

BTEC Level 3 Engineering



This course is designed to provide an understanding of the world of engineering. It is a mix between practical engineering, designing, CAD techniques and Engineering Principles. These core skills will provide an excellent foundation of anyone who wishes to follow a profession in any aspect of engineering and industrial design.

To assist with this we work closely with many high tech engineering companies in the area. We have a unique partnership with Moog Controls who manufacture products used on jet engines and Formula 1 cars and also work with GE Aviation, Spirax Sarco amongst others. The Engineering course comprises of three compulsory units including a formal exam on the mathematics behind engineering principles, a design and development task and an investigation into industrial and real manufacturing. We also take an additional unit which focuses on CAD techniques (Solidworks) to develop a wide range of complex strategies in industrial design. There is an additional option to take professional exams in this aspect.

Subject specific entry requirements

In addition to the standard entry requirements, the following subject entry criteria should be met:

- Good Maths and Science Skills (at least grade 5 in both however grade 6 would be preferred)
- Grade 5 or better in a suitable Technology subject (such as GCSE or Tech Award in Engineering) if taken

Exam Board

Pearsons (Edexcel) Extended Certificate in Engineering 2016 (RQF)

<https://qualifications.pearson.com/en/qualifications/btec-nationals/engineering-2016.html>

Assessment

The course is assessed by internal assignments (Unit 2 and 10), a formal exam (unit 1) and a design task completed under controlled conditions. You should enjoy and be good at working independently, meeting deadlines and solving problems. The qualification is graded Pass, Merit and Distinction and has equivalence with normal A level grades. A distinction is graded the same as an A grade and gains the same number of UCAS points.

The Edexcel BTEC Level 3 National Certificate in Engineering is a 360 guided learning hour qualification that consists of 3 mandatory units and one optional unit	
Unit 1. Engineering Principles; Understanding the Maths and Science behind Engineering	2 hr Formal Exam (taken in Jan Y13) 33% of total Qualification
Unit 2 Manufacturing techniques; Investigating Industrial manufacturing and planning and producing a batch of items	Internally assessed unit 16% of total Qualification
Unit 3 Engineering Design; Investigating and developing a product based on a client needs	Externally assessed 8hr controlled assignment based on an exam set theme 33% of the total Qualification
Unit 10: Computer Aided Design in Engineering: Developing skills in using CAD software effectively	Internally assessed unit 16% of total Qualification

This course will lead to:

This course will provide the perfect foundation for any engineering profession. If you are considering an apprenticeship or university course within engineering or any allied field this would give you a real insight in what to expect.