

## National 4 SfW Engineering Skills (Course Code: C243 74)

SCQF Level 4 (24 Credit Points)

### Why study SfW Engineering Skills?

Engineers use science and technology to come up with the answers to practical problems. They design, develop, build, fix and put together all types of things. There are all sorts of engineers working in hundreds of different industries. The engineering sector in Scotland employs around 97,000 people, 4% of the Scottish workforce.

Engineering Skills offers good opportunities if you enjoy:

- making and fixing things
- problem-solving
- working with your hands
- measuring and calculating sizes
- using tools and machinery.

### Career Pathways

To see what career areas this subject could lead to and the routes to get there, download and view these career pathways:

[Communications and Media](#)

[Engineering](#)

[Health and Medicine](#)

[Manufacturing Industries](#)

[Property and Facilities](#)

[Transport and Distribution](#)

### What do I need to get in?

Entry is at the discretion of the school or college, however you would normally be expected to have attained one of the following, or equivalent:

- an interest in engineering
- a ability to work in numeracy and literacy at SCQF Level 3
- some aptitude for graphical forms of communication.

### What will I study?

The course is made up of four compulsory units, each one taking 40 hours of study.

- Mechanical (6 SCQF credit points)
- Electrical/Electronic (6 SCQF credit points)
- Fabrication (6 SCQF credit points)
- Manufacture and Assembly (6 SCQF credit points)

You will learn about

- the tools, equipment and materials needed to make a product from metal
- basic fitting skills including measuring, marking, cutting, shaping, drilling and tapping
- testing, evaluating and reporting on a product you have made and assembled
- welding and joining techniques

Where will I take the course?

- You will usually train at a local college. Training sessions will take place for a set number of hours and weeks during term time.
- You will have to wear appropriate Personal Protective Equipment (PPE) on this course, for example: safety footwear (boots or shoes with steel toe caps), safety glasses and a boiler suit or overalls.

Work experience/placements

- You may be able to arrange a related work experience placement by speaking to your pastoral care or guidance teacher in school.
- You may be able to visit individual companies or hear about the industry from visiting speakers.

## How will I be assessed?

Assessment will be based on a range of practical activities in real or simulated workplace settings. Tutors will observe and keep records of your work. Some assessment may be done online using an e-portfolio system.

## Study Materials

## What can I go on to next?

Employment /Training

- A relevant Modern Apprenticeship leading to an SVQ at SCQF Levels 5 to 6.

Further/Higher Education

- A one year full time NC or NQ in engineering such as Engineering, Engineering Practice or Practical Engineering Skills at a local college of further education.

You may be able to progress to:

- **National 5 SfW Engineering Skills**

Further study, training or employment in:

- Communications and Media
- Engineering
- Health and Medicine
- Manufacturing Industries
- Property and Facilities
- Transport and Distribution