National 5 SfW Energy (Course Code: C258 75)

SCQF Level 5 (24 Credit Points)

Why study SfW Energy?

Scotland has the oil and gas fields of the North Sea, and plenty of potential for wind, wave, and even solar power! Thanks to our ever-increasing need for more energy, and the need to find more environmentally-friendly ways of producing it, this sector offers good prospects for young people with the right skills. There will be a demand for highly skilled craft and technician apprentices, and graduates, in many types of engineering, as well as a growing demand for skilled plumbers.

The Energy sector includes oil and gas, renewable energies and power generation and transmission.

Energy offers good opportunities for those who enjoy:

- using their hands
- learning practical and technical skills
- solving problems.

Career Pathways

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

Engineering

What do I need to get in?

Entry is at the discretion of the school or college.

What will I study?

This course will introduce you to the different energy industries in the UK and help you to develop relevant practical and employability skills.

The course is made up of four compulsory units, taking a total of 140 hours, and one 20-hour optional unit.

The compulsory units are:

- An Introduction (6 SCQF credit points)
- Domestic Wind Turbine Systems (6 SCQF credit points)
- Domestic Solar Hot Water Systems (6 SCQF credit points)
- Employability and Careers (3 SCQF credit points)

The optional units are

- Energy and the Individual (3 SCQF credit points)
- Oil/Gas Extraction (3 SCQF credit points)
- Conventional Technologies and the Grid (3 SCQF credit points)

You will learn about:

- where we get our energy from, and the energy systems and processes that we use to make different forms of energy
- generating heat from solar energy
- assembling a small solar panel
- career opportunities in the energy sector
- designing and building small wind turbines
- your own carbon footprint and how to reduce it
- how oil and gas are created and extracted
- traditional energy generation plants and their impact on the environment

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

- Due to health and safety requirements it is often difficult to arrange an energy sector work experience placement for young people. However, where possible, you may be able to visit relevant engineering or utility (electricity, gas or water) companies and/or find out more from visiting speakers from the sector.

How will I be assessed?

Assessment will be based on a range of practical workshop 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 relevant Modern Apprenticeship.

Further/Higher Education

- A one-year full time course, such as a NC or NQ Course, in a related area of study - such as Engineering - at a college of further education.

Further study, training or employment in:

- Engineering