



**AUSTRALIAN INSTITUTE OF WORK-INTEGRATED
EDUCATION AND RESEARCH**

ABN 39 660 638 835 RTO CODE: 46175

MEM40119
**CERTIFICATE IV
ENGINEERING**



📍 Head Office: 137 Days Road, Regency Park, SA 5010, Australia

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MEM40119

CERTIFICATE IV IN ENGINEERING

QUALIFICATION

The MEM40119 Certificate IV in Engineering is a nationally recognised course for those looking for the skills and expertise required for a successful and rewarding career working in the Engineering industry. This qualification defines the skills and knowledge required for a higher engineering tradesperson within metal, engineering, manufacturing and associated industries.

CAREER OPPORTUNITIES

Completing the MEM40119 - Certificate IV in Engineering can open up a variety of career opportunities. Graduates can pursue roles such as Mechanical Engineering Technician, Maintenance Technician, Manufacturing Technician, Draftsperson, Toolmaker, Fabrication Tradesperson, Quality Assurance Technician, Production Supervisor, Technical Sales Representative, and Workshop Manager. These positions span across multiple industries, including manufacturing, automotive, aerospace, construction, and mining, offering diverse paths for those equipped with advanced engineering skills and knowledge.

THE COURSE FACTS

Duration :

- 2 Years

Apprenticeship : 3 to 4 Years

Experienced : 1 to 2 Years

- Students with relevant knowledge and work experience may be eligible for Recognition of Prior Learning (RPL), enabling them to complete the course in a shorter timeframe.

Commencing :

Students can commence at any intake date available on the website.

Delivery mode :

Face-to-face/Workplace/Online/Blended

Head Office :

Regency International Centre, 137 Days Rd,
Regency Park SA 5010

Fees :

Please visit: www.aiwer.edu.au

ENTRY REQUIREMENTS

The following local entry requirements apply to applicants seeking to enrol in this course

- ✓ Complete a Pre-Training Review and a Language, Literacy, Numeracy and Digital Skills assessment

TRAINING AND ASSESSMENT

The course will be delivered, within a purpose-designed learning environment. Face-to-face training is primarily conducted in both a classroom based (theoretical) and fabrication workshop based (practical) environment. Workplace, online, and blended delivery options are also available for eligible students. The assessment is conducted using a combination of skills tests and knowledge tests.



UNITS OF COMPETENCY

The following identifies the units of competence to be delivered for Welding specialisation:

MEM09002 Interpret technical drawing	Core
MEM11011 Undertake manual handling	Core
MEM12023 Perform engineering measurements	Core
MEM12024 Perform computations	Core
MEM13015 Work safely and effectively in manufacturing and engineering	Core

MEM14006 Plan work activities	Core
MEM16006 Organise and communicate information	Core
MEM16008 Interact with computing technology	Core
MEM17003 Assist in the provision of on-the-job training	Core
MEM18001 Use hand tools	Core
MEM18002 Use power tools/hand held operations	Core
MSMENV272 Participate in environmentally sustainable work practices	Core
MEM12026 Perform advanced trade calculations in a manufacturing, engineering or related environment	Elective
MEM12003 Perform precision mechanical measurement	Elective
MEM16010 Write reports	Elective
MEM16011 Communicate with individuals and small groups	Elective
MEM16012 Interpret technical specifications and manuals	Elective
MEM05004 Perform routine oxy fuel gas welding	Elective
MEM05005 Carry out mechanical cutting	Elective
MEM05006 Perform brazing and/or silver soldering	Elective
MEM05007 Perform manual heating and thermal cutting	Elective
MEM05071 Perform advanced manual thermal cutting, gouging and shaping	Elective
MEM05010 Apply fabrication, forming and shaping techniques	Elective
MEM05089 Assemble fabricated components	Elective
MEM05012 Perform routine manual metal arc welding	Elective
MEM05014 Monitor quality of production welding/fabrications	Elective
MEM05090 Weld using manual metal arc welding process	Elective
MEM05091 Weld using gas metal arc welding process	Elective

MEM05092 Weld using gas tungsten arc welding process	Elective
MEM05037 Perform geometric development	Elective
MEM05096 Weld using flux core arc welding process	Elective
MEM05049 Perform routine gas tungsten arc welding	Elective
MEM05050 Perform routine gas metal arc welding	Elective
MEM05085 Select welding processes	Elective
MEM05052 Apply safe welding practices	Elective
MEM05056 Perform routine flux core arc welding	Elective
MEM09003 Prepare basic engineering drawing	Elective
MEM11012 Purchase materials	Elective
MEM12007 Mark off/out structural fabrications and shapes	Elective
MEM13019 Undertake work health and safety activities in the workplace	Elective

LEARNING OUTCOMES

Completing the MEM40119 - Certificate IV in Engineering provides students with advanced technical skills in machining, fabrication, and welding. They will develop strong analytical and problem-solving abilities for diagnosing and resolving engineering issues, creating and interpreting technical drawings, and performing machinery maintenance, troubleshooting, and repair. The program also covers quality assurance, project management, workplace safety, and communication skills for effective teamwork and client interactions. Students will gain skills for technical sales roles in promoting engineering products and services. These outcomes prepare graduates for advanced roles in industries like manufacturing, automotive, aerospace, construction, and mining, enhancing career prospects and professional development.

ACADEMIC PATHWAYS

After completing the MEM40119 - Certificate IV in Engineering, there are several pathways available to further graduates' education and career. They can pursue a MEM50119 - Diploma

of Engineering - Advanced Trade for advanced technical and supervisory skills, or consider higher education options such as a Bachelor of Engineering or Bachelor of Technology to access specialised and higher-level positions. Specialised training courses in areas like automation, robotics, or project management can enhance specific skill sets.

APPLICATION PROCESS

- Applicants must read and understand the Course Brochure and Student Handbook.
- Complete the Enrolment Form which is also available on our website.
- Complete a Pre-Training Review and a Language, Literacy, Numeracy and Digital Skills assessment.
- When the application for enrolment is complete student will be issued a Letter of Offer, invoice for initial payment of fees (as applicable) and provided with a Student Agreement for student's review.
- On acceptance of the offer student is required to return the student agreement with the initial payment of fees (as applicable).
- Upon approval of the application, the student will receive a confirmation of enrolment and an official receipt for the fees (as applicable) paid.



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FOR FURTHER INFORMATION PLEASE CONTACT US:

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