

## Subject: Engineering

**Level: BTEC National Extended Certificate  
(Level 3)**

Supported by:



### Entry Requirements

Students will need to have a good command of English, to at least a grade 4 at GCSE; and a grade 5/6 in Mathematics. Studying Engineering or Design and Technology at GCSE is not required, however having a good understanding of scientific principles is advised.

### Who is the course for?

This qualification is suitable for learners aged 16 and above. The qualification is designed for learners who want to go on to higher level studies or into an apprenticeship role.

### How will I learn?

The Level 3 BTEC Extended certificate is a full time 2 year course of study which will develop specialist knowledge, practical skills and understanding within a vocational area and gives you a qualification which is the equivalent to one A Level.

Students studying this course will be taught through practical and theoretical styles of teaching, using cutting edge technology to enhance students learning experiences. Students start to work with local employers to gain wider knowledge about how their course can be used in industry and how relevant their work is to their future.

### Further Education & Career Pathways:

BTEC National Extended Certificate in Engineering is a nationally recognised qualification that has been accredited and acknowledged by some of the country's leading universities. Students studying this course regularly go on to study Level 4/Higher level apprenticeships in welding, machine and mechanical engineering.

### Course Outline

The course is broken down into four units, three of which are mandatory, they are as follows:

Unit 1 – Engineering Principles (External exam, marked by Pearson)

Unit 2 - Delivery of Engineering Processes Safely as a Team (Internal Coursework, Marked by your teacher)

Unit 3 - Engineering Product Design and Manufacture (External task, set and marked by Pearson)

# COURSE INFORMATION

The optional unit can be one of the following, which are all internal coursework, marked by your class teacher:

Unit 9 Work Experience In The Engineering Sector

Unit 10 Computer Aided Design In Engineering

Unit 11 Engineering Maintenance And Conditional Monitoring Techniques

Unit 12 Pneumatic And Hydraulic Systems

Unit 19 Electronic Devices And Circuits

Unit 25 Mechanical Behaviour Of Metallic Materials

Unit 30 Mechanical Measurement And Inspection Technology

Unit 35 Computer Programming

Unit 41 Manufacturing Secondary Machining Processes

Unit 44 Fabrication Manufacturing Processes

Unit 45 Additive Manufacturing

**Course Leader:** Mr Percival

