

Metal Engineering A/V

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Students choosing Metal Engineering as a course of study will be studying units of work based around Metals and Engineering competencies from the national Training Package leading to completion of MEM10105 Certificate I in Engineering. Qualifications and competencies achieved are recognised nationally and allow for credit transfer to institutions such as CIT and TAFE.

Course Patterns

Students would normally study Metal Engineering across 4 semester units.

The units of study combine to provide a wide variety of experiences in designing and constructing a range of projects. Naturally there is an advantage in completing all four units. The last unit is very popular, as there is the free choice option for the final project. More advanced students will be able to negotiate projects.

What's in this course?

This course allows for students to complete set work and also some of their own artefacts in metal by negotiation. It covers topics such as sheet metal, light metal fabrication, metal machining, welding, heat treatment of metals, reading workshop drawings, OHS and flame cutting.

The workshop is well equipped and caters to a wide range of interests in the metal manufacturing and design field.

As well as set class work there are four Structured Workplace Learning units available which allow students to gain work skills and an understanding of the Metals and Engineering profession.

Some Engineering Drawing is also included in this course to cover communication and interpretation of engineering processes.

Units

All units below semester-length, value 1.0.

Introduction To The Metal Industry

Students gain experience in the Metal Workshop environment and develop their skills in Metal Engineering. Students are introduced to Manual Metal Arc Welding, carry out mechanical cutting, interpret technical drawings, perform engineering measurements, apply principles of Occupational, Health and Safety and use hand tools.

Metal Trade Skills

Students undertake larger jobs requiring accurate measuring, welding and basic fabrication skills. They further develop their workshop skills through the construction of metal projects such as car creepers and metal engineering workshop tools.

Metal Skills and Processes

Students complete tasks that develop safe and accurate, MIG and electric arc welding practices and fabrication techniques. They are introduced to machines such as the milling machine and metal lathe whilst learning to use accurate measuring instruments such as vernier callipers and micrometers.

Working Within the Metal Industry

Students consolidate their skills by undertaking larger more involved projects that require a greater level of skill and self direction.

Nationally recognised qualifications are awarded to students who complete the required competencies from the National Metals Training Package as well as completing structured work placements.

Students continuing study post college at CIT or other technical institution are entitled to credit transfer for competencies achieved for a course of study in a similar field. A Statement of Attainment is issued where the full qualification requirements are not met. A workplace assessor with appropriate industry skills, qualifications and currency is responsible for all delivery and assessment.

