



Engineering



advancing learning, changing lives

GCE

The Edexcel GCE in Engineering gives students an understanding of different areas of engineering, helping them to build and apply knowledge within a wide variety of engineering contexts.

Why choose the Edexcel GCE in Engineering?

Edexcel is the only awarding body to offer this new qualification. It can be taken alongside GCE Maths or any of the science GCEs. On a stand-alone basis, its AS level provides a valuable insight into engineering for students intending to pursue a wide range of careers.

The Edexcel GCE in Engineering helps students to:

- understand the nature and demands of different areas of engineering
- develop an understanding of engineering technologies and the complex sub-groups that make up engineering and related industries

- apply their understanding of engineering and its practical and technological aspects, through project-based study of engineering design, production, commissioning and maintenance.

Students design and manufacture engineering products at both AS and A2 level. They will also examine existing engineered products and investigate the role of the engineer in their design or manufacture.

The A2 external assessment is based on three practical engineering activities for which Edexcel sets the brief. The GCE in Engineering is a natural progression for students who have completed a GCSE (Double Award) Engineering and is also suitable for those who have taken a GCSE (Double Award) in Manufacturing.

Engineering

GCE

Course structure

The qualification has an AS/A2 structure. It can take the form of:

- a Single Award AS GCE (3 units)
- a Single Award Advanced GCE (6 units)

Progression

The Edexcel GCE in Engineering qualifies for UCAS points. It gives students a wide choice of progression options into further study, training or relevant employment.

Students who successfully complete the qualification will be well equipped to move onto degrees, BTEC Higher National Diplomas or NVQs.

Comprehensive support, every step of the way

- A wide range of tutor support materials will be available from spring term 2005.
- Free events introducing the new GCEs and training events to prepare for teaching the new qualifications.
- Further information is available from our regularly-updated website at www.edexcel.org.uk/gce.

We are constantly examining new ways to provide support, and would welcome your suggestions.

AS Units

Unit 1 – Engineering Materials, Processes and Techniques

Students become familiar with a range of engineering materials and processes, and how these can be used to manufacture high quality finished products (externally assessed)

Unit 2 – The Role of the Engineer

Students investigate the role of a professional engineer responsible for the design or manufacture of an engineered product or service (internally assessed)

Unit 3 – Principles of Design, Planning and Prototyping

Students produce a design solution to a client brief and demonstrate its effectiveness through developing a prototype (internally assessed)

A2 Units

Unit 4 – Applied Engineering Systems

Students look at ways in which a systems approach can be used to provide engineering solutions. Edexcel will set a brief asking students to complete three practical activities under controlled conditions. Teachers mark the work against the assessment criteria in the specification, and Edexcel sample-moderates the work (externally assessed)

Unit 5 – The Engineering Environment

Students learn how regulations and codes of practice affect the design and manufacture of engineering products or services (internally assessed)

Unit 6 – Applied Design, Planning and Prototyping

Students draw upon their newly-gained engineering expertise to design, develop and manufacture an engineering solution to a given client brief (internally assessed)

advancing learning, changing lives

Contact us

For further information and to find out details of your regional office, please contact us at:

Edexcel
190 High Holborn, London WC1
Tel: 0870 240 9800
Minicom: 0870 240 3941
Fax: 020 7758 6960
Enquiries: <http://enquiries.edexcel.org.uk>
www.edexcel.org.uk

Further copies of this publication are available from Edexcel Publications:

Tel: 01623 467467
Fax: 01623 450481
Publication code: Z015697

About Edexcel

Edexcel is one of the UK's largest providers of qualifications, with the widest portfolio of academic and vocational qualifications. Regulated by the Qualifications and Curriculum Authority (QCA) to offer qualifications, Edexcel works with over 5,500 education partners in over 110 countries.

edexcel 