

Occupation: Electrical Engineer

Job Description: employees use advanced skills, knowledge and techniques to install, maintain, fault find, repair and modify electrical circuits and systems, electrical components and equipment typically found in a process, production or manufacturing environment. Workers performing this work must be licensed by the state electrical licensing body. Metal, Engineering and Associated Industries Award classification on completion: C8 They ensure sustainable work practices are applied to reduce the negative environmental impacts.

Qualification: MEM40105 Certificate IV in Engineering

This qualification reflects the role of individuals who use well-developed skills and a broad knowledge base in a wide variety of contexts. They apply solutions to a defined range of unpredictable problems, and analyse and evaluate information from a variety of sources. They may provide leadership and guidance to others with some limited responsibility for the output of others.

The Metal and Engineering MEM05 Training Package guidelines, with the incorporation of an environmental electives have been applied to create this occupational profile:

41 Units Required	
MEM05001B	Perform manual soldering/desoldering – electrical/electronic components
MEM09002B	Interpret technical drawing
MEM10002B	Terminate and connect electrical wiring
MEM10003B	Install and test electrical wiring and circuits up to 1000 volts a.c. and 1500 volts d.c.
MEM10004B	Enter and change programmable controller operational parameters
MEM10005B	Commission programmable controller programs
MEM10006A	Organise and communicate information
MEM10006B	Install machine/plant
MEM12002B	Perform electrical/electronic measurement
MEM12003B	Perform precision mechanical measurement
MEM12004B	Perform precision electrical/electronic measurement
MEM12023A	Perform engineering measurements
MEM12024A	Perform computations
MEM13001B	Perform emergency first aid
MEM13014A	Apply principles of occupational health and safety in the work environment
MEM14004A	Plan to undertake a routine task
MEM14005A	Plan a complete activity
MEM15002A	Apply quality systems
MEM15024A	Apply quality procedures
MEM16007A	Work with others in a manufacturing, engineering or related environment

MEM16008A	Interact with computing technology
MEM17003A	Assist in the provision of on the job training

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MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
MEM18003C	Use tools for precision work
MEM18005B	Perform fault diagnosis, installation and removal of bearings
MEM18006B	Repair and fit engineering components
MEM18009B	Perform leveling and alignment of machines and engineering components
MEM18010C	Perform equipment condition monitoring and recording
MEM18011C	Shut down and isolate machines/equipment
MEM18016B	Analyse plant and equipment condition monitoring results
MEM18045B	Fault find/repair electrical equipment/components up to 250 volts single phase supply
MEM18048B	Fault find and repair/rectify basic electrical circuits
MEM18049B	Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.
MEM18051B	Fault find and repair/rectify complex electrical circuits
MEM18055B	Dismantle, replace and assemble engineering components
MEM18057B	Maintain/service analog/digital electronic equipment
MEM18070C	Modify complex electrical circuits and systems
MCMT270A	Use sustainable energy practices
MSAENV272A	Participate in environmentally sustainable work practices
MSAENV472A	Implement and monitor environmentally sustainable work practices