Career Route Map for Engineering in Wales

Where do I start?

**School / College / Workplace**
- GCSE D-G
- Engineering Learning Programme Level 1 (LP): Theory & Practical and Personal Development in Engineering

**LEVEL 1**
- Learning Programme Level 2: Theory & Practical and Personal Development in Engineering
- Foundation Apprenticeship (employed status): Engineering, IT, Construction, Built Environment, Manufacturing
- Pathway to Apprenticeship (f/time student): Enhanced Theory & Practical and Personal Development in Engineering including work experience
- GCSE/GCSE A*-C: Maths, English/Welsh, Science
- Welsh Baccalaureate Intermediate
- BTEC Level 2 / NVQ 2: Engineering, Construction & Built Environment, Science, ICT

**LEVEL 2**
- GCSE D-G
- Engineering Learning Programme Level 3: Theory & Practical and Personal Development in Engineering
- Apprenticeship (employed status): Engineering, IT, Construction, Built Environment, Manufacturing
- A level: Maths, Physics (Chemistry)
- Welsh Baccalaureate Advanced

**LEVEL 3**
- GCSE D-G
- Engineering Learning Programme Level 1 (LP): Theory & Practical and Personal Development in Engineering
- Engineering Learning Programme Level 2: Theory & Practical and Personal Development in Engineering
- Foundation Apprenticeship (employed status): Engineering, IT, Construction, Built Environment, Manufacturing
- A level: Maths, Physics (Chemistry)
- Welsh Baccalaureate Advanced
- BTEC Level 2 / NVQ 2: 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

**Professional Registration**

**Engineering Technician (EngTech) or ICT Technician (ICTTech)**

**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...

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