



# MEM40105 Certificate IV in Engineering (Maintenance)

National ID: MEM40105 | State ID: WT47

## About this course

The Certificate IV in Engineering specifies the competencies required for employment as a Higher Engineering Tradesperson or a Special Class Engineering Tradesperson - Level II in mechanical, electrical/electronic or fabrication trade disciplines. The job role involves application of additional skills in the learner's trade or cross skills from other trades.

### Gain these skills:

- design, assembly, manufacture, installation, modification, testing, fault finding, commissioning, maintenance and service of equipment and machinery
- fabrication of structures and assemblies
- manufacture of sheet metal work
- use of relevant machinery, equipment and joining techniques
- working with fluid power systems, stationary and mobile equipment, instruments and refrigeration
- using computer controlled machine tools

## Overview

*This course may be offered with a blended, flexible delivery model to enable social distancing measures to be*

undertaken during the COVID-19 pandemic. This approach may include a mix of online and classroom based delivery, as well as practical and work experience placements. Lecturers will provide any specific instructions if your training delivery style needs to change.

## All year round, 2020

### Thornlie - Workplace-Traineeship



When: **All year round**



How: **Part Time  
Self Paced**

## Units

### Core

National ID	Unit Title
MEM12023A	Perform engineering measurements
MEM12024A	Perform computations
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
MEM16006A	Organise and communicate information
MEM16007A	Work with others in a manufacturing, engineering or related environment
MEM16008A	Interact with computing technology

National ID	Unit Title
MEM17003A	Assist in the provision of on the job training
MSAENV272B	Participate in environmentally sustainable work practices

## Elective

National ID	Unit Title
MEM05007C	Perform manual heating and thermal cutting
MEM05050B	Perform routine gas metal arc welding
MEM09002B	Interpret technical drawing
MEM15004B	Perform inspection
MEM16009A	Research and analyse engineering information
MEM16012A	Interpret technical specifications and manuals
MEM16014A	Report technical information
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
MEM18003C	Use tools for precision work
MEM18006C	Repair and fit engineering components
MEM18010C	Perform equipment condition monitoring and recording
MEM18020B	Maintain hydraulic system components
MEM18021B	Maintain hydraulic systems
MEM18024B	Maintain engine cooling systems
MEM18026C	Test compression ignition fuel systems

National ID	Unit Title
MEM18028B	Maintain engine lubrication systems
MEM18029B	Tune diesel engines
MEM18030B	Diagnose and rectify low voltage electrical systems
MEM18031B	Diagnose and rectify low voltage starting systems
MEM18032B	Maintain induction/exhaust systems
MEM18033B	Perform engine bottom-end overhaul
MEM18035B	Diagnose and rectify braking systems
MEM18037B	Diagnose and rectify low voltage charging systems
MEM18040B	Maintain suspension systems
MEM18041B	Maintain steering systems
MEM18043C	Diagnose and rectify automatic transmissions
MEM18044C	Diagnose and rectify drive line and final drives
MEM18047B	Diagnose and maintain electronic controlling systems on mobile plant
MEM18055B	Dismantle, replace and assemble engineering components

## 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

This course is available as a traineeship.

## Entrance requirements for traineeships

You must be employed in a training contract by an appropriate organisation to study an apprenticeship or traineeship.

In a traineeship you also gain hands-on skills and work experience, and improve your employment prospects, while earning a wage. On successful completion you will gain a nationally recognised qualification which can lead to rewarding career options. The difference between a traineeship and an apprenticeship is that a traineeship can be either a full time or part time employment based training arrangement, usually for a nominal duration of 12 months or more, generally in a non-trade related area.

To find out how to arrange a traineeship and study at South Metropolitan TAFE, please contact the [Jobs and Skills Centre](#) closest to you.

## Job opportunities

- Maintenance engineer

For information about jobs and pathways, please see <http://joboutlook.gov.au/>

Further study opportunities:

Diploma of Engineering -Advanced Trade (MEM50105)

## Fees and charges

### Indicative fees and charges

[2020 general admission fees list](#)

[2020 apprenticeship/traineeship fees list](#)

Fees and charges published on our website are indicative. Your fees will depend on your eligibility for government funding or a concession rate, and the units you choose to study or seek to be recognised under Recognition of Prior Learning (RPL). Our Indicative fees lists show fees that are:

- Based on the full possible study plan of units, including the recommended electives
- Based on full time study in 2020
- Charged at the government funded rate for over 18 years of age students
- Based on unit electives designed to meet localised industry demand for skills
- Made up of course fees and resource fees, or RPL fees. Course fees are the cost of your tuition, while resource fees pay for consumables provided to you to aid your study (such as printing and paper). You may also be required to purchase text books or equipment that are not part of our tuition or resource fees.

Fees may vary between students and between educational providers. Other charges may apply.

Visit our [Fees and payment options](#) page for more information.

Call 1800 001 001 to get a more accurate fee indication based on your eligibility and study plan before applying.

## **VET Student Loans**

Selected courses are VET Student Loan eligible courses.

A VET Student Loan creates a debt that must be repaid to the Commonwealth and is only available to students who are eligible.

To find out if you are eligible or to see the list of eligible courses visit our [Student Loans](#) page.

## **International students**

Selected courses are available to International students for full time study only.

Fees, charges, available locations, applications and enrolment procedures for International students are different to those for students who have Australian permanent residency.

For more information or to find a course visit the [TAFE International WA](#) website.

## **Apprenticeships and traineeships**

Fees for apprenticeships and traineeships are charged at a rate per nominal hour of study.

This means that your fees will vary depending on the units you study as part of your training plan.

Apprentices and trainees are liable to pay for their own fees but some industrial agreements (awards) dictate that employers are required to reimburse their apprentice upon receipt of satisfactory progress. An employer may also opt to pay on behalf of the apprentice or trainee.

For more information visit our [Apprenticeships and traineeships](#) page.

## **Recognition of Prior Learning**

Recognition of Prior Learning (RPL) enrolments are charged at \$3.25 per nominal hour of study.

No concession fees apply to RPL enrolments. Refer to the institutional or apprenticeship/traineeship fee lists for an indicative RPL course fee.

**Please note, fees are subject to change.**