Australian Institute of Engineering

Engineers bring dreams to reality

MEM40119

CERTIFICATE IV

IN ENGINEERING

RTO ID : 45356 | CRICOS CODE : 03685G | CRICOS COURSE CODE : 0100617

NATIONALLY RECOGNISED TRAINING

MEM40119 Certificate IV in Engineering

Australian Institute of Engineering
Engineers bring dreams to reality

RTO ID : 45356 | CRICOS CODE : 03685G | CRICOS COURSE CODE : 0100617

Nationally Recognised Training

Qualification:

This qualification defines the skills and knowledge required for a higher engineering tradesperson within metal, engineering, manufacturing, and associated industries.

The skills associated with this qualification are intended to apply to a wide range of engineering work undertaken in the fields of, casting and moulding, computer numerically controlled (CNC) programming, fluid power, heavy fabrication, maintenance, plant mechanics, mechatronics, patternmaking, robotics, toolmaking, welding, and repair, including post-trade work.

It provides the skills and knowledge for a person to understand and implement quality control techniques, exercise good interpersonal and communications skills, work from complex instructions and procedures, exercise discretion within the scope of responsibility, perform work under limited supervision either individually or in a team environment, be responsible for assuring the quality of their own work, provide trade guidance and assistance as part of a work team, perform non-trade tasks which are incidental or peripheral to the primary tasks and facilitate the completion of the whole task, inspect products and/or materials for conformity with established operational standards, operate lifting equipment incidental to their work and assists in the provision of training in conjunction with supervisors and trainers.

Pathways:

Further training pathways from this qualification include transition into technical work through completion of the MEM50119 Diploma of Engineering – Advanced Trade or MEM50112 Diploma of Engineering – Technical or other relevant qualifications

Delivery Arrangements

This program is to be delivered through a combination of face-to-face visits and facilitated live online meetings supported with on-the-job training at the learner's workplace.

Theory based delivery will occur through facilitated online training sessions occurring fortnightly (3 hours) and practical skills training will occur through a minimum of 4 -5 face to face visits at the student's workplace through structured training sessions from a qualified trainer / assessor.

Through the online facilitated training sessions, a qualified trainer will provide the required knowledge as per the unit content and will ensure that learning is imparted. The Trainer will have designated session plans to reference to ensure the learning content is provided consistently to all learners.

For practical components / skills, the Trainer will coordinate with the employer to ensure access to suitable environments for practical training to occur.
Learners will also be supplied with Learner Guides for each unit delivered and will work through the learning activities during self-study time. Learning activities will give learners the opportunity to practice and prepare for assessments.

Learners will have the opportunity to apply and test their new knowledge and skills through their employment and on-the-job training within their employer.

Course Structure

The minimum requirements for achievement of the Certificate IV in Engineering are:

- Completion of all core units of competency listed below (totalling 33) points, and
- Elective units of competency to a minimum value of 12 points from group a
- Elective units of competency to a maximum value of 87 points from group b to bring the total value to 132 points.

CORE UNITS

Unit Code	Unit Name
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM16008	Interact with computing technology
MEM17003	Assist in the provision of on-the-job training
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MSMENV272	Participate in environmentally sustainable work

ABN: 13 612 727 143 | RTO ID: 45356 | CRICOS CODE : 03685G
Head Office : 60 Belfast Street, Broadmeadows, VIC - 3047, Australia
Tel : +61 3 9302 1296 | Website : www.auie.edu.au | Email : info@auie.edu.au

FINALIST

Winner in Learning and Development – 2021 Hume Business Awards

2020 Education and Training Awards

Best Fabrication & Mechanical Engineering RTO 2020 - Australia

MEM40119 Certificate IV in Engineering

Australian Institute of Engineering
Engineers bring dreams to reality

RTO ID : 45356 | CRICOS CODE : 03685G | CRICOS COURSE CODE : 0100617

Nationally Recognised Training

ELECTIVE UNITS

Unit Code	Unit Name
MEM12025	Use graphical techniques and perform simple statistical computations
MEM16010	Write reports
MEM16012	Interpret technical specifications and manuals
MEM16014	Report technical information
MEM17001	Assist in development and deliver training in the workplace
MEM18011	Shut down and isolate machines/equipment
MEM24012	Apply metallurgy principles
MEM05004	Perform routine oxy fuel gas welding
MEM05005	Carry out mechanical cutting
MEM05007	Perform manual heating and thermal cutting
MEM05010	Apply fabrication, forming and shaping techniques
MEM05011	Assemble fabricated components
MEM05012	Perform routine manual metal arc welding
MEM05015	Weld using manual metal arc welding process
MEM05017	Weld using gas metal arc welding process
MEM05019	Weld using gas tungsten arc welding process
MEM05037	Perform geometric development
MEM05047	Weld using flux core arc welding process
MEM05049	Perform routine gas tungsten arc welding
MEM05050	Perform routine gas metal arc welding
MEM05056	Perform routine flux core arc welding
MEM12007	Mark off/out structural fabrications and shapes
MEM05051	Select welding processes
MEM05052	Apply safe welding practices
MEM24001	Perform basic penetrant testing
MEM05016	Perform advanced welding using manual metal arc welding process
MEM05018	Perform advanced welding using gas metal arc welding process
MEM05020	Perform advanced welding using gas tungsten arc welding process
MEM05048	Perform advanced welding using flux core arc welding process
MEM11016	Order materials

*The selected units have listed pre-requisite units that are listed within the Training Package and the AIE Engineering Qualifications Overview. All elective units are included and accounted for within the unit selection and order of delivery

COURSE FEES:

#Fees have been calculated on 1320 hrs

Cost for eligible students:

Tution Fee $5280.00 | Materials Fee $726.00

Total Payable Fees $6,006.00

Cost for Ineligible Students:

Tution Fee $17,160.00 | Materials Fee $726.00

Total Payable Fees $17,886.00

To apply and enrol in this course with Australian Institute of Engineering please contact Brett Ambrosio for further information:
Email : bambrosio@auie.edu.au

Australian Institute of Engineering

Engineers bring dreams to reality

NATIONALLY RECOGNISED TRAINING

+61 3 9302 1296 | info@auie.edu.au

www.auie.edu.au