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 (ICT *Tech*)
- 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, quizzes, careers leaflets, posters, activities and postcards.

and lots more...

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