

# Metal Products A

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The study of Metal Products provides opportunities for students to engage with emerging technologies, make connections with industry, apply standards and practices through the manufacturing of their metal projects.

This course is intended to meet the needs of students who have a general interest in industrial technology trades as well as those intending to choose a career pathway into traditional metal trades and related service industries.

Students develop relevant technical, vocational and interpersonal skills suitable for employment and further training.

### Course Patterns

Students would normally study Metal Products across 4 semester units.

## Units

All units below are semester-length with value 1.0

### Working with Metal

This unit is designed to familiarise students with workshop procedures using metal. Students learn to work safely with metal products, using and naming selected tools and materials correctly. Students learn to use selected tools and machinery to follow a given design to complete the projects undertaken in this unit. They learn communication skills such as following instructions, seeking help and recording processes as well as strategies to solve problems.

### Techniques in Metal Manufacture

This unit explores metal manufacturing skills. Students learn the fundamentals of working safely with a variety of metal manufacturing processes including gas and arc welding. They learn to use a range of metal work tools in a variety of fabrication processes to follow a given design to complete the projects undertaken in this unit. Students learn communication skills such as following instructions, seeking help and recording processes as well as strategies to solve problems.

### Welding and Cutting Skills

This unit is designed to develop welding and mechanical cutting skills. Students learn the fundamentals of working safely with gas and arc welding. Students learn to use a range of mechanical cutting machinery and processes, and continue to develop skills in welding. They investigate emerging technologies in global metal

manufacturing. Students follow a given design to complete the projects undertaken in this unit. They learn communication skills such as following instructions, seeking help and recording processes, as well as strategies to solve problems.

### Metal Project

This unit is designed to develop project management skills. Students create a project from a design brief or modify an existing design to meet a particular need, using skills such as machining and welding. They consider the choice of appropriate materials and techniques, the project timeline and the economic use of materials. They learn communication skills such as following instructions, seeking help and recording processes as well as strategies to solve problems.

## 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.

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

