Engineering

Do you want to work in an industry that makes a very real impact on the world around us? Would you like to design aircraft, ships or cars, or find new ways of generating renewable energy to make sure that thousands of homes have heating and lighting?

Engineers use science and technology to come up with the answers to practical problems. They design, develop, build, fix and put all types of things together.

If you have an enquiring mind, enjoy problem solving and making things work, and like using technology to design new products, structures or systems, then engineering could be the career for you.

According to Engineering UK, the engineering industry employs 6.4 million people in the UK, accounting for 19% of all jobs. [1]

What areas can I work in?

There are all sorts of engineers working in hundreds of different industries. Areas include: aeronautical, chemical and material, electrical and electronic, mechanical and manufacturing, naval and marine, offshore and energy, and general engineering.

Related industries include science, information technology and construction, for jobs such as chemical engineer, telecommunications engineer and civil engineer.

To see the routes to getting into each of these sectors, take a look at our Career Pathway.

What kind of companies can I work for?

Possible employers include:

- energy and utility companies
- aircraft and aerospace engineering firms
- pharmaceutical, plastics, paper, textiles manufacturers
- food and drink manufacturers
- oil and gas companies
- general manufacturing firms
- telecommunications and IT companies
- defence
- marine
- Civil Service or National Health Service (NHS)
- transport.

What's the job market like?

In Scotland in 2024, there were 127,800 people working in the engineering sector [2] and 88,900 people working in

the energy sector. [3]

The mid-term forecast for Scottish engineering sector employment is predicted to decline by 0.6% between 2024 – 2027. However, it is also forecast that there could be a replacement demand for 4,300 people in the sector, as a result of workers leaving the market. [2]

In the mid-term (2024-2027) forecasts indicate a decline by 1.1% in the energy workforce. However, energy is forecast to account for 2.3% of Scotland's total requirement for people in this period, with a replacement demand of 8,400. In 2027, the top employing regions are forecast to be Aberdeen City and Shire, and the Glasgow College Region. [3]

There are challenges in the engineering and technology workforce, with certain groups underrepresented: women (16.9%), disabled people (14%), people from minority ethnic groups (14%) and people from lower socio-economic backgrounds (24%). Engineering UK states that more young people from all backgrounds are needed to create the diverse workforce required for the future. [1]

The UK is home to the largest offshore wind farm in the world (currently Hornsea, but will be overtaken by Dogger Bank once operational), and it's forecast that by 2030 there will be 104,401 jobs in offshore wind in the UK. [4]

75% of the UK's total energy will still be derived from oil and gas by 2030 [5] and between 60-87,000 jobs will still be needed in oil and gas. [6]

Facts and figures

- In the UK, from the academic year 2021/22, 72.3% of electrical and electronic engineering graduates were in full time employment 15 months after graduating, with 53.6% pursuing careers within engineering and building professions and 24.1% going into IT. [7]
- From that same period, 70.8% of mechanical engineering graduates were in full time employment 15 months after graduating. Of those, 65.1% were working as engineering and building professionals. For chemical engineering graduates, the figures were 67.9% and 52.5% respectively. [7]
- From that same period, 70.4% of mechanical engineering graduates were in full time employment 15 months after graduating. Of those, 59% were working as engineering and building professionals. [4]
- In 2024, the median starting salary for graduates in the engineering and industrial sector was £31,000, for chemical and pharmaceuticals, £32,000 and for oil and gas, £42,000. [8]
- Opito, the skills body for the energy industry, estimated that by 2025 there would be 4,500 new people would be employed in roles that didn't previously exist. [9]

Want to find out more?

Neon Futures and My Energy Future are excellent sources of information on careers in engineering and energy.

Sources

[1] Engineering key facts infographic, Engineering UK (22 May 2025)

[2] Sectoral Skills Assessment: Engineering, October 2024, Skills Development Scotland

[3] Sectoral Skills Assessment: Energy, October 2024, Skills Development Scotland

[4] Offshore Wind Skills Intelligence Report 2023, Offshore Wind Industry Council

[5] Economy and People Report 2024, OEUK (Offshore Energies UK)

[6] Powering up the Workforce: The future of the UK offshore energy workforce, RGU Energy Transition Institute (September 2023)

[7] What do graduates do? Prospects (part of Jisc) and AGCAS (2024/25)

[8] The Graduate Market in 2024, High Fliers

[9] My Energy Future website (June 2025)