



CTEC ENGINEERING

Exam Board: OCR

Why study Engineering?

Engineers address real-world problems. They fix things that are broken, improve those that work and come up with new inventions. Engineers help move the world toward a brighter future by solving problems with pollution, finding ways to harness [new energy sources](#), producing new medicines, and building new structures. Engineers apply principles of ethics to try to find the *best* answer to a question. Engineers help people.

Course Requirements:

You are required to have grade 5 in foundation or higher Maths GCSE, Science grades at least 5 (specifically Physics) with at least Grade 4 in English Language.

Course Structure:

This course is comprised of four exam units and two coursework units. Students will take two exams and submit one unit of coursework in each year. Students can retake each exam unit once excluding those they take in the final exam season of year 13.

Year 12:

Will complete exam units; 1 Mathematics for Engineers and 2 Science for Engineers. They will also submit one coursework unit on Material Science. In the first term two out of three lessons per week will be dedicated to unit 2 science and one to unit 1 mathematics. Provided they demonstrate sufficient understanding of the unit 2 Science content they will be entered for this exam in January. After January the class will continue focus on maths one lesson per week and move onto Material Science coursework in the other two lessons. This unit will comprise of both theoretical and practical elements and be embedded in real life application to the field of Materials Engineering.

Year 13:

Will complete exam units; 3 Mechanical Engineering and 4 Electrical Engineering. They will also submit one coursework unit on Business for Engineers. Two out of three lessons per week will be dedicated to the exam units and one lesson per week to the coursework unit. These units build on year 12 content and embedded the mathematical and scientific principles learned in real life applications and examples to best prepare students for a career in the field of engineering.