



# Engineering: Career Route Map

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## School / FE College

### LEVEL 1

- **GCSE:** D – G
- Welsh Baccalaureate Foundation Skills Challenge Certificate (KS 4) (Applicable to Wales only)
- Engineering Learning Programme Level 1
- Essential Skills

### LEVEL 2

- **GCSE:** A\* – C, Maths – B, English – C
- Welsh Baccalaureate Foundation or National Skills Challenge Certificate (KS 4) (Applicable to Wales only)
- Engineering Learning Programme Level 2
- Essential Skills
- **BTEC Level 2 / NVQ 2:** Engineering, Construction and Built Environment, Science, ICT.

### LEVEL 3

- **BTEC Level 3 / NVQ 3:** Engineering, Construction and Built Environment, Science, ICT.

- **A Level:** Maths, Physics, Chemistry
- Welsh Baccalaureate Foundation / National Skills Challenge Certificate (Post - 16) (Applicable to Wales only)
- Engineering Learning Programme Level 3
- Essential Skills

## FE / HE Education

### FE: HIGHER APPRENTICESHIP (LEVEL 4 QUALIFICATION)

#### Recommended areas:

- Advanced Manufacturing, Power, IT, Sustainable Technologies, Mechanical and Electrical.
- Combining workplace and learning.

### FE: FOUNDATION DEGREE / HND (LEVEL 5 QUALIFICATION)

- Foundation Degree (FdEng) Energy & Power Technologies
- Foundation Degree in Nuclear Engineering (Power Generation)
- HNC General Engineering
- HNC / HND Electrical & Electronic Technology
- HNC / HND Mechanical Technology

### UNDERGRADUATE DEGREE (BENG / MENG – LEVEL 6 QUALIFICATION)

#### Recommended areas:

- Mechanical Engineering
- Electrical Engineering
- Power Systems
- Physics
- Nuclear Engineering
- Control & Instrumentation
- Chemical Engineering

## Engineering Roles

**FOR AN ENGINEERING ROLE A DEGREE IN THE RELEVANT ENGINEERING, TECHNICAL OR SCIENCE SUBJECT IS PREFERRED.**

Engineering is vital for the safe operation of a nuclear power station and a new plant will require nuclear, mechanical, and electrical engineers as well as chemists, environmental specialists and radiation protection specialists. Engineering staff act as technical advisors to the operations team, and play a vital role in the long term health of the plant.

### Examples of posts and roles:

**ELECTRICAL ENGINEER**

**MAINTENANCE ENGINEER**

**NUCLEAR ENGINEER**

**MECHANICAL ENGINEER**

**PROCESS CONTROL ENGINEER**

**CONTROL & INSTRUMENTATION ENGINEER**