

## National 5 SfW Engineering Skills (Course Code: C253 75)

SCQF Level 5 (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](#)

[Transport and Distribution](#)

### What do I need to get in?

Entry is at the discretion of the school or college, however it would be beneficial if you could:

- show an interest in engineering
- have an ability to work in numeracy and literacy at SCQF Level 4
- have 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 and Fabrication
- Electrical and Electronic
- Maintenance

- Design and Manufacture

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.

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. 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.

## 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?

You may be able to progress to:

Employment /Training

- A Modern Apprenticeship leading to a Scottish Vocational Qualification (SVQ) at SCQF Levels 5 to 6 in engineering such as Fabrication and Welding Engineering, Mechanical Manufacturing Engineering, Performing Engineering Operations or Electrical and Electronic Engineering.

Further/Higher Education

- A one year full time National Certificate (NC) or National Qualification (NQ) in engineering such as Mechanical Engineering, Engineering, Electrical Engineering or Electronics at a local college of further education.

Further study, training or employment in:

- Construction
- Engineering
- Manufacturing Industries