

REVISED GCE AS & A LEVEL
Student Guide
Technology and Design

For first teaching from September 2008

For first award of AS Level in Summer 2009

For first award of A Level in Summer 2010

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Student Guide: Technology and Design

In GCE Technology and Design: Systems and Control you will study technology and design in a range of contexts including home, school, recreation, community, business and industry. You will learn about harnessing the resources of people and the earth we inhabit through the creation of products and/or systems.

You will also investigate and analyse existing products and design manufacture and evaluate your own product. As well as studying product design you will study either electronic and microelectronic control systems or mechanical and pneumatic control systems.

The **AS** (Advanced Subsidiary)/**A2** structure of this GCE means you can study for the **AS** Level award, completing units AS 1 and AS 2 and then decide if you wish to continue to **A2** Level where you will complete the two additional units A2 1 and A2 2. This will lead to an award for the **full Advanced GCE**.

Q. Why study GCE Technology and Design?

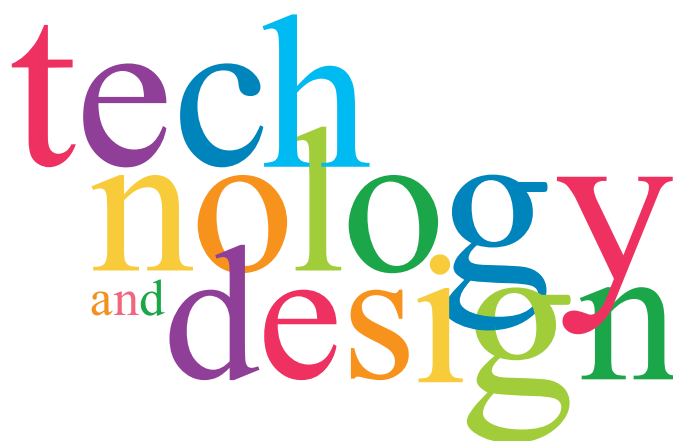
If you have an interest in the area of product design and product development, electronic or mechanical systems then this is the course for you. You can take a one year AS course as a stand alone qualification or you can continue your study for another year and gain the full A Level qualification. Taking GCE Technology and Design would also be beneficial to you when combined with other subjects. The fields of Art, ICT and Physics are just a few of the areas which would be enhanced by the skills and knowledge gained through the study of Technology and Design.

Q. What do I need to be able to take this course?

Although there are no specific criteria for students taking this course, it is assumed that you will have studied Technology and Design or a related subject at GCSE Level. You should also have an interest in the subject or a desire to study it at a higher level.

Q. What will I study?

You will complete 4 assessment units at GCE Technology and Design: Systems and Control. There is one examination unit and one coursework unit at both AS and A2 level.



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AS 1: Product Design and Systems and Control	In this unit you will learn about product design including materials and their processing with an area of systems and control. Section A: Product Design and Control is compulsory. You will also study a specialist area; either Section B: Electronic and Microelectronic Control Systems or Section C: Mechanical and Pneumatic Control Systems.
AS 2: Coursework: Product Development	In this unit you will investigate and analyse an existing product, re-design, manufacture, test and evaluate the product. You will produce a 3 dimensional model or proto type which represents the practical outcome of the product analysis and development. You will also produce a folio containing both written and graphical information (this can be presented in electronic format).
A2 1: Systems and Control	This unit is an in depth study of Systems and Control. You will have the opportunity to further the knowledge and understanding which you have gained from the optional sections in AS 1. You will study either Electronic and Microelectronic Control Systems or Mechanical and Pneumatic Control Systems.
A2 2: Coursework: Product – System, Design and Manufacture	In this unit you will manufacture a technological product or system which provides a solution to an identified problem or need. You will also produce a folio containing both written and graphical information (this can be presented in electronic format).

Q. How is GCE Technology and Design assessed?

Unit	Type of Assessment
AS 1: Product Design and Systems and Control Worth 50% of AS 25% of A Level	An externally assessed 2 hour examination. <i>Available in January and summer series of examinations.</i>
AS 2: Product Development Worth 50% of AS 25% of A Level	An internally assessed and externally moderated 45 hour coursework unit. <i>Available in the summer series of examinations.</i>
A2 1: Systems and Control Worth 50% of A2 25% of A Level	An externally assessed 2 hour examination. <i>Available in January and summer series of examinations.</i>
A2 2: Product-System, Design and Manufacture Worth 50% of A2 25% of A Level	An internally assessed and externally moderated 60 hour coursework unit. <i>Available in the summer series of examinations.</i>

Q. What can I do with a qualification in Technology and Design?

GCE Technology and Design can lead to study in further or higher education in a wide range of areas such as engineering and design. There are a number of career options open to students of Technology whether they go directly into employment or choose to continue their studies at a higher level. Some of the fields open to Technology and Design students include engineering, medical technology, teaching, design, architecture, graphic design and DTP.

How can I find out more?

There are a number of ways that you can find out more about studying Technology and Design.

These include:

- Teachers at your school or college
- Students who are already studying the subject
- www.ccea.org.uk/technology
- The Design and Technology Association www.data.org.uk
- Careers advisor
- UCAS www.ucas.com or CAO www.cao.ie for details on entry requirements for university courses

To view the full specification and the full range of support material available for GCE Technology and Design, please visit the Technology and Design microsite www.ccea.org.uk/technology

