

Practical Metalworking National 4 and 5

Why take this course? The Course is distinct in value in that it allows learners to develop practical psychomotor skills (manual dexterity and control) in a universally popular practical craft. It helps learners to develop safe working practices and to become proactive in matters of health and safety. It allows them to learn how to use a range of tools, equipment and materials correctly.

To succeed in this course, you need

You need to have an interest in metals and their properties and be willing to develop new skills in shaping, fabricating and joining metals.

As this course is based on practical work, good attendance is crucial to maximise your potential. From time to time, you will be expected to work hard in your own time to complete project work.

Course structure and Content

The course is divided into four areas of study which are mandatory: The following units must all be completed to a prescribed tolerance and standard.

- Bench Skills
- Machine Processes
- Fabrication and Thermal Joining
- Added Value Unit/ Course Assessment

Aims of the Course

The main things you will learn:

- Using, with guidance, a range of metalworking tools, equipment and materials safely and correctly for straightforward and familiar metalworking tasks.
- Reading and interpreting simple drawings and diagrams in familiar contexts.
- Measuring and marking out metal sections and sheet materials in preparation for straight forward cutting and forming tasks.
- Practical creativity in the context of simple and familiar metalworking tasks.
- Following, with guidance, given stages of a practical problem-solving approach to metalworking tasks.
- Applying knowledge and understanding of safe working practices in a workshop environment as they relate to simple and familiar tasks.
- Knowledge of the basic properties and use of common metals and metalworking materials.
- Knowledge of sustainability issues in a practical metalworking context

Assessment

This course has a substantial proportion that is practically based and is internally assessed, with external verification. To achieve a National 4 or National 5 in this subject a range of proscribed outcomes must be passed from the three units and either a course assessment (Nat 5) or the added value assignment (Nat 4). At National 5, the course assessment accounts for 70% of the final grade, with a terminal exam worth 30%. At National 4 the value added assignment accounts for 100% of the final grade and is internally assessed.

Essentials

Pupils will be expected to contribute to the cost of materials used.

Where might this course take me?

This course would suit students interested in further study related to practical craft work, modern apprenticeships or engineering. There are many transferrable skills that can be used in a range of different careers.