circuits in mobile and stationary plant and equipment	New unit
		MEM27024	Diagnose and rectify mobile plant hydrostatic systems	New unit
		MEM27025	Maintain, diagnose and rectify fluid power controls in mobile equipment	New unit
		MEM27026	Service and repair mobile plant air conditioning systems	New unit
		MEM27027	Install or modify mobile plant air conditioning systems	New unit
MEM50001B	Classify recreational boating technologies and features	MEM50001	Classify recreational boating technologies and features	Equivalent
MEM50002B	Work safely on marine craft	MEM50002	Work safely on marine craft	Equivalent
MEM50003B	Follow work procedures to maintain the marine environment	MEM50003	Follow work procedures to maintain the marine environment	Equivalent

MEM05 Release 11.1		MEM Release 2.1		
Code	Title	Code	Title	Comment / Equivalence
MEM50004B	Maintain quality of environment by following marina codes	MEM50004	Maintain quality of environment by following marina codes	Equivalent
MEM50005B	Refuel vessels	MEM50005	Refuel vessels	Equivalent
MEM50006B	Check operational capability of marine craft	MEM50006	Check operational capability of marine craft	Equivalent
MEM50007B	Check operational capability of sails and sail operating equipment	MEM50007	Check operational capability of sails and sail operating equipment	Equivalent
MEM50008B	Carry out trip preparation and planning	MEM50008	Carry out trip preparation and planning	Equivalent
MEM50009B	Safely operate a mechanically powered recreational boat	MEM50009	Safely operate a mechanically powered recreational boat	Equivalent
MEM50010B	Respond to boating emergencies and incidents	MEM50010	Respond to boating emergencies and incidents	Equivalent

MEM units of competency – mapping of Release 1.2 to Release 2.0

Code	Title	Code	Title	Comment / Equivalence
		MEM10016	Terminate and test electrical wiring and accessories	Equivalent
		MEM10019	Select circuit protection devices by type and rating, fit to switchboards and install earthing	Equivalent
		MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	Equivalent
		MEM10021	Inspect, test and verify electrical installations	Equivalent
		MEM10023	Design and connect control switching of circuits for building services and industrial equipment	Equivalent
		MEM10024	Install and troubleshoot luminaires and ancillary equipment	Equivalent
		MEM10025	Undertake a capstone assessment	Equivalent
		MEM13016	Work in hazardous areas	Equivalent
		MEM13017	Apply safety practices, procedures and compliance standards associated with licensed electrical work	Equivalent
		MEM18100	Fault-find, test and rectify AC machines and circuits	Equivalent
		MEM18102	Fault-find, test and rectify single and three-phase transformers	Equivalent
		MEM18103	Fault-find, test and rectify electrical circuits and equipment	Equivalent
		MEM18104	Dismantle, replace and assemble electrical components and equipment	Equivalent

Code	Title	Code	Title	Comment / Equivalence
		MEM18105	Disconnect and reconnect high voltage fixed wired equipment	Equivalent
		MEM18106	Terminate communication and data cables	Equivalent
		MEM18108	Troubleshoot analog and digital electronic equipment	Equivalent
		MEM18109	Troubleshoot instrumentation systems and equipment	Equivalent

Appendix 4: Mapping – Industrial Electrician units

Mapping of MEM Release 1.0 Industrial Electrician units of competency to MEM05

Note: This mapping relates to Release 1.0 of MEM31215 Certificate III in Engineering – Industrial Electrician – historical reference only. The MEM05 units included in MEM Release 1.0 were replaced in MEM Release 2.0.

The new MEM Manufacturing and Engineering Training Package units of competency were developed specifically for the *MEM31219 Certificate III in Engineering – Industrial Electrician* qualification. Whilst there is some content duplication with existing MEM05 units, the **new units are not equivalent and do not replace any existing MEM05 units.**

New MEM Industrial Electrician Units	Related existing MEM Units (not replaced)	Comment
MEM10016 Terminate and test electrical wiring and accessories	MEM10002 Terminate and connect electrical wiring	Not equivalent. Does not replace existing units.
	MEM10011 Terminate and connect specialist cables	
MEM10018 Select cable types and sizes to suit loads and electrical installation environment		New Unit
MEM10019 Select circuit protection devices by type and rating, fit to switchboards and install earthing		New Unit
MEM10020 Install low voltage cabling and fit-off accessories, appliances and equipment		New Unit
MEM10021 Inspect, test and verify electrical installations		New Unit
MEM10022 Commission and decommission high and low voltage equipment or installations		New Unit
MEM10023 Design and connect control switching of circuits for building services and industrial equipment		New Unit
MEM10024 Install and trouble shoot luminaires and ancillary equipment		New Unit
MEM10025 Undertake a capstone assessment		New Unit
MEM13016 Work in hazardous areas		New unit
MEM13017 Apply safety practices, procedures and compliance standards associated with licensed electrical work		New Unit

New MEM Industrial Electrician Units	Related existing MEM Units (not replaced)	Comment
MEM18100 Fault-find, test and rectify AC machines and circuits	MEM18046 Fault find and repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	Not equivalent. Does not replace existing units.
MEM18102 Fault-find, test and rectify single and three-phase transformers		
MEM18103 Fault-find, test and rectify electrical circuits and equipment	MEM18048 Fault find and repair/rectify basic electrical circuits	Not equivalent. Does not replace existing units.
	MEM18051 Fault find and repair/rectify complex electrical circuits	
MEM18104 Dismantle, replace and assemble electrical components and equipment	MEM18055 Dismantle, replace and assemble engineering components	Not equivalent. Does not replace existing unit.
MEM18105 Disconnect and reconnect high voltage fixed wired equipment	MEM18049 Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	Not equivalent. Does not replace existing units.
	MEM18050 Disconnect/reconnect fixed wired equipment over 1000 volts a.c./1500 volts d.c.	
MEM18106 Terminate communication and data cables	MEM18063 Terminate signal and data cables	Not equivalent. Does not replace existing unit.
MEM18108 Trouble shoot analog and digital electronic equipment		New unit
MEM18109 Trouble shoot instrumentation systems and equipment		New unit

Mapping of MEM Release 1.2 Industrial Electrician units of competency

Note: MEM05 units were updated in MEM Release 2.0.

Unit code	Unit title	Prerequisites	Comment
MEM10016	Terminate and test electrical wiring and accessories	MEM10018 MEM18001C	Release 2 – equivalent
MEM10018	Select cable types and sizes to suit loads and electrical installation environment		Release 2 – equivalent
MEM10019	Select circuit protection devices by type and rating, fit to switchboards and install earthing	MEM10016 MEM10018 MEM18001C	Release 2 – equivalent
MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	MEM10016 MEM10018 MEM10019 MEM10023A MEM10024 MEM18001C	Release 2 – equivalent
MEM10021	Inspect, test and verify electrical installations	MEM10016 MEM10018 MEM10019 MEM10020 MEM10022 MEM10023A MEM10024 MEM12023 MEM18001C MEM18100 MEM18102 MEM18103 MEM18104	Release 2 – equivalent
MEM10022	Commission and decommission high and low voltage equipment or installations		Release 2 – equivalent
MEM10023	Design and connect control switching of circuits for building services and industrial equipment	MEM10016 MEM10018 MEM18001C	Release 2 – equivalent
MEM10024	Install and troubleshoot luminaires and ancillary equipment	MEM10016 MEM10018 MEM10019 MEM10023 MEM18001C	Release 2 – equivalent
MEM10025	Undertake a capstone assessment	MEM10016 MEM10018 MEM10019 MEM10020	Release 2 – equivalent

Unit code	Unit title	Prerequisites	Comment
		MEM10021 MEM10022 MEM10023 MEM10024 MEM12023A MEM13014A MEM13017 MEM17003A MEM18001C MEM18100 MEM18102 MEM18103 MEM18104 UEENEEE101A UEENEEE104A UEENEEE107A UEENEEG102A	
MEM13016	Work in hazardous areas	MEM13014A	Release 2 – equivalent
MEM13017	Apply safety practices, procedures and compliance standards associated with licensed electrical work	MEM13014A	Release 2 – equivalent
MEM18100	Fault-find, test and rectify AC machines and circuits	MEM10016 MEM10018 MEM10019 MEM10023 MEM12023A MEM18001C MEM18104	Release 2 – equivalent
MEM18102	Fault-find, test and rectify single and three-phase transformers	MEM10016 MEM10018 MEM10019 MEM12023A MEM18001C MEM18104	Release 2 – equivalent
MEM18103	Fault-find, test and rectify electrical circuits and equipment	MEM10016 MEM10018 MEM10019 MEM12023A MEM18001C MEM18100 MEM18102 MEM18104	Release 2 – equivalent
MEM18104	Dismantle, replace and assemble electrical components and equipment	MEM12023A MEM18001C	Release 2 – equivalent

Unit code	Unit title	Prerequisites	Comment
MEM18105	Disconnect and reconnect high voltage fixed wired equipment	MEM10016 MEM10018 MEM18001C	Release 2 – equivalent
MEM18106	Terminate communication and data cables	MEM05001B MEM12023A MEM18001C	Release 2 – equivalent
MEM18108	Troubleshoot analog and digital electronic equipment	MEM12023A MEM18001C MEM18104	Release 2 – equivalent
MEM18109	Troubleshoot instrumentation systems and equipment	MEM12023A MEM18001C MEM18104 MEM18108	Release 2 – equivalent

Mapping of new 55 EPCs and changes to MEM units of competency – Release 1.0

Background

In 2001 the National Uniform Electrical Licensing Advisory Council (NUELAC) developed 66 Essential Performance Capability (EPC) Requirements for Licensed Electricians and these have now been reviewed to ensure they are still relative and adequate. As a result, 55 updated Essential Performance Capabilities (EPCs) were developed, incorporating all the outcomes of the former EPCs. Since MEM31215 Certificate III in Engineering – Industrial Electrician was developed in the context of the original 66 EPCs, a review of the qualification has been undertaken to identify the changes required to the units to reflect the new 55 EPCs.

Summary of changes required

The majority of the revised EPCs have little or no effect on the content or workplace outcomes of the existing MEM-coded units of competency in *MEM31219 Certificate III in Engineering – Industrial Electrician*. Refer to the attached mapping of the previous 66 EPCs to the new 55 EPCs.

Minor adjustments were required, as listed below.

- EPC 16 – Knowledge of alternate earthing systems when required by local Regulatory Authorities included as part of Knowledge Evidence in MEM10019 and MEM10025.
- EPC 23 – Knowledge of minimum fault levels specified by electricity network operator included as part of Knowledge Evidence in MEM10019 and MEM10025.
- EPC 24 – Method of determining prospective fault current included as part of Performance and Knowledge Evidence of MEM10019. EPC 24 included in Knowledge Evidence in MEM10025 as EPC 24 is now Critical.
- EPC 26 – Need for calibration of instruments included as part of Knowledge Evidence in MEM10021. EPC26 included in Knowledge Evidence of MEM10025 as EPC 26 is now Critical.
- EPC 27 – Since the new EPC now includes specialist cables (old EPC 49) included as part of Knowledge Evidence of MEM10025.
- EPC 28 – Knowledge of additional training required to work competently with electrical equipment for hazardous areas included as part of Knowledge Evidence in MEM10020 and MEM10025.
- EPC 30 – Knowledge of reporting of test results included as part of Knowledge Evidence of MEM10025 since this has been included as part of this Critical EPC.
- EPC 31 – Knowledge and skills associated with capacitor banks included as part of Performance and Knowledge Evidence of MEM13017 and MEM10025.
- EPC 34 – Hazards and safety measures when working with adhesives and chemical fixing devices and safe work practices required for working with power and compressed gas operated tools included in Performance and Knowledge Evidence of MEM10016.
- EPC 42 – Knowledge and skills associated with asbestos awareness and reporting, and hazardous gases will need to be included in the Knowledge and Skills Evidence of UEENEEE101A. Precautions to be observed when drilling materials containing asbestos is already covered in Knowledge Evidence of MEM18104.
- EPC 44 – The Knowledge Evidence associated with this EPC included in Knowledge Evidence of MEM10025 and EPC 44 is now Critical.

- EPC 45 – The knowledge and skills associated with working safely at heights and in confined spaces and safe use of ladders and elevated platforms included in Performance and Knowledge Evidence of MEM13017.
- EPC 53 – National Construction Code (NCC) included in Range of Conditions of MEM10024.
- EPC 55 – The demonstrated knowledge and application of electricity generation systems and electricity converters and the requirements of the Wiring Rules for stand-alone and grid connected systems and the basic knowledge of battery storage systems and uninterruptible power supplies with included in the Performance and Knowledge Evidence of MEM13017 as this is a new EPC.

Actions taken

All relevant MEM-coded units of competency have been updated to incorporate the revised 55 EPCs. In addition, the units listed below have had minor adjustments to content in the Range of Conditions and Assessment Requirements sections.

- MEM10016 – EPCs 34 and 35 evidence updated in Range of Conditions, Performance and Knowledge Evidence
- MEM10018 – EPC 21 evidence updated in Knowledge Evidence
- MEM10019 – EPCs 23 and 24 evidence updated in Knowledge Evidence
- MEM10020 – EPCs 24, 25, 28, 29 and 35 evidence updated in Range of Conditions, Performance and Knowledge Evidence. In addition, new element 4 developed to fully encapsulate EPC 38
- MEM10021 – EPC 26 evidence updated in PC 2.3, Performance and Knowledge Evidence
- MEM10022 – EPC 29 added to ERAC requirements as this EPC relates to HV installations
- MEM10024 – EPC 53 evidence updated in Range of Conditions and Knowledge Evidence
- MEM10025 – Performance and Knowledge Evidence updated to reflect the new list of 'critical' EPCs.

Mapping of 55 EPCs to previous 66 EPCs

NOTE: Areas shaded red represent **CRITICAL EPCs**

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
1	Demonstrate a knowledge of basic electrical and energy concepts.	No change	1	UEENEEE104A	Solve problems in d.c. circuits	No effect
2 CRITICAL	Demonstrate a knowledge of the various effects of electric current.	No change	2	UEENEEE104A MEM10025	Solve problems in d.c. circuits Undertake a capstone assessment	No effect
3	Demonstrate a knowledge of resistivity and resistors.	No change	3	UEENEEE104A	Solve problems in d.c. circuits	No effect
4	Demonstrate a knowledge of the principles of various sources of electromotive force (e.m.f.).	limited to principles only	4	UEENEEE104A	Solve problems in d.c. circuits	No effect
5 CRITICAL	Explain the operation of a simple practical circuit. Determine the resistance, voltage, current and power in any part of a DC circuit using theory and actual measurement methods.	Combined with 6 expanded	5 + 6	UEENEEE104A MEM10025	Solve problems in d.c. circuits Undertake a capstone assessment	No effect
6	Demonstrate a knowledge of the theory and application of capacitors and inductors and their effects.	Combined with 10 expanded	7+10	UEENEEE104A UEENEEG102A	Solve problems in d.c. circuits Solve problems in low voltage a.c. circuits	No effect – Expanded evidence would normally be covered DC and AC principles
7	Demonstrate a knowledge of permanent and electromagnetic	Combined with 9 expanded	8+9	UEENEEE104A	Solve problems in d.c. circuits	No effect – Expanded evidence would normally be

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	induction and application.			UEENEEG102A	Solve problems in low voltage a.c. circuits	covered by magnetic theory and application
8 CRITICAL	Demonstrate a knowledge of alternating voltage & current generation, phase relationships, energy in an AC circuit, and actual measurement methods.	No change	11	UEENEEG102A MEM10025	Solve problems in low voltage a.c. circuits Undertake a capstone assessment	No effect
9	Introduction to star and delta three phase AC systems and the reason why three phase is used.	Minor edits	12	UEENEEG102A	Solve problems in low voltage a.c. circuits	No effect
10 CRITICAL	Demonstrate an understanding of the fundamental safety principles of AS/NZS 3000: Part 1. Knowledge of the hierarchy of standards. Normative / informative text.	Minor edits	13	MEM13017 MEM10025	Apply safety practices, procedures and compliance standards associated with licensed electrical work Undertake a capstone assessment	No effect
11	Demonstrate a knowledge of power factor, power factor improvement principles and power measurement techniques in AC circuits in single and multiphase systems.	Minor edits	14	UEENEEG102A	Solve problems in low voltage a.c. circuits	No effect
12	Demonstrate the	Combined	15+17	MEM18100	Fault-find, test	Additional

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	rationale and operating principles and characteristics of three phase induction motors and generators. Describe AS/NZ 3000 requirements and knowledge of local Supply Authority requirements for three phase motor installations and starters.	with 17 expanded			and rectify AC machines and circuits	component 'including variable speed drives' covered' already covered in both Performance and Knowledge Evidence of MEM18100 – therefore no effect
13 CRITICAL	Demonstrate a knowledge of methods of electric motor selection, starting, connection and protection.	Minor edits	16	MEM18100 MEM10025	Fault-find, test and rectify AC machines and circuits Undertake a capstone assessment	No effect
14	Demonstrate knowledge of possible causes of malfunction of three phase induction motors and demonstrate the tests required for diagnosing faults	Minor edits	18	MEM18100	Fault-find, test and rectify AC machines and circuits	As part of the normal fault finding process the ability to read and interpret wiring diagrams are an integral part of any fault diagnosis – therefore no effect
15	Describe the operating principles, characteristics, and suitability of typical control methods for single-phase motors and their key components.	Combined with 20 expanded	19+20	MEM18100	Fault-find, test and rectify AC machines and circuits	Evidence indicated would normally be covered in the underpinning knowledge and skills for single phase motors – therefore no effect
16	Demonstrate and	Minor edits	21	MEM10019	Select circuit	Knowledge of

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
CRITICAL	apply in practice the requirements of AS/NZ 3000 in relation to earthing arrangements and fault loop impedance calculations. Knowledge of alternate earthing systems when required by local Regulatory Authorities.			MEM10025	protection devices by type and rating, fit to switchboards and install earthing Undertake a capstone assessment	alternate earthing systems when required by local Regulatory Authorities included as part of the Knowledge Evidence of MEM10019 and MEM10025
17 CRITICAL	Demonstrate a comprehensive knowledge and understanding of the MEN system and its application, including on sub-installations. Demonstrate how to test an MEN system.	Minor edits	22	MEM10019 MEM10025	Select circuit protection devices by type and rating, fit to switchboards and install earthing Undertake a capstone assessment	Demonstrate how to test an MEM system is already a requirement of MEM10019 – therefore no effect
18	Describe the basic construction, principles of operation, and typical applications of the main types of transformers.	Combined with 24 and 25 expanded	23+24 + 25	MEM18102	Fault-find, test and rectify single and three-phase transformers	Applications already covered by MEM18102 – therefore no effect
19 CRITICAL	List the key safety issues of various types of transformers, including AS/NZS3000 requirements.	Typical applications moved to EPC18	26	MEM18102 MEM10025	Fault-find, test and rectify single and three-phase transformers Undertake a capstone assessment	No effect

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
20 CRITICAL	Demonstrate a knowledge of SELV and PELV systems, their application and testing in accordance with AS/NZS 3000	Minor edits	28	MEM10019 MEM10025	Select circuit protection devices by type and rating, fit to switchboards and install earthing Undertake a capstone assessment	Knowledge of earth leakage protection systems and their application whilst removed by this EPC is still covered by EPC 23 and included in MEM10019 – therefore no effect
21 CRITICAL	Demonstrate the ability to select cables for mains and submains using AS/NZS 3000 and AS/NZS 3008.1 based on current carrying capacity, short circuit capacity, maximum demand and voltage drop, for single phase and three phase installations including multiple installations.	Minor edits	29	MEM10018 MEM10025	Select cable types and sizes to suit loads and electrical installation environment Undertake a capstone assessment	Fault loop impedance is covered in the underpinning knowledge and skills in MEM10018 – therefore no effect
22 CRITICAL	Demonstrate the ability to select cables for final subcircuits using AS/NZS 3000 and AS/NZS 3008.1 based on current carrying capacity, short circuit capability, maximum demand, earth loop impedance and voltage drop.	No change	30	MEM10018 MEM10025	Select cable types and sizes to suit loads and electrical installation environment Undertake a capstone assessment	No effect
23	Describe and apply the control and	Combined with 27	31+27	MEM10019	Select circuit protection	Knowledge of minimum fault

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
CRITICAL	protection requirements for installations and equipment. Demonstrate the ability to select suitable equipment and switchgear for a particular installation or part of an installation using AS/NZS3000	expanded		MEM10025	devices by type and rating, fit to switchboards and install earthing Undertake a capstone assessment	levels specified by electricity network operator added to the Knowledge Evidence of MEM10019 and MEM10025
24 CRITICAL	Demonstrate an understanding of the AS/NZS 3000 and regulatory requirements for the location of switchboards and arrangement of switchboard equipment in installations. Methods for determining prospective fault current. Switchboard form types.	Now critical expanded	32	MEM10019 MEM10020	Select circuit protection devices by type and rating, fit to switchboards and install earthing Install low voltage cabling and fit-off accessories, appliances and equipment	Method of determining prospective fault current added to both Performance and Knowledge Evidence of MEM10019 Switchboard form types is covered by Knowledge Evidence of MEM10019 EPC included in MEM10025 Knowledge Evidence as EPC now Critical
25 CRITICAL	Demonstrate an understanding of the AS/NZS 3000 and regulatory requirements for the installation of electrical equipment in damp situations and wet areas. IP rating of electrical equipment.	Minor edits	33	MEM10020 MEM10025	Install low voltage cabling and fit-off accessories, appliances and equipment Undertake a capstone assessment	IP rating of electrical equipment is covered under Knowledge Evidence of MEM10020 – therefore no effect

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
26 CRITICAL	Demonstrate the appropriate methods for the installation, modification and testing of electrical installations and equipment for construction and demolition sites, complying with AS/NZS 3012 and applicable workplace safety legislation. Need for calibration of instruments.	Minor edits	34	MEM10019	Select circuit protection devices by type and rating, fit to switchboards and install earthing	Need for calibration of instruments added to Knowledge Evidence of MEM10021 and MEM10025 as EPC is Critical
				MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	
				MEM10021	Inspect, test and verify electrical installations	
				MEM10025	Undertake a capstone assessment	
27 CRITICAL	Demonstrate knowledge of AS/NZS 3000 and local regulatory requirements for the installation of aerial conductors and underground wiring. Including specialist cables.	Combined with 49 expanded	35+49	MEM10016	Terminate and test electrical wiring and accessories	Specialist cables (old EPC 49) added to the Performance and Knowledge Evidence of MEM10025
				MEM10018	Select cable types and sizes to suit loads and electrical installation environment	
				MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	
				MEM10025	Undertake a capstone assessment	

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
28 CRITICAL	Demonstrate a knowledge of the AS/NZS 3000 requirements for electrical installations in hazardous areas and an awareness of the standards to which it refers	Minor edits	36	MEM10020 MEM10025	Install low voltage cabling and fit-off accessories, appliances and equipment Undertake a capstone assessment	Knowledge of additional training required to work competently with electrical equipment for hazardous areas added to the Knowledge Evidence of both MEM10020 and MEM10025
29	Knowledge of AS/NZS 3000 requirements for safety services and issues relevant to HV installations. Standards referenced for electrical installations related to transportable structures and vehicles, shows and carnivals, patient areas, marinas and boats, and construction/demolition sites.	Minor edits	37	MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	Knowledge Evidence of MEM10020 covers requirements for special installations – therefore no effect
30 CRITICAL	Demonstrate to AS/NZS 3000 and AS/NZS 3017 standards the electrical checks and tests required to ensure electrical installations are safe, reporting of test results typically required to satisfy regulatory requirements.	Combined with 39 and 46	38+39 + 46	MEM10021 MEM10025	Inspect, test and verify electrical installations Undertake a capstone assessment	Knowledge of reporting of test results added to the Knowledge Evidence of MEM10025 now that it has been included as part of this Critical EPC
31	Demonstrate the	Minor edits	40	MEM13017	Apply safety	Knowledge

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
CRITICAL	knowledge and skill to perform effective safe isolation of any equipment, including switch and lock off, circuit isolation, equipment testing and tag out procedures, including capacitor banks.			MEM10025	practices, procedures and compliance standards associated with licensed electrical work Undertake a capstone assessment	and skill associated with effective safe isolation of capacitor banks added to both the Performance and Knowledge Evidence of MEM13017 and MEM10025
32	Describe the construction, specifications, colour coding and application of various types of cords and cables.	No change	41	MEM10016	Terminate and test electrical wiring and accessories	No effect
33	Demonstrate the skill to prepare and terminate cords and cables.	No change	42	MEM10016	Terminate and test electrical wiring and accessories	No effect
34	Demonstrate the knowledge and skills for selection and attachment of electrical accessories, using appropriate fixing devices, tools and methods.	Minor edits	43	MEM10016	Terminate and test electrical wiring and accessories	Performance and Knowledge Evidence of MEM10016 includes EPC component and Evidence
35 CRITICAL	Demonstrate the knowledge and skills to install and terminate a variety of electrical cables in a wide range of applications	Minor edits	44	MEM10016 MEM10020	Terminate and test electrical wiring and accessories Install low voltage cabling and	Installation and termination requirements across a variety of cables is already

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	(including final subcircuits) to AS/NZS3000			MEM10025	fit-off accessories, appliances and equipment Undertake a capstone assessment	covered in MEM10016 and MEM10020 – therefore no effect.
36	Demonstrate the knowledge and skills for the installation of wiring support systems.	No change	45	MEM10020	Install low voltage cabling and fit-off accessories, appliances and equipment	No effect
37 CRITICAL	Demonstrate knowledge and skills to install final subcircuit wiring into switchboards and connect to switchboard equipment in accordance with AS/NZS 3000 and local supply authority requirements.	Minor edits	47	MEM10020 MEM10025	Install low voltage cabling and fit-off accessories, appliances and equipment Undertake a capstone assessment	Performance evidence of MEM10020 covers the demonstration of knowledge and skills to install – therefore no effect
38 CRITICAL	Connect consumers mains to an installation, in accordance with AS/NZS 3000 and local supply authority requirements.	Minor edits	48	MEM10020 MEM10025	Install low voltage cabling and fit-off accessories, appliances and equipment Undertake a capstone assessment	Minor edits are covered by MEM10020 – therefore no effect
39	Determine and apply AS/NZS 3000 requirements for the installing, terminating and testing of	No change	50	MEM10020	Install low voltage cabling and fit-off accessories, appliances and	No effect

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	catenary supported cables, pendant-type socket outlets and trailing cables.				equipment	
40 CRITICAL	Demonstrate ability to read, sketch and interpret electrical diagrams and specifications	Minor edits	51	UEENEEE107A MEM10025	Use drawings, diagrams, schedules, standards, codes and specifications Undertake a capstone assessment	The addition of specifications is already covered by UEENEEE107A – therefore no effect
41	Demonstrate the knowledge and skills to design and connect switching circuits, as per AS/NZS 3000.	Minor edits	52	MEM10023	Design and connect control switching of circuits for building services and industrial equipment	Performance evidence of MEM10023 covers the demonstration of knowledge and skills to design etc., – therefore no effect
42 CRITICAL	Describe basic statutory occupational safety and health responsibilities for employers and employees, including supervisory requirements and employees' own "duty of care". Asbestos awareness and reporting. Hazardous gases.	Edits to add gases and asbestos	53	UEENEEE101A MEM10025	Undertake a capstone assessment	
43 CRITICAL	Demonstrate understanding of the 281 requirement for personal	Minor edits	54	MEM13017	Apply safety practices, procedures and compliance standards associated	Selection and use of fire extinguishers is covered in the Knowledge Evidence of MEM13017 –

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	safety in the workplace and application of safety practices.			MEM10025	with licensed electrical work Undertake a capstone assessment	therefore no effect
44 CRITICAL	Describe a workplace safety check, identify potential workplace hazards and suggest measures for accident prevention.	Now critical	55	UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	EPC included in MEM10025 in Knowledge Evidence as EPC now Critical
45	Demonstrate the knowledge and practices that are essential for working safely with electrical equipment and tools, for safe manual handling, working safely at heights and in confined spaces. Knowledge of testing and tagging procedures to AS/NZS 3760.	Minor edits	56	MEM13015 MEM13017	Work safely and effectively in manufacturing and engineering Apply safety practices, procedures and compliance standards associated with licensed electrical work	The Performance and Knowledge Evidence of MEM13017 strengthened to include working safely at heights and in confined spaces, safe use of ladders and elevated platforms
46 CRITICAL	Describe the method of rescuing a person in contact with live electrical conductors or equipment.	No change	57	UEENEEE101A MEM10025	Apply Occupational Health and Safety regulations, codes and practices in the workplace Undertake a capstone assessment	No effect

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
47 CRITICAL	Describe the emergency first aid requirements for an electric shock victim and demonstrate the knowledge and application skill of CPR.	No change	58	UEENEEE101A MEM10025	Apply Occupational Health and Safety regulations, codes and practices in the workplace Undertake a capstone assessment	No effect
48 CRITICAL	Demonstrate knowledge and understanding of the significant dangers of High Voltage equipment and distribution systems.	No change	59	MEM18102 MEM10025	Fault-find, test and rectify single and three-phase transformers Undertake a capstone assessment	No effect
49	Describe the types of potential operational situations that may be encountered in various areas of industry and the type of assistance that may be needed from more experienced industry personnel.	Combined with 61 expanded	60+61	MEM10022	Commission and decommission high and low voltage equipment or installations	Knowledge Evidence of MEM10022 includes the evidence aspects of this EPC – therefore no effect
50 CRITICAL	Describe methods of commissioning and/or decommissioning electrical equipment or an installation, using a systems approach.	Minor edits	62	MEM10022 MEM10025	Commission and decommission high and low voltage equipment or installations Undertake a capstone assessment	MEM10022 covers commissioning and/or decommissioning of electrical equipment or an installation – therefore no effect
51	Describe the functioning of	Minor edits	63	MEM10023	Design and connect	Electronic logic controls

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	basic electronic circuits used in common electrical power circuit applications, including electronic logic controls, related hazards and safety requirements.				control switching of circuits for building services and industrial equipment	is covered in both the Performance and Knowledge Evidence of MEM10023 – therefore no effect
52	Describe basic control techniques for DC loads. Includes control and diagnostic methods for simple DC motor control circuits and applications.	Minor edits	64	UEENEEG101A	Solve problems in electromagnetic devices and related circuits	UEENEEG101A covers the evidence of this EPC – therefore no effect
53	Demonstrate an understanding of the basic operation and energy efficiency of various types of luminaires, and the purpose of components and ancillary equipment, including related hazards and their safety requirements.	Expanded to include NCC & NZ building code	65	MEM10024	Install and troubleshoot luminaires and ancillary equipment	The Range of Conditions of MEM10024 now includes NCC and NZ building code
54 CRITICAL	Demonstrate the knowledge and skills for diagnosing and rectifying faults in electrical apparatus and associated circuits.	No change	66	MEM18103 MEM10025	Fault-find, test and rectify electrical circuits and equipment Undertake a capstone assessment	No effect
55	Demonstrate knowledge and application of electricity generation systems and electricity	New	New	MEM13017	Apply safety practices, procedures and compliance standards associated	The requirements of this EPC have been added to the Performance and Knowledge

New EPC #	EPC Title	Tracking/ Notes	Old EPC #	Unit code/s where old EPC	Unit title	Comments/ Gap
	converters and the requirements of AS/NZS 3000 Wiring Rules for stand-alone and grid connected systems. Basic knowledge of battery storage systems and uninterruptible power supplies.				with licensed electrical work	evidence of MEM13017.

The over-arching objective is that the training for a prospective electrician must deliver at least the 'essential performance capability' requirements, and that the capstone assessment will confirm that the most critical of these, highlighted in the table, has been attained by the applicant.

Appendix 5: AQF certificate level and qualification descriptors

Certificate I AQF descriptor

Purpose

The Certificate I qualifies individuals with basic functional knowledge and skills to undertake work, further learning and community involvement.

Knowledge

Graduates of a Certificate I will have basic fundamental knowledge and understanding in a narrow area of work and learning.

Skills

Graduates of a Certificate I will have:

- Basic skills to participate in everyday life and further learning
- Cognitive and communication skills to receive, pass on and recall information in a narrow range of areas
- Technical skills involving the use of tools appropriate to the activity and use of basic communication technologies.

Application

Graduates of a Certificate I will demonstrate the application of knowledge and skills:

- With some autonomy in defined contexts and within established parameters
- In contexts that may include preparation for further learning, life activities and/or a variety of initial routine and predictable work-related activities including participation in a team or work group.

Volume of learning

The volume of learning Certificate II is typically 0.5–1 year.

Certificate I qualification descriptions

MEM10119 Certificate I in Engineering

The MEM10119 Certificate I in Engineering qualification provides an entry-level outcome to assist workers entering employment as engineering/manufacturing employees in metal, engineering, manufacturing and associated industries.

The units selected must provide practical skills that are relevant and useful to the area in which the person hopes to gain employment or is currently working. The group of units should incorporate both the technical and employability skills needed for work.

Achievement of the MEM10119 Certificate I in Engineering will provide the qualified person with a set of competencies that collectively open pathways into employment and/or further study in the engineering/manufacturing industry.

MEM10222 Certificate I in Boating Services

The MEM10222 Certificate I in Boating Services qualification provides an entry-level outcome to assist workers entering employment within the boating services industry.

Achievement of the MEM10222 Certificate I in Boating Services qualification will provide the qualified person with a set of competencies that ensure the ability to work safely on marine craft and follow work procedures to maintain the marine environment.

Certificate II AQF descriptor

Purpose

The Certificate II qualifies individuals to undertake mainly routine work and as a pathway to further learning.

Knowledge

Graduates of a Certificate II will have basic factual, technical and procedural knowledge in a defined area of work and learning.

Skills

Graduates of a Certificate II will have:

- Cognitive skills to access, record and act on a defined range of information from a range of sources
- Cognitive and communication skills to apply and communicate known solutions to a limited range of predictable problems
- Technical skills to use a limited range of equipment to complete tasks involving known routines and procedures with a limited range of options.

Application

Graduates of a Certificate II will demonstrate the application of knowledge and skills with some accountability for the quality of own outcomes and some responsibility for own outputs in work and learning. Work involves limited autonomy and judgement in the completion of own defined and routine tasks in known and stable contexts and in collaboration with others in a team environment.

Volume of learning

The volume of learning of a Certificate II is typically 0.5–1 year.

Certificate II qualifications descriptions

MEM20219 Certificate II in Engineering – Production Technology

The MEM20219 Certificate II in Engineering – Production Technology qualification provides the competencies required by engineering/manufacturing employees in metal, engineering, manufacturing and associated industries employed carrying out a wide range of work, including production, casting and moulding, machine processing, surface finishing, stores, warehousing and commissioning/decommissioning split air conditioning systems.

MEM20322 Certificate II in Boating Services

The MEM20322 Certificate II in Boating Services qualification provides the competencies required of an employee working within the boating services industry and includes the ability to work safely on marine craft and follow work procedures to maintain the marine environment.

The skills associated with this qualification are intended to apply to a wide range of boating services work including the general maintenance of structures and hulls.

MEM20422 Certificate II in Engineering Pathways

The MEM20422 Certificate II in Engineering Pathways qualification is intended for the learner to develop trade-like skills. It is not intended to develop trade-level skills. The focus is on using engineering tools and equipment to produce or modify objects. This needs to be done in a safe manner for each learner including people near the learner.

This qualification applies to a learning and assessment environment where access to structured on-the-job learning in a workplace may not be available. This qualification is intended for simulated work environments.

This qualification is intended for people interested in exposure to an engineering or related working environment with a view to entering into employment in the area. It will equip graduates with knowledge and skills that will enhance their prospects of employment in an engineering or related working environment.

This qualification delivers broad-based underpinning skills and knowledge in a range of engineering and manufacturing tasks which will enhance the graduates' entry-level employment prospects for apprenticeships, traineeships or general employment in an engineering-related workplace.

Achievement of competence in units MEM13015 Work safely and effectively in manufacturing and engineering, MSMSUP106 Work in a team, MEM16006 Organise and communicate information, MEM16008 Interact with computing technology, MSMENV272 Participate in environmentally sustainable work practices, MEM11011 Undertake manual handling, MEM18001 Use hand tools and MEM18002 Use power tools/hand held operations will provide credit towards a range of manufacturing and engineering trade and production qualifications.

Achievement of competence in all the other units will provide advanced progress towards reaching competence in units contained in other metal and engineering qualifications.

Registered Training Organisations (RTOs) offering this qualification will need to have access to basic engineering equipment and facilities, as well as sufficient open plan workshop facilities where long term projects, perhaps spanning the duration of learning, can be completed. The teachers/trainers must be experienced with the knowledge and trade skills to successfully facilitate and motivate skills development in the learners. Trainers and assessors must meet the National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) trainer and assessor requirements for training and assessment, vocational competency and professional development.

Certificate III AQF descriptor

Purpose

The Certificate III qualifies individuals who apply a broad range of knowledge and skills in varied contexts to undertake skilled work and as a pathway for further learning.

Knowledge

Graduates of a Certificate III will have factual, technical, procedural and theoretical knowledge in an area of work and learning.

Skills

Graduates of a Certificate III will have:

- Cognitive, technical and communication skills to interpret and act on available information
- Cognitive and communication skills to apply and communicate known solutions to a variety of predictable problems and to deal with unforeseen contingencies using known solutions
- Technical and communication skills to provide technical information to a variety of specialist and non-specialist audiences
- Technical skills to undertake routine and some non-routine tasks in a range of skilled operations.

Application

Graduates of a Certificate III will demonstrate the application of knowledge and skills with discretion and judgement in the selection of equipment, services or contingency measures, and skills to adapt and transfer skills and knowledge within known routines, methods, procedures and time constraints.

Work is in the context of taking responsibility for own outputs in work and learning, including participation in teams and taking limited responsibility for the output of others within established parameters.

Volume of learning

The volume of learning of a Certificate IV is typically 0.5–2 years. Up to 4 years may be required to achieve the learning outcomes through a program of indentured training/employment.

Certificate III qualifications descriptions

MEM30119 Certificate III in Engineering – Production Systems

The MEM30119 Certificate III in Engineering – Production Systems qualification provides the competencies required by engineering/manufacturing employees in metal, engineering, manufacturing and associated industries employed carrying out a wide range of work, including production, casting and moulding, machine processing, surface finishing, stores and warehousing.

MEM30219 Certificate III in Engineering – Mechanical Trade

The MEM30219 Certificate III in Engineering – Mechanical Trade qualification provides a trade-level outcome of an engineering tradesperson – mechanical carrying out a wide range of mechanical work, including undertaking fitting, assembly, manufacture, installation, modification, testing, maintenance and service of mechanical equipment, machinery and the use of machine tools.

MEM31925 Certificate III in Engineering – Fabrication Trade

The MEM31925 Certificate III in Engineering – Fabrication Trade qualification provides a trade-level outcome of an engineering tradesperson – fabrication carrying out a wide range of fabrication work, including undertaking metal fabrication, structural steel erection, sheetmetal

work and welding. Welding would typically conform to the applicable Australian/International Standards or equivalent.

MEM30422 Certificate III in Engineering – Electronic Trade

The MEM30422 Certificate III in Engineering – Electronic Trade qualification provides a trade-level outcome of an engineering tradesperson – electronics carrying out a wide range of electronic work including installing, maintaining and repairing electronic equipment and systems including telecommunication, radio and television, communication and information processing.

MEM30522 Certificate III in Engineering – Technical

The MEM30522 Certificate III in Engineering – Technical qualification provides a trade-level outcome of an engineering tradesperson – technical carrying out a wide range of engineering work including undertaking production planning, scheduling, work studies, estimating material requirements, inspection, quality control, laboratory procedures, supplier evaluation, non-destructive testing, metallurgy, drafting, assisting in design and development work of product and processes and other technical tasks.

MEM30619 Certificate III in Jewellery Manufacture

The MEM30619 Certificate III in Jewellery Manufacture qualification provides a trade-level outcome of a jewellery manufacture tradesperson carrying out a wide range of jewellery manufacture work, including undertaking designing and making jewellery and small objects using a wide range of materials including metals, stones, woods, plastics and fibres.

MEM30719 Certificate III in Marine Craft Construction

The MEM30719 Certificate III in Marine Craft Construction qualification provides a trade-level outcome of a marine craft construction tradesperson carrying out a wide range of marine craft construction work, including undertaking manufacture and repair of boats in fibre-reinforced plastics, timber and metal and marine/boatyard operations, fitting out of internal and external components of vessels and installation of engineering drive systems.

MEM30819 Certificate III in Locksmithing

The MEM30819 Certificate III in Locksmithing qualification provides a trade-level outcome of a locksmithing tradesperson carrying out a wide range of locksmithing work, including undertaking the repair, manufacture and installation of locking and security systems in domestic, automotive and industrial applications.

MEM30919 Certificate III in Boating Services

The MEM30919 Certificate III in Boating Services qualification provides the competencies required by an employee who works within the boating services industry carrying out a wide range of boating services work, including the general maintenance of structures, hulls, engines and on-board mechanical work and includes maintaining the marine environment.

MEM31019 Certificate III in Watch and Clock Service and Repair

The MEM31019 Certificate III in Watch and Clock Service and Repair qualification provides a trade-level outcome of a watch and clock service and repair tradesperson carrying out a wide range of watch and clock service and repair work, including undertaking the disassembly, assembly, installation, adjustment, replacement, modification, testing, fault-finding, and

maintenance and service of watch and clock cases, mechanisms and other relevant components.

MEM31119 Certificate III in Engineering – Composites Trade

The MEM31119 Certificate III in Engineering – Composites Trade qualification provides a trade-level outcome of a composites tradesperson carrying out a wide range of composites work, including laying up composites, selecting, handling, using and storing materials and components, undertaking repairs and modifications, adjusting resin chemicals and selecting and using joining techniques.

MEM31219 Certificate III in Engineering – Industrial Electrician

The MEM31219 Certificate III in Engineering – Industrial Electrician provides a trade-level outcome of an industrial electrician required for employment working within the metal, engineering, manufacturing and associated industries where engineering tradesperson – industrial electricians work. This qualification provides competencies in the ability to select, set up and install, test, fault-find, repair and maintain electrical systems and equipment in buildings and industrial environments including oil/gas installations, mine sites, processing plants and similar operations. The qualification covers the Essential Performance Capabilities (EPCs) as required by electrical regulators and includes a capstone assessment.

MEM31322 Certificate III in Refrigeration and Air Conditioning

The MEM31322 Certificate III in Refrigeration and Air Conditioning qualification provides a trade-level outcome of a heating, ventilation, air conditioning and refrigeration (HVACR) tradesperson carrying out a wide range of work, including assembling, installing, maintaining and repairing industrial, commercial and domestic air conditioning and refrigeration systems and equipment.

MEM31419 Certificate III in Engineering – Fixed and Mobile Plant Mechanic

The MEM31419 Certificate III in Engineering – Fixed and Mobile Plant Mechanic qualification provides a trade-level outcome of an engineering tradesperson – mechanical specialising in diesel fitting and plant mechanics and carrying out a wide range of work, including manufacturing, assembly and commissioning of mobile and stationary plant, servicing, diagnosis and rectification of faults, condition monitoring, and preventative maintenance.

MEM31519 Certificate III in Engineering – Toolmaking Trade

The MEM31519 Certificate III in Engineering – Toolmaking Trade qualification provides a trade-level outcome of an engineering tradesperson – toolmaker carrying out a wide range of work, including the manufacture, modification and maintenance of tooling.

MEM31622 Certificate III in Engineering – Patternmaking Trade

The MEM31622 Certificate III in Engineering – Patternmaking Trade qualification provides a trade-level outcome of an engineering tradesperson – casting and moulding carrying out a wide range of patternmaking work including constructing full-size engineering model out of timber. Patternmakers also produce visual models, experimental models and models for the manufacture of prototype developmental products.

MEM31719 Certificate III in Engineering – Casting and Moulding Trade

The MEM31719 Certificate III in Engineering – Casting and Moulding Trade qualification provides a trade-level outcome of an engineering tradesperson – casting and moulding carrying out a wide range of work, including producing sand moulds by hand or using moulding machines, pouring and trimming castings and operating and monitoring melting furnaces.

MEM31822 Certificate III in Engineering – Textile Mechanic

The MEM31822 Certificate III in Engineering – Textile Mechanic qualification provides a trade-level outcome of an engineering tradesperson – casting and moulding carrying out a wide range of textile mechanic trade work, including setting up, adjusting and maintaining carding, footwear manufacture, knitting, sewing, spinning, tufting, or weaving machinery.

Certificate IV AQF descriptor

Purpose

The Certificate IV qualifies individuals who apply a broad range of specialised knowledge and skills in varied contexts to undertake skilled work and as a pathway for further learning.

Knowledge

Graduates of a Certificate IV will have broad factual, technical and theoretical knowledge in a specialised field of work and learning.

Skills

Graduates of a Certificate IV will have:

- Cognitive skills to identify, analyse, compare and act on information from a range of sources
- Cognitive, technical and communication skills to apply and communicate technical solutions of a non-routine or contingency nature to a defined range of predictable and unpredictable problems
- Specialist technical skills to complete routine and non-routine tasks and functions
- Communication skills to guide activities and provide technical advice in the area of work and learning

Application

Graduates of a Certificate IV will demonstrate the application of knowledge and skills to specialised tasks or functions in known or changing contexts with responsibility for own functions and outputs and may have limited responsibility for organisation and quantity and quality of the output of others within limited parameters.

Volume of learning

The volume of learning of a Certificate IV is typically 0.5–2 years. There may be variations between short duration specialist qualifications that build on knowledge and skills already acquired and longer duration qualifications that are designed as entry level requirements for work.

Certificate IV qualification descriptions

MEM40119 Certificate IV in Engineering

The *MEM40119 Certificate IV in Engineering* qualification provides the competencies required by a higher Engineering Tradesperson carrying out a wide range of engineering work undertaken in the fields of refrigeration and air conditioning, casting and moulding, computer numerically controlled (CNC) programming, fluid power, plant mechanics, heavy fabrication, instrumentation, maintenance, marine electronics, mechatronics, patternmaking, robotics, toolmaking, welding and watch and clock services and repair as well as post trade work.

MEM40222 Certificate IV in Boating Services

MEM Manufacturing and Engineering Training Package

The MEM40222 Certificate IV in Boating Services qualification provides the advanced skills and knowledge required of an employee who works within boating services industry. The advanced skills associated with this qualification are intended to apply to a wide range of boating services work including the general maintenance of structures, hulls, engines and on board mechanical work. It also includes maintaining the marine environment.

MEM40322 Certificate IV in Advanced Jewellery Manufacture

The MEM40322 Certificate IV in Advanced Jewellery Manufacture qualification provides the advanced jewellery manufacturing skills and knowledge required by a tradesperson within a jewellery industry, applying to a wide range of jewellery manufacture work including undertaking designing and making jewellery and small objects using a wide range of materials including metals, stones, woods, plastics and fibres.

MEM40422 Certificate IV in Engineering Drafting

The MEM40422 Certificate IV in Engineering Drafting qualification provides skills and knowledge required of a detail draftsman producing specialist engineering drawings within metal, engineering, manufacturing and associated industries.

The skills associated with this qualification are intended to apply to the production of engineering detail drawings as applied in manufacturing, engineering and related industry sectors and is intended to be packaged to meet the specific needs of drafting in mechanical and machine construction and maintenance, steel fabrication, other fabrication services and assembly, mechanical services, electrical services, fluid power, piping assembly and related industrial applications.

Diploma AQF qualification descriptor

Purpose

The Diploma qualifies individuals who apply integrated technical and theoretical concepts in a broad range of contexts to undertake advanced skilled or paraprofessional work and as a pathway for further learning.

Knowledge

Graduates of a Diploma will have technical and theoretical knowledge and concepts, with depth in some areas within a field of work and learning.

Skills

Graduates of a Diploma will have:

- Cognitive and communication skills to identify, analyse, synthesise and act on information from a range of sources
- Cognitive, technical and communication skills to analyse, plan, design and evaluate approaches to unpredictable problems and/or management requirements
- Specialist technical and creative skills to express ideas and perspectives
- Communication skills to transfer knowledge and specialised skills to others and demonstrate understanding of knowledge.

Application

Graduates of a Diploma will demonstrate the application of knowledge and skills:

- with depth in some areas of specialisation, in known or changing contexts and skills
- to transfer and apply theoretical concepts and/or technical and/or creative skills in a range of situations
- with personal responsibility and autonomy in performing complex technical operations with responsibility for own outputs in relation to broad parameters for quantity and quality
- with initiative and judgement to organise the work of self and others and plan, coordinate and evaluate the work of teams within broad but generally well-defined parameters.

Volume of learning

The volume of learning of a Diploma is typically 1 – 2 years

Diploma qualification descriptions

MEM50119 Diploma of Engineering – Advanced Trade

The MEM50119 Diploma of Engineering – Advanced Trade qualification provides the competencies required by an advanced engineering tradesperson – Level II within the metal, engineering, manufacturing and associated industries or at equivalent levels in other industries in which engineering tradespeople work. The qualification has been specifically developed to meet the needs of apprentices in an engineering trade who choose to study at a higher level during their apprenticeship in the above trade or for people who are existing engineering tradespeople.

MEM50222 Diploma of Engineering – Technical

The MEM50222 Diploma of Engineering – Technical qualification provides the competencies required of an Engineering Technician within metal, engineering, manufacturing and associated industries.

The skills associated with this qualification are intended to apply to a wide range of technical engineering discipline areas including mechanical, mechatronics, manufacturing, maintenance, and heating ventilation air-conditioning, engineering drafting and refrigeration and air conditioning in manufacturing, engineering and related industries. The qualification provides the opportunity to develop theoretical knowledge and technical skills in either a specific discipline area or across a broad field of technical work and learning.

MEM50322 Diploma of Jewellery and Object Design

The MEM50322 Diploma of Jewellery and Object Design qualification provides the skills and knowledge required to apply design processes and technical production skills to the design and manufacture of custom-made jewellery and objects.

It is typically used to develop skills and knowledge in jewellery enterprises. Skills gained from the qualification may be applied to specialist jewellery and object design briefs, including heritage jewellery, theatre and film commissions, exhibitions and churchware, as well one-off individual client briefs.

MEM50425 Diploma of Engineering – Non-Destructive Testing

This qualification provides the skills and knowledge to work as a non-destructive testing (NDT) technician in manufacturing, engineering and associated industries. The qualification covers theory and practice for major NDT test techniques, materials skills and knowledge and general support skills required to work as a NDT technician.

Completion of this qualification may contribute to recognition at Level 2 or Level 3 against Australian NDT technical standards and NDT industry accreditation schemes.

MEM50522 Diploma of Engineering - Materials

This qualification provides technical knowledge and skills related to related to ferrous and non-ferrous metals, polymers, composites, and ceramics and their application in manufacturing and engineering processes.

Completion of this qualification will enable a person to work in a variety of roles requiring industrial materials knowledge and skills, including working as part of a multidisciplinary design team, supervising the processing of materials, providing expert materials supervision to materials intensive manufacturing processes, and technical sales roles requiring specialist materials knowledge.

MEM50622 Diploma of Engineering – Prototyping

This qualification provides the skills and knowledge to work as a technician either individually or as a member of a team supporting prototyping in large engineering or manufacturing projects. The qualification covers skills and knowledge in engineering materials, engineering systems, design and planning processes, and mechanical, mechatronic, and production engineering.

MEM50722 Diploma of Engineering – Planning

This qualification provides knowledge and skills in technical planning for manufacturing and engineering operations, including planning, scheduling and organising materials supply, equipment utilisation, logistics, utilities and services for manufacturing and engineering. Completion of this qualification will enable a person to work in a variety of technical supervisory and managerial roles requiring manufacturing and engineering related planning skills and knowledge including operations management, production planning, estimating, scheduling, and logistics support either individually or as part of a multi-disciplinary team.

MEM50822 Diploma of Applied Technologies

This qualification provides the skill and knowledge required to apply modern cloud and locally based digitisation strategies to manufacturing and engineering workplaces and enterprises in their supply chain. The qualification includes strategies for networking of machines and sites, automation, digital data collection and processing, and other systems and techniques required to implement the cyber-physical systems and technologies often referred to under the general terms of Industry 4.0 and Industry 5.0.

The qualification includes Industry 4.0 specific units of competency and units supplying supporting skills and knowledge. The qualification is suitable for both existing employees and new entrants to manufacturing and engineering organisations or supporting service organisations.

Completion of this qualification will enable a person to work as in a variety of Industry 4.0 related roles including as a lead or 'champion' for Industry 4.0 implementation in an organisation or in more direct roles implementing automation, networking, data handling and other digital systems in an enterprise individually or as part of a multidisciplinary team.

Advanced Diploma AQF qualification descriptor

Purpose

The Advanced Diploma qualifies individuals who apply specialised knowledge in a range of contexts to undertake advanced skilled or paraprofessional work and as a pathway for further learning.

Knowledge

Graduates of an Advanced Diploma will have specialised and integrated technical and theoretical knowledge with depth within one or more fields of work and learning.

Skills

Graduates of a Diploma will have:

- cognitive and communication skills to identify, analyse, synthesise and act on information from a range of sources
- cognitive and communication skills to transfer knowledge and skills to others and to demonstrate understanding of specialised knowledge with depth in some areas
- cognitive and communication skills to formulate responses to complex problems
- wide-ranging specialised technical, creative or conceptual skills to express ideas and perspectives.

Application

Graduates of a Diploma will demonstrate the application of knowledge and skills:

- with depth in areas of specialisation, in contexts subject to change and skills
- with initiative and judgment in planning, design, technical or management functions with some direction
- to adapt a range of fundamental principles and complex techniques to known and unknown situations
- across a broad range of technical or management functions with accountability for personal outputs and personal and team outcomes within broad parameters.

Volume of learning

The volume of learning of a Diploma is typically 1 – 2 years

Advanced Diploma qualification descriptions

MEM60122 Advanced Diploma of Engineering

The MEM60122 Advanced Diploma of Engineering qualification provides the skills and knowledge skills and knowledge required to undertake para-professional and advanced technician work across a range of discipline areas including mechanical, mechatronics, manufacturing, maintenance, engineering drafting and heating ventilation air-conditioning and refrigeration in manufacturing and engineering.

The qualification provides the opportunity to develop theoretical knowledge and technical skills in either a specific discipline area or across a broad field of para-professional and technical work and learning.

MEM60222 Advanced Diploma of Jewellery and Object Design

The MEM60222 Advanced Diploma of Jewellery and Object Design qualification provides the skills and knowledge skills and knowledge required to develop jewellery and object design solutions that require a wide range of specialised technical and creative skills.

Design solutions reflect consideration of aesthetics, function, production techniques, material characteristics, and marketability of jewellery and objects. It is typically used to develop skills

and knowledge in jewellery and object design enterprises. Skills gained from the qualification may be applied to specialist jewellery and object design briefs, including heritage jewellery, theatre and film commissions, exhibitions and churchware, as well one-off individual client briefs.

MEM60322 Advanced Diploma of Engineering – Planning

This qualification provides knowledge and skills in advanced technical planning for manufacturing and engineering operations, including planning, scheduling and organising materials supply, equipment utilisation, logistics, utilities, and services for manufacturing and engineering.

Completion of this qualification will enable a person to work in a variety of roles including supervisory and managerial operations roles, production planning, estimating, scheduling, and logistics support either individually or as part of a multidisciplinary team.

Graduate Diploma AQF qualification descriptor

Purpose

The Graduate Diploma qualifies individuals who apply a body of knowledge in a range of contexts to undertake professional or highly skilled work and as a pathway for further learning.

Knowledge

Graduates of a Graduate Diploma will have advanced knowledge within a systematic and coherent body of knowledge that may include the acquisition and application of knowledge and skills in a new or existing discipline or professional area.

Skills

Graduates of a Graduate Diploma will have:

- cognitive skills to review, analyse, consolidate and synthesise knowledge and identify and provide solutions to complex problems
- cognitive skills to think critically and to generate and evaluate complex ideas
- specialised technical and creative skills in a field of highly skilled and/or professional practice
- communication skills to demonstrate an understanding of theoretical concepts
- communication skills to transfer complex knowledge and ideas to a variety of audiences.

Application

Graduates of a Graduate Diploma will demonstrate the application of knowledge and skills:

- to make high level, independent judgements in a range of technical or management functions in varied specialised contexts
- to initiate, plan, implement and evaluate broad functions within varied specialised technical and/or creative contexts
- with responsibility and accountability for personal outputs and all aspects of the work or function of others within broad parameters.

Volume of learning

The volume of learning of a Graduate Diploma is typically 1 – 2 years

Graduate Diploma qualification description

MEM80125 Graduate Diploma of Engineering

The MEM80125 Graduate Diploma of Engineering qualification provides the skills and knowledge skills and knowledge required to undertake high level supervisory technician and technical officer work across a range of discipline areas including mechanical, mechatronics, manufacturing, maintenance, and heating ventilation air-conditioning and refrigeration (HVACR) in manufacturing and engineering. The qualification provides the opportunity to gain advanced theoretical knowledge and technical skills in either a specific discipline area or across a broad field of technical work and learning.

The entry requirements for the MEM80125 Graduate Diploma of Engineering are:

- an Advanced Diploma of Engineering or a Diploma of Engineering, or a
- relevant Certificate IV or Certificate III together with significant relevant vocational practice in an engineering related role, or a
- Bachelor Degree; or other higher education qualification, with relevant vocational practice in an engineering related role.

The qualifications of an Advanced Diploma of Engineering or Diploma of Engineering relate to any relevant engineering discipline.

Appendix 6: Career pathways

The following table presents suggested pathways into and out of the MEM-coded qualifications. The pathways suggested are in no way mandatory and the qualifications listed support direct entry.

Qualification	Pathway in	Pathway out
Engineering/Manufacturing		
MEM10119 Certificate I in Engineering	NA	MEM20219 Certificate II in Engineering – Production Technology MEM30119 Certificate III in Engineering – Production Systems MEM30219 Certificate III in Engineering – Mechanical Trade MEM31925 Certificate III in Engineering – Fabrication Trade MEM30719 Certificate III in Marine Craft Construction MEM30819 Certificate III in Locksmithing MEM31019 Certificate III in Watch and Clock Service and Repair MEM31119 Certificate III in Engineering – Composites Trade MEM31322 Certificate III in Refrigeration and Air Conditioning MEM31519 Certificate III in Engineering – Toolmaking Trade MEM31719 Certificate III in Engineering – Casting and Moulding Trade MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
Production		

Qualification	Pathway in	Pathway out
MEM20219 Certificate II in Engineering – Production Technology	MEM10119 Certificate I in Engineering	MEM30119 Certificate III in Engineering – Production Systems MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM30119 Certificate III in Engineering – Production Systems	MEM10119 Certificate I in Engineering MEM20219 Certificate II in Engineering – Production Technology	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
Engineering		
MEM20422 Certificate II in Engineering Pathways		MEM31322 Certificate III in Refrigeration and Air Conditioning
MEM30219 Certificate III in Engineering – Mechanical Trade	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM31925 Certificate III in Engineering – Fabrication Trade	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM31622 Certificate III in Engineering - Patternmaking Trade		
MEM31119 Certificate III in Engineering – Composites Trade	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM31219 Certificate III in Engineering – Industrial Electrician	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM30422 Certificate III in Engineering - Electronic Trade		

Qualification	Pathway in	Pathway out
MEM30522 Certificate III in Engineering - Technical		
MEM31419 Certificate III in Engineering – Fixed and Mobile Plant Mechanic	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM31519 Certificate III in Engineering – Toolmaking Trade	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM31719 Certificate III in Engineering – Casting and Moulding	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
MEM40119 Certificate IV in Engineering	MEM10119 Certificate I in Engineering MEM20219 Certificate II in Engineering – Production Technology MEM30119 Certificate III in Engineering – Production Systems MEM30219 Certificate III in Engineering – Mechanical Trade MEM31925 Certificate III in Engineering – Fabrication Trade MEM30719 Certificate III in Marine Craft Construction MEM30819 Certificate III in Locksmithing MEM31019 Certificate III in Watch and Clock Service and Repair MEM31322 Certificate III in Refrigeration and Air Conditioning	MEM50119 Diploma of Engineering – Advanced Trade

Qualification	Pathway in	Pathway out
	MEM31419 Certificate III in Engineering – Fixed and Mobile Plant Mechanic MEM31519 Certificate III in Engineering – Toolmaking Trade MEM31719 Certificate III in Engineering – Casting and Moulding	
MEM40422 Certificate IV in Engineering Drafting	MEM31322 Certificate III in Refrigeration and Air Conditioning	
MEM50222 Diploma of Engineering - Technical	MEM31322 Certificate III in Refrigeration and Air Conditioning	
MEM50118 Diploma of Engineering – Advanced Trade	MEM10119 Certificate I in Engineering MEM20219 Certificate II in Engineering – Production Technology MEM30119 Certificate III in Engineering – Production Systems MEM30219 Certificate III in Engineering – Mechanical Trade MEM31925 Certificate III in Engineering – Fabrication Trade MEM30719 Certificate III in Marine Craft Construction MEM30819 Certificate III in Locksmithing MEM31019 Certificate III in Watch and Clock Service and Repair	NA

Qualification	Pathway in	Pathway out
	MEM31322 Certificate III in Refrigeration and Air Conditioning MEM31419 Certificate III in Engineering – Fixed and Mobile Plant Mechanic MEM31519 Certificate III in Engineering – Toolmaking Trade MEM31719 Certificate III in Engineering – Casting and Moulding MEM40119 Certificate IV in Engineering	
MEM50425 Diploma of Engineering – Non-Destructive Testing	MEM30522 Certificate III in Engineering – Technical	MEM60122 Advanced Diploma of Engineering
MEM50522 Diploma of Engineering - Materials	MEM30522 Certificate III in Engineering – Technical MEM31119 Certificate III in Engineering – Composites Trade MEM40119 Certificate IV in Engineering	MEM60122 Advanced Diploma of Engineering
MEM50622 Diploma of Engineering - Prototyping	MEM30522 Certificate III in Engineering – Technical MEM40119 Certificate IV in Engineering	MEM60122 Advanced Diploma of Engineering
MEM50722 Diploma of Engineering -Planning	MEM30522 Certificate III in Engineering – Technical MEM40119 Certificate IV in Engineering	MEM60122 Advanced Diploma of Engineering
MEM50822 Diploma of Applied Technologies	MEM30119 Certificate III in Engineering – Production Systems MEM30219 Certificate III in Engineering – Mechanical Trade	MEM60122 Advanced Diploma of Engineering

Qualification	Pathway in	Pathway out
	MEM30422 Certificate III in Engineering - Electronic Trade MEM30522 Certificate III in Engineering – Technical MEM31925 Certificate III in Engineering – Fabrication Trade MEM40119 Certificate IV in Engineering	
MEM60122 Advanced Diploma of Engineering	MEM31322 Certificate III in Refrigeration and Air Conditioning	
MEM60322 Advanced Diploma of Engineering - Planning	MEM50722 Diploma of Engineering - Planning	
MEM80125 Graduate Diploma of Engineering	an Advanced Diploma of Engineering or a Diploma of Engineering, or a relevant Certificate IV or Certificate III together with significant relevant vocational practice in an engineering related role, or a Bachelor Degree; or other higher education qualification, with relevant vocational practice in an engineering related role.	Post Graduate qualifications/degrees
Jewellery Manufacture		
MEM30619 Certificate III in Jewellery Manufacture	MEM10119 Certificate I in Engineering	MEM40322 Certificate IV in Advanced Jewellery Manufacture MEM50322 Diploma of Jewellery and Object Design MEM60222 Advanced Diploma of Jewellery and Object Design
MEM40322 Certificate IV in Advanced Jewellery Manufacture		MEM50322 Diploma of Jewellery and Object Design

Qualification	Pathway in	Pathway out
		MEM60222 Advanced Diploma of Jewellery and Object Design
MEM50322 Diploma of Jewellery and Object Design		MEM60222 Advanced Diploma of Jewellery and Object Design
MEM60222 Advanced Diploma of Jewellery and Object Design	MEM50322 Diploma of Jewellery and Object Design	
Marine Craft Construction		
MEM30719 Certificate III in Marine Craft Construction	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
Locksmithing		
MEM30819 Certificate III in Locksmithing	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
Boating Services		
MEM10222 Certificate I in Boating Services		
MEM20322 Certificate II in Boating Services		
MEM30919 Certificate III in Boating Services	MEM10222 Certificate I in Boating Services MEM20322 Certificate II in Boating Services	MEM40222 Certificate IV in Boating Services
MEM40222 Certificate IV in Boating Services	MEM10222 Certificate I in Boating Services MEM20322 Certificate II in Boating Services	
Textiles		
MEM31822 Certificate III in Engineering - Textile Mechanic		
Watch and Clock Service and Repair		

Qualification	Pathway in	Pathway out
MEM31019 Certificate III in Watch and Clock Service and Repair	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade
Refrigeration and Air Conditioning		
MEM31322 Certificate III in Refrigeration and Air Conditioning	MEM10119 Certificate I in Engineering	MEM40119 Certificate IV in Engineering MEM50119 Diploma of Engineering – Advanced Trade

Useful links

General links

Australian Qualifications Framework: First edition, July 2011: <https://www.aqf.edu.au>

TGA website, training packages: <https://www.training.gov.au>

Manufacturing Alliance: <https://manufacturingalliance.org.au/>

Department of Employment and Workplace Relations: <https://www.dewr.gov.au/>

Australian Skills Quality Authority (ASQA): <http://www.asqa.gov.au>

Victorian Registration and Qualifications Authority: <https://www.vrqa.vic.gov.au>

Training Accreditation Council, WA: <https://www.tac.wa.gov.au>

The Australian Apprenticeships: <https://www.australianapprenticeships.gov.au> offers information about traineeships and apprenticeships and includes links to state and territory authorities (STAs) that monitor provision.

State Training Authorities

Australian Capital Territory: <https://www.education.act.gov.au/>

New South Wales: <https://education.nsw.gov.au/>

Northern Territory: <https://education.nt.gov.au/>

Queensland: <https://training.qld.gov.au>

South Australia: <https://www.skills.sa.gov.au>

Tasmania: <https://www.skills.tas.gov.au>

Victoria: <http://www.education.vic.gov.au>

Western Australia: <https://www.dtwd.wa.gov.au/training>

Foundation skills

National Foundation Skills Strategy for Adults: <https://www.dewr.gov.au/skills-information-training-providers/national-foundation-skills-strategy-adults>

Further advice may be obtained from:

Manufacturing Industry Skills Alliance
L5/534 Church Street, Cremorne, VIC 3121
P: (03) 9815 7000
E: solutions@manufacturingalliance.org.au
W: <https://manufacturingalliance.org.au/>