Career Route Map
for Engineering in Northern Ireland

Where do I start?

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

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

Level 3
- Advanced / Higher Apprenticeship: Engineering, IT, Construction, Built Environment, Manufacturing
- A level: Maths, Physics
- IB Diploma: Higher Level Maths, Physics

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

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
- Master’s Degree (MEng)
  - 4 to 5 years
  - Can include a year working in industry / a year abroad

Professional Registration

Engineering Technician (EngTech) or ICT Technician (ICTTech)

Incorporated Engineer (IEng)

Chartered Engineer (CEng)

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