

MANUFACTURING & ENGINEERING INTRODUCTION

MEM10119 Certificate I in Engineering & Statement of Attainment towards

MEM20413 Certificate II in Engineering Pathways

Version 1 March 2021

COURSE DETAILS

Hours	240 hours
Type	Board Endorsed Course
Duration	2 years
Unit Value	2 unit Preliminary 2 unit HSC
Specialisation	No
HSC Exam	No
ATAR	No
Work placement	Mandatory 35 hours

RECOGNITION National and HSC Qualification

ASSESSMENT

Assessment strategies may include:

- Observation
- Student Demonstration
- Questioning
- Written tasks
- Tests



FURTHER STUDY

Apprenticeship, for example in

- Engineering - Fabrication Trade
- Engineering - Mechanical Trade
- Engineering - Electrical/Electronic Trade
- Engineering - Technical
- Boating Services
- Jewellery

DUTIES AND TASKS OF A TRADES ASSISTANT

Trades assistants may perform the following tasks:

- Position and hold metal stock or products to enable work to be carried out
- Perform assembly and dismantling operations, such as screwing or bolting
- Solder or spot-weld components using electrical spot or butt welding machines
- Operate power hammers, presses or other cutting and shaping tools and machines
- Transport tools, materials and work pieces to and from sites or workbenches
- Hand tools to tradespersons and hold tools not immediately required
- Clean and prepare working surfaces.

ABOUT

The Certificate I in Engineering & SOA toward Certificate II in Engineering Pathways provides students with broad-based underpinning competencies in a range of engineering and manufacturing skills.

Students undertaking this program will work on engineering workshop machines as well as learning about hand and power tools and precision measurement tools. Students will have the opportunity to learn welding skills using electric welding machines, undertake a basic engineering project

JOB ROLES

Trades' assistants related to this qualification include:

- Factory Worker
- Engineering/manufacturing employees within the areas of metal, engineering, manufacturing and associated industries



PERSONAL REQUIREMENTS

- Enjoy technical and engineering activities
- Good with hands
- Enjoy practical and manual activities
- Able to work efficiently
- Able to work as part of a team
- Safety-conscious
- Able to cope with the physical demands of the job.

CAREER PATHWAYS

Sheet Metal Worker, Machinist, Equipment Maintainer & Repairer, Plant Mechanic, Mechanical Fitter, Tool and Die Maker, Design Engineer, CNC Operator, Mechanical and Maintenance Engineer



STUDENT OUTCOMES for Certificate I in Engineering and Certificate II in Engineering Pathway

These are the outcomes of graduates surveyed six months after completing their training for Certificate I in Engineering.

All statistics are supplied by the [National Centre for Vocational Education Research](https://www.nvq.gov.au/)

Salary



The middle of the range of salaries earned by graduates in the Engineering and Related Technologies field starting their first ever full-time job after graduating.

Jobs

Graduates of the Engineering and Related Technologies field (Certificate I) are most often employed as:



28.5%
Labourers



20.9%
Technicians and
Trades Workers



20.2%
Professionals

Industries

Graduates of the Engineering and Related Technologies field (Certificate I) are most often employed in:



13.4%
Construction



13.2%
Manufacturing



11.6%
Transport, postal
and warehousing

Further reading

<http://training.gov.au/training/details/MEM10119>, MEM20413

<https://smartandskilled.nsw.gov.au/for-students/job-guides>

<https://www.myskills.gov.au/courses/details?Code=MEM10119>