



## About Metals & Engineering

**Intent:** This course aims to provide students with the knowledge and skills required to work towards a career in manufacturing, engineering and related services industries. It provides students with foundation safety, skills and knowledge while working with metal and its associated tools and equipment.

**Course Overview:** Students will be able to gain skills in occupational work safety, interpreting technical drawings and performing computations, planning tasks, fabrication including welding, tools used and procedures for carrying out routine work activities.

**Work Placement:** Work placement is a mandatory component of this course. Students are required to undertake a minimum of 70 hours work placement within the Metal & Engineering Industry.

**Qualifications:** This course is based on the National Metal & Engineering Training Package (MEM05v11.1). Depending on the achievement of units of competency, the possible qualification outcome is a certificate I Engineering (MEM10105). By undertaking additional units as a part of a specialisation study or as a School Based Apprenticeship could provide a pathway towards Certificate II in Engineering (MEM20105)

# Metal and Engineering

Course Hours	240 hrs
Unit Value	2 units Preliminary 2 Units HSC
Duration	2 years
Course Type	Category B Board Developed Course
ATAR (Australian Tertiary Admissions Rank)	If student sits for Optional HSC Exam
Work Placement	70 hours over two years

**Assessment:** This course is competency based and student performance is assessed against prescribed industry standards. Students are assessed as either 'competent' or 'not yet competent'. Holistic assessment projects will provide students with a number of opportunities to demonstrate competence and will include observation in class, practical demonstrations, portfolio development, workplace assessment, tests and other tasks.



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**Pathways Information:** Career pathways include mechanical and fabrication trades. Occupations include a variety of jobs working with metal such as a Fitter, toolmaker or welder. Other training routes include jewellery manufacture, lock smithing, boating services and marine craft construction. Further Training Pathways can include the Certificate III or Certificate IV in Engineering and Advanced Diploma courses in Engineering. University related progression may include a Bachelor of Mechanical Engineering, Bachelor of Marine Engineering or Bachelor of Mechatronics Engineering.



## UNITS REQUIRED FOR THE HSC

<b>HSC</b>	Manufacturing, engineering and related services industries induction
MEM09002B	Interpret technical drawings
MEM12023A	Perform engineering measurements
MEM12024A	Perform computations
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations

### CORE UNITS

MEM13014A	Apply principles of work, health and safety in the work environment
MEM14004A	Plan to undertake a routine task
MEM15002A	Apply quality systems
MEM16007A	Work with others in a manufacturing, engineering or related environment

### ELECTIVE UNITS:

MEM15024A	Apply quality procedures
MEM07032B	Use workshop machines for basic operations
MEM05004C	Perform routine oxy acetylene welding
MEM05012C	Perform routine manual metal arc welding
MEM12001B	Use comparison and basic measuring devices
MEM05005B	Carry out mechanical cutting
MEM11011	Undertake manual handling

*\*Correct at time of printing*

