



**Note:**  
Remember, this map is a guide and only illustrates some of the routes available. There are many more routes through experience and/or qualifications. For more information about qualifications visit [www.enginuity.org.uk/resources.cfm](http://www.enginuity.org.uk/resources.cfm)

Achieving Eng Tech, IEng or CEng is dependent on successful peer assessment of your competence and commitment. Please contact The Engineering Council UK (ECUK) for more information [www.engc.org.uk](http://www.engc.org.uk)

For more information about how you can compare qualifications across national boundaries, please view the routes into engineering section at [www.enginuity.org.uk](http://www.enginuity.org.uk)

## Choose your route into engineering...

The diversity of engineering means that whether your interests lie in film, TV, music, gadgets, travel, health, fashion, sport, design, building or the environment, there is probably an engineering role to match.

Engineering requires hands-on experience; as well as good grades in mathematics and sciences, and an understanding of innovation principles, processes, design and society.

Opportunities exist for professional engineers at all levels and engineering is one of the few career areas where there are clear professional progression routes through work-based learning. Put simply, you don't have to go to university to pursue a career in engineering.

Studying engineering is also great general education and unemployment among professional engineers and scientists is among the lowest of any sector in the country. Qualifications in science, technology, engineering and mathematics also have a perceived degree of difficulty which appeals to a wide variety of employers.



Engineers are frequently described by their category of registration (more information below) – so you may have heard of 'engineering technicians'. Engineering Technicians (Eng Techs) solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance by using science, engineering and mathematical principles. The work of engineering technicians is more application-oriented – they have often completed an Advanced Apprenticeship in, for example, engineering, construction and the built environment or ICT practitioners which combines working and learning over a period of one to five years.

### Professional recognition (registration)

Achieving professional registration enables engineers and technicians to use the titles 'Engineering Technician', 'Incorporated Engineer' or 'Chartered Engineer' (with the coveted EngTech, IEng or CEng letters after their name). This Engineering Council UK (ECUK) registration provides a visible sign of professional status and is open to everyone who can demonstrate competence to perform professional work to the necessary standards.

If you are interested in working towards registration, you should approach one of the professional engineering institutions licensed by ECUK to obtain details of the standard required and how to apply for membership and registration. You can find a list of the professional engineering institutions licensed by ECUK at <http://www.engc.org.uk/institutions/institutions.aspx> and look at [www.engc.org.uk](http://www.engc.org.uk) and the *Route Map* over the page for more information about EngTech, IEng and CEng.



### Pathways

Graduates with accredited degrees and experience of working in appropriate roles are encouraged to apply for registration as an Incorporated or Chartered Engineer. For entry onto an accredited engineering degree (see the Accredited Courses Database at <http://www.engc.org.uk/registration/acad/search.aspx>) students usually need: A Levels, or the equivalent, in mathematics and – depending on the discipline – physics and/or chemistry and design & technology. They also are likely to need GCSEs (grades A\* to C) or equivalent including mathematics, English, and sciences.

Those without an accredited degree but with extensive relevant experience can also apply to become an Incorporated or Chartered Engineer through an individual assessment. Would-be engineers can also enter Higher Education by taking a foundation degree (see [www.fdf.ac.uk](http://www.fdf.ac.uk) for details) or, for example, HNC, HND or through a Higher Apprenticeship route. See the *Route Map* over the page and [www.engc.org.uk](http://www.engc.org.uk) for further information about these routes and accredited degrees.

A key route for Engineering Technicians is to take Advanced Apprenticeships (England and Northern Ireland) or Modern Apprenticeships (Scotland and Wales). These lead to qualifications such as N/SVQ3, technical certificates and core skills and combine studying with employment. For entry into apprenticeships applicants will generally need a minimum of five GCSEs, including English, mathematics and science or technology subjects, often at A\* to C because there is very strong competition for places. Young Apprenticeship completion is usually strongly welcomed for entry to Advanced Apprenticeships and Higher Diplomas (in England) may also be welcomed. More mature applicants are also strongly welcomed.



If you are thinking of doing an apprenticeship, find out more information about engineering-related apprenticeship programmes at [www.apprenticeships.org.uk](http://www.apprenticeships.org.uk) and all apprenticeships:

If you live in England  
[www.apprentices.co.uk](http://www.apprentices.co.uk)

If you live in Scotland  
[www.careers-scotland.org.uk/Education/Training/ModernApprenticeship.asp](http://www.careers-scotland.org.uk/Education/Training/ModernApprenticeship.asp)

If you live in Wales  
[www.careerswales.com/youngpeople/choices16/apprenticeships\\_training.asp](http://www.careerswales.com/youngpeople/choices16/apprenticeships_training.asp)

If you live in Northern Ireland  
[www.delni.gov.uk/apprenticeshipsni](http://www.delni.gov.uk/apprenticeshipsni)

Please visit <http://yp.direct.gov.uk/diplomas/> for more information about The Diploma in England.

### Further information

The information here can be used as a guide to possible qualification routes. You can find out more about the qualifications that may lead to a career in engineering by accessing the *Route Map* at [www.ingenuity.org.uk/resources.cfm](http://www.ingenuity.org.uk/resources.cfm)

