

Engineering Level 3 Cambridge Technical Extended Certificate in Engineering (1 A level equivalent)

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Key topics covered

Unit 1 – Mathematics for Engineering This unit will develop your knowledge and understanding of the mathematical techniques commonly used to solve a range of engineering problems.

Unit 2 – Science for Engineering This unit will focus on the science that supports engineering,

Unit 3 – Principles of Mechanical Engineering This unit explores how machines and structures are constructed using the principles of mechanical engineering and made up of components and mechanisms working in combination.

Unit 4 – Principles of Electrical and Electronic Engineering This unit covers how electrical and electronic engineers design, test and produce electronic systems and devices that are present in almost every aspect of modern life.

Unit 20 – Business for Engineering This unit develops understanding of how engineering businesses of all sizes survive through innovation, entrepreneurship and investment. Learners will learn about project management tools and develop an understanding of financial planning techniques and financial analysis in an engineering context

Unit 22 – Engineering and the Environment This unit covers environmental issues and sustainability in modern engineering. From legislative, regulatory and ethical perspectives, minimising the impact of engineering on the environment is a high priority.

Recommended Textbook and/or resources

BS 8888 Technical product documentation and specification Multimedia – Inc. YouTube/TED talks.

Technologystudent.com

Focus on Design and Technology Link: http://www.focuselearning.co.uk/u/1571/xqrmnvF yuFraBjFCxErfidigBEorjgzbx

By visiting: www.focuselearning.co.uk Username: student@hellesdonhigh1571 Password: 3kop7axqd

Why Study the Subject/what students Like about it

To provide you with an exciting and practical course that enables you to produce high quality products. During the course, you will develop skills in designing, practical application, manufacturing techniques and problem solving. You will be utilising knowledge from other subjects and you are encouraged to work outside the classroom to get a feel for real life situations and contexts.

"Engineering offers us the chance to make the world a better, safer and more exciting place; this is what attracts me to the subject" – Y13 student

Opportunities outside the classroom

Talks from external providers on university courses, subject content or career prospects

Links to employers and virtual work experience

Future progression/career routes

Beyond level 3 you could progress to a higher or degree apprenticeship which normally includes an HND, HNC, foundation degree or bachelor's degree.

