

BTEC Engineering



WHAT IS IT?

We offer a coursework based alternative to Physics A Level with the BTEC Extended Certificate in Engineering. This is a two-year course assessed by a combination of college marked coursework assignments, board marked assignments, and examination. It is accepted in lieu of the A-level physics for entry to many engineering apprenticeships. If taken with A-level Mathematics it is accepted by various universities for entry to engineering especially foundation degrees.

WHY SHOULD I STUDY ENGINEERING?

You will have a strong interest in hands-on and theoretical engineering and are likely to be considering a higher-level degree apprenticeships in engineering after college.

USEFUL SKILLS & INTERESTS

You should enjoy problem solving and thinking, especially thinking about how things work at a fundamental level. Ideas and relationships are expressed mathematically so a facility with Mathematics is very desirable.

COURSE STRUCTURE & CONTENT

Like most subjects at this level Engineering aims to give a broad introduction to higher level concepts. You would study:

1. Engineering Principles – including advanced mathematics
2. Delivery of Engineering Processes Safely as a Team
3. Engineering Product Design and Manufacture
4. Digital and Analogue Circuits

The course includes mathematical techniques, underlying physics & electronics theory along with workshop time. You will use CAD software for mechanical and electronic designs.

HOW WILL I BE ASSESSED?

By a combination of written exams marked by the board, internally marked assignments and externally marked assignments.

COURSE COMMITMENT

Students will be expected to work independently, outside the classroom, for about 4 hours per week. This will allow time to complete assignments set in class as well as to review current work regularly and revise for the external examinations.

COURSE COSTS

None, though you will need a scientific calculator which can be purchased for less than £10 at college.

ENTRANCE REQUIREMENTS

For entry on to this course you will need to meet the college standard entry requirements for Advanced Level study of 5 GCSE passes (grades 4 - 9) including Combined Science or Physics, Maths and English at a minimum of a grade 4.

Whilst it is not essential to take Engineering alongside any other A Levels you should strongly consider A Level Mathematics. A Level Maths helps a lot and may be essential for entry to some degree level courses. Other useful subjects include Chemistry, Computer Science, Design, Geology, ICT and Physics.

PROGRESSION ROUTES

Engineering is an excellent preparation for the more technical apprenticeships in engineering. Universities are happy to take students onto foundation / degree level engineering from the BTEC if it is taken along with A Level Mathematics.

FURTHER INFORMATION

If you have any further questions, please contact the subject leader Ian Robinson.

*Please note that the information in this leaflet is correct at the time of publication, but circumstances may arise which cause us to revise our provision.
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