



Oxford Cambridge and RSA

Statement of purpose

Who is the **OCR Level 3 Cambridge Technical Extended Diploma in Engineering** for?

Qualification title: OCR Level 3 Cambridge Technical Extended Diploma in Engineering

Qualification number:

Who is the **OCR Level 3 Cambridge Technical Extended Diploma in Business** for?

This qualification is for you if you're 16 years old or over and you want to specialise in engineering. This vocational qualification will help you to progress onto an engineering-related apprenticeship or employment within the engineering sector. This will also allow you to progress onto a qualification in the same subject area at a higher level in Higher Education (HE).

What does this qualification cover?

There are two specialist pathways that you can choose, depending on the career you wish to pursue which are:

- **Mechanical, Electrical and Electronic Systems Design and Engineering**
- **Engineering Automation Control and Manufacturing Processes**

Each pathway allows you to study engineering in a context that enables you to learn and be assessed in ways that are practical and relevant to the engineering sector.

You will learn by applying your skills, knowledge and understanding such as mathematics and scientific principles of engineering, and the principles of mechanical and electrical/electronic engineering. The qualification will enable you to acquire a range of transferable skills and knowledge which are highly regarded by employers and higher education providers. It will also give you an appreciation of what happens in the workplace and will also help to prepare you for employment in this sector.

You will be required to take 18 units. 15 units are mandatory, with 3 more optional units needed.

Everybody will take units on:

- Mathematics for Engineering
- Science for Engineering
- Principles of Mechanical Engineering
- Principles of Electronic and Electrical Engineering
- Project delivery for Engineering
- Promoting continuous improvement

For the Mechanical, Electrical and Electronic Systems Design and Engineering pathway, you will take units on:

- Electrical and Electronic Design
- Circuit Simulation and Manufacture
- Electrical Devices
- Electrical Operations
- Mechanical Design
- Computer Aided Design
- Materials Science
- Mechanical Simulation and Modelling
- Mechanical Operations

For the Engineering Automation Control and Manufacturing Processes pathways, you will take units on:

- Computer Aided Design
- Materials Science
- Mechanical Operations
- Automation Control and Robotics
- Electrical, Mechanical, Hydraulic and Pneumatic Control
- Systems and Programming
- Computer Aided Manufacture
- Lean and Quality
- Inspection and Testing

For the unit on Promoting continuous improvement, you will draw on your skills, knowledge and understanding acquired through other units and apply what you have learned to Promoting continuous improvement; providing opportunities for synoptic assessment.

What could this qualification lead to?

This qualification is a similar size to three A levels and can be taken in two years. This gives you the breadth of engineering skills and knowledge to progress into employment where you could continue to study or a degree programme in HE. The Extended Diploma in engineering will form your complete study programme in preparation for progression into employment. The qualification will provide the subject specific skills, knowledge and understanding and a range of transferable skills that you will require for employment in engineering roles such as electrical and electronic engineering; mechanical engineering and design; automation, systems and control; and manufacturing.

- **Mechanical, Electrical and Electronic Systems Design and Engineering pathway** will lead to specific job roles such as: Mechanical technician, electrical/mechanical technician, electrical engineering technician.
- **Engineering Automation Control and Manufacturing Processes pathway** will lead to specific job roles such as: CAD/CAM technician, trainee CAD draughtsperson, maintenance technician.

You would take the Certificate, which is the same size as an AS Level, if you were looking for a smaller qualification that could complement the main subjects in your study programme and prepare you for further study.

The Extended Certificate is similar in size to one A level and can be taken in one or two years. This gives you the flexibility to take other qualifications, vocational or academic, to progress to a degree programme in HE or into employment where you could continue to study.

The Foundation Diploma is similar in size to one and a half A levels. The Foundation Diploma qualification will give you a broad base of most fundamental principles of engineering and develop a range of practical engineering skills to prepare you for employment or to move onto an apprenticeship programme in that area. It will also prepare you to study relevant engineering degrees in a HE institution

The Diploma is a larger qualification, similar in size to two A levels, which gives you the flexibility to take other qualifications, vocational or academic. The Diploma allows you to tailor your learning to a specific area in the engineering sector by selecting a specialist pathway (Electrical and Electronic Engineering, Mechanical Engineering and Design, Automation, Systems and Control or Manufacturing), to prepare you for employment or to move onto an apprenticeship programme in that area. It will also prepare you to study relevant engineering degrees in a HE institution.

Is this qualification right for me?

This qualification is part of a suite of Cambridge Technicals in Engineering at Levels 2 and 3. Normally, you would choose one of the OCR Level 3 Cambridge Technicals in Engineering because you have successfully gained Level 2 qualifications in a similar or related subject.

There are no formal entry requirements for this qualification, but, ideally, you will typically have GCSEs at grade C or above including maths and English.

There are five sizes of qualification available in the Level 3 Cambridge Technicals in Engineering suite:

- OCR Level 3 Cambridge Technical Certificate in Engineering
- OCR Level 3 Cambridge Technical Extended Certificate in Engineering
- OCR Level 3 Cambridge Technical Foundation Diploma in Engineering
- OCR Level 3 Cambridge Technical Diploma in Engineering
- **OCR Level 3 Cambridge Technical Extended Diploma in Engineering**

Who supports this qualification?

The following employers support this qualification:

- Jaguar Land Rover
- Festo
- Siemens
- JCB
- Society of Operations Engineers

Details of this support can be found on the OCR website:

<http://www.ocr.org.uk/qualifications/by-type/vocational-education-and-skills/performance-table-information/>

Further information

To find out more about the OCR Level 3 Cambridge Technical Extended Diploma in Engineering please refer to the centre handbook available on the OCR website.

If you have any other queries please contact vocational.qualifications@ocr.org.uk

About us

OCR is a leading UK awarding body. We provide qualifications which engage people of all ages and abilities at school, college, in work or through part-time learning programmes.

Our general and vocational qualifications equip you with the knowledge and skills needed for the future, helping you to achieve your full potential.