

# MEM40119 - Certificate IV in Engineering

## Overview

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

## Duration

This program is offered as a 48 Month (4year) training course. **Note:** *usually completed in approx. 3.5 years*  
*You will be assigned an ATEC Case Manager who will work with you to develop a Training Plan that suits your needs.*

## Assessment

There are theory and practical training and assessment components to the course. Skills will be trained and assessed through a blend of off-the-job (trade school), self-paced study and on-the-job training. **Note:** *Some components may also be achieved through formal skills recognition assessment processes (RPL).*

## Entry Requirements

Participants **MUST:**

- Be a qualified Engineering Tradesperson; or
- Be signed into an approved Training Contract with an employer through an Australian Apprenticeship Support Network
- Be an Australian/New Zealand Citizen or hold an eligible VISA.
- Have the ability to read, write and understand basic English and carry out basic mathematical calculations.
- Have the physical ability to perform practical fabrication skills.

## Course Fees

Please contact ATEC on 1300 112 832 for further information on course fees.

## Subsidised Training

### Subsidised Fee

\$5032.00 AUD (GST exempt)

*This course may be subsidised by the Government of South Australia for eligible students. Please contact ATEC so we can assess your eligibility*  
<https://www.skills.sa.gov.au/subsidised-eligibility>

## Learner Requirements

- Provide your Unique Student Identifier (USI). To apply for a USI go to <https://www.usi.gov.au/your-usi/create-usi>
- Provision of Australian legal photo identification for enrolment purposes
- Applicants will be required to attend an enrolment session and undertake a Literacy and Numeracy Assessment at a level required to successfully complete the qualification. *Potential clients who are identified as not meeting course requirements will be assisted with referral to appropriate support services.*

## PPE (Personal Protective Equipment)

To be supplied by participant:

- Safety Boots (steel cap)
- Safety glasses
- Appropriate workshop attire (non-flammable). ***i.e. work trousers and a Long-sleeved work shirt (for WHS reasons please do not wear excessively loose clothing)***
- Drawing equipment
- Welding gloves and a welding helmet

## Outcome

On successful completion of all requirements of this course, learners will be issued with:

- 1) A Record of Results; and a
- 2) Certificate for the MEM40119 - Certificate IV in Engineering. **Note:** *Students who do not complete all the requirements of this course will receive a Statement of Attainment for the units of competency that have been successfully achieved.*

## Delivery Locations

- Ottoway

## Pre-enrolment information

Important information for prospective students in regard to ATEC Policies is available at <https://atec.asn.au/train-with-atec/pre-enrolment-information>

## How to apply

Applications and enquiries can be made:

- Online – <https://atec.asn.au/>
- Email – [bookings@atec.asn.au](mailto:bookings@atec.asn.au)
- Call ATEC on 1300 112 832

Sample training plan - **Packaging rules**

12 core units and a number of electives to make a minimum of 109 points in total.

Core units	Unit Title	Nominal Hours	Points
MSMENV272	Participate in environmentally sustainable work practices	30	3
MEM12023	Perform engineering measurements	30	5
MEM12024	Perform computations	30	3
MEM13015	Work safely and effectively in manufacturing and engineering	40	2
MEM14006	Plan work activities	40	4
MEM18001	Use hand tools	20	2
MEM18002	Use power tools/hand held operations	20	2
MEM16006	Organise and communicate information	20	2
MEM16008	Interact with computing technology	20	2
MEM17003	Assist in the provision of on-the-job training	20	2
MEM11011	Undertake manual handling	20	2
MEM09002	Interpret technical drawing	40	4
Elective units	Unit Title	Nominal Hours	Points
MEM12003	Perform precision mechanical measurement	20	2
MEM18011	Shut down and isolate machines/equipment	20	2
MEM16012	Interpret technical specifications and manuals	40	4
MEM18019	Maintain pneumatic systems	40	4
MEM18021	Maintain hydraulic systems	40	4
MEM05005	Carry out mechanical cutting	20	2
MEM07005	Perform general machining	80	8
MEM07006	Perform lathe operations	40	4
MEM07007	Perform milling operations	40	4
MEM12006	Mark off/out (general engineering)	40	4
MEM18003	Use tools for precision work	40	4
MEM18004	Maintain and overhaul mechanical equipment	40	4
MEM18005	Perform fault diagnosis, installation and removal of bearings	40	4
MEM18006	Perform precision fitting of engineering components	60	6
MEM18007	Maintain and repair mechanical drives and mechanical transmission assemblies	40	4
MEM18009	Perform precision levelling and alignment of machines and engineering components	40	4
MEM18018	Maintain pneumatic system components	40	4
MEM18020	Maintain hydraulic system components	40	4
MEM18055	Dismantle, replace and assemble engineering components	30	3
MEM05012	Perform routine manual metal arc welding	20	2
MEM05050	Perform routine gas metal arc welding	20	2
MEM05085	Select welding processes	20	2
MEM05052	Apply safe welding practices	40	4
MEM05091	Weld using gas metal arc welding process	40	4
MEM07021	Perform complex lathe operations	40	4
MEM09003	Prepare basic engineering drawing	80	8
<b>Total Hours/Points</b>		<b>1340</b>	<b>134</b>



Supported by  
**Government of  
South Australia**

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