

Career Route Map

for Engineering in Northern Ireland

Tomorrow's
Engineers

Where do I start?

LEVEL 1

School / College / Workplace

- GCSE D-G
- BTEC Level 1 / NVQ 1
- **Traineeships:** For 16-23 year olds qualified below Level 3



LEVEL 2

School / College / On-the-job training

- **Apprenticeship (Intermediate):** Engineering, IT, Construction, Built Environment, Manufacturing
- **GCSE / IGCSE A*-C:** Maths, Science (ideally triple science)
(Useful subjects: D&T, ICT, Computing, Engineering)
- **BTEC Level 2 / NVQ 2:** Engineering, Construction & Built Environment, Science, ICT



LEVEL 3

6th Form / College / On-the-job training

- **Advanced Apprenticeship:** Engineering, IT, Construction, Built Environment, Manufacturing
- **A level:** Maths, Physics
(Useful subjects: Chemistry, Computing, D&T, Further Maths)
- **IB Diploma:** Higher Level Maths, Physics
Chemistry – for chemical and biomedical engineering
- **Tech Level Qualifications:**
BTEC Level 3 / NVQ 3: Engineering, Construction & Built Environment, Science, ICT

What next?

Training and Education

Advanced / Higher Apprenticeship

- Available in a variety of industries including: Advanced Manufacturing, Aerospace, Automotive, Power, IT, Construction, Sustainable Technologies
- Combine workplace training with study
- Typically 3 to 4 years
- Can include vocational qualifications or a degree
- Approved by the Engineering Council

Higher National Certificate (HNC) / Diploma (HND)

- Vocational higher education qualifications, often taken whilst in employment
- Can be taken at F.E. colleges and universities
- Typically 1 to 2 years

Foundation Degree (FD)

- Usually undertaken as a part time qualification whilst in employment
- Typically 2 years

Further learning to Bachelor's level required for IEng registration

University Degrees

- In general engineering, a specific field of engineering, computer science, manufacturing or technology
- Accredited by the Engineering Council

Bachelor's Degree (BEng)

- 3 to 4 years
- Can include a year working in industry / a year abroad
- Can be followed by a 1-year MSc to register as a Chartered Engineer

Master's Degree (MEng)

- 4 to 5 years
- Can include a year working in industry / a year abroad

Progressing to...?

Professional Registration

Engineering Technician (EngTech)
or ICT Technician (ICTech)

Incorporated Engineer (IEng)

Chartered Engineer (CEng)

Visit the Engineering Council's website
at www.engc.org.uk

For details of all routes into engineering, go to:
www.tomorrowsengineers.org.uk

Where you can also find:
Case studies & job profiles
'Whose Crew Are You?' quiz
Careers materials & activities

and lots more...

