



MEM40105 Certificate IV in Engineering (Instrumentation)

National ID: MEM40105 | State ID: WT46

About this course

Are you already working in the engineering industry and looking to further develop your skills?

This qualification covers the skills and knowledge required for employment as a Higher Engineering Tradesperson or a Special Class Engineering Tradesperson (Mechanical)-Level II, Special Class Engineering Tradesperson (Fabrication)-Level II, Special Class Engineering Tradesperson (Electrical/Electronic)-Level II within the metal, engineering, manufacturing and associated industries or at equivalent levels in other industries where Engineering Tradespersons work.

The qualification has been specifically developed to be delivered to people who are existing engineering tradespersons or delivered to apprentices in an Engineering Trade who choose to study at a higher level during their apprenticeship. The qualification packaging has been developed on the assumption that competency will be developed through an integrated combination of on and off the job learning strategies such as those delivering through a formal apprenticeship.

Much of this qualification is available for Recognition of Prior Learning.

You will gain knowledge and skills in:

- design

- assembly
- installation
- modification
- manufacturing
- testing and maintenance.

Overview

Semester 2, 2019

Kalgoorlie Campus - Self Paced External



Duration: **0**



When: **Semester 2, 2019**



How:

F
R
W

Recognition of Prior Learning
Flexible delivery
Workplace Assessment
Continuous Enrolment

Units

All CORE units must be completed as part of this course. Elective units must be chosen to add to a total point score of 109.

Core

Unit Title	National ID
Perform engineering measurements	MEM12023A
Perform computations	MEM12024A
Apply principles of occupational health and safety in the work environment	MEM13014A

Unit Title	National ID
Plan to undertake a routine task	MEM14004A
Plan a complete activity	MEM14005A
Apply quality systems	MEM15002A
Apply quality procedures	MEM15024A
Organise and communicate information	MEM16006A
Work with others in a manufacturing, engineering or related environment	MEM16007A
Interact with computing technology	MEM16008A
Assist in the provision of on the job training	MEM17003A
Participate in environmentally sustainable work practices	MSAENV272B

Elective

Unit Title	National ID
Perform manual soldering/desoldering - electrical/electronic components	MEM05001B
Interpret technical drawing	MEM09002B
Terminate and connect electrical wiring	MEM10002B
Install and test electrical wiring and circuits up to 1000 volts a.c. and 1500 volts d.c.	MEM10003B
Enter and change programmable controller operational parameters	MEM10004B
Commission programmable controller programs	MEM10005B
Terminate and connect specialist cables	MEM10011B
Perform electrical/electronic measurement	MEM12002B
Perform precision electrical/electronic measurement	MEM12004B

Unit Title	National ID
Use hand tools	MEM18001C
Use power tools/hand held operations	MEM18002B
Fault find/repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	MEM18046B
Fault find and repair/rectify basic electrical circuits	MEM18048B
Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	MEM18049C
Fault find and repair/rectify complex electrical circuits	MEM18051B
Fault find, test and calibrate instrumentation systems and equipment	MEM18054B
Dismantle, replace and assemble engineering components	MEM18055B
Maintain/service analog/digital electronic equipment	MEM18057B
Maintain, repair control instrumentation - single and multiple loop control systems	MEM18060B
Install, maintain and calibrate instrumentation sensors, transmitters and final control elements	MEM18062B
Tune control loops - multi controller or multi element systems	MEM18067B

Entrance requirements

School Leaver	Non-School Leaver	AQF
C Grades in Year 11 WACE General English, and OLNA; or NAPLAN 9 Band 8	C Grades in Year 11 English and Maths or equivalent	Certificate II or Certificate III

Important information

Disclaimer

Courses at Central Regional TAFE are delivered subject to resources and demand. For the latest information, check with the appropriate campus, as course availability may be subject to review and change.

Fees and charges

Please contact the college to receive an indicative price for this course.

Find details of all course costs on our Fees page [here](#).

At Central Regional TAFE, three types of fees may be charged:

- **Course fees** - set by the State Government and are calculated on the category of enrolment. Students studying a certificate course may be eligible for a concession. Concession students pay 30% of the **course fees** (not incidental, resource or other fees).
- **Resource fees** - covers materials purchased by the TAFE which will be consumed or transformed by students in the course of instruction, such as workshop materials & workbooks.
- **Other fees** - charged for goods and services that are provided by the TAFE such as security, name badges and IT infrastructure.

In addition to these fees, students may need to purchase textbooks, uniforms and other course specific equipment.

Please note, fees are subject to change.