



Level: BTEC National Extended Certificate in Engineering

The Pearson BTEC Level 3 National Extended Certificate in Engineering is designed for learners who are interested in a career in the engineering sector and want to progress to further study in the sector.

What will I learn on this course?

Unit 1: Engineering Principles – externally assessed. This unit will develop your mathematical and physical scientific knowledge and understanding to enable you to solve problems set in an engineering context.

Unit 2: Delivery of Engineering Processes Safely as a Team – internally assessed. In this unit, you will examine common engineering processes, including health and safety legislation, regulations that apply to these processes and how individual and team performance can be affected by human factors.

Unit 3: Engineering Product Design and Manufacture – externally assessed. In this unit, you will examine what triggers changes in the design of engineering products and the typical challenges that engineers face, such as designing out safety risks. You will learn how material properties and manufacturing processes impact on the design of an engineering product.

Unit 4: Manufacturing Secondary Machining Processes - In this unit, you will cover the technology used in, and characteristics of, a range of traditional machining processes such as turning, and specialist machining processes.

Who would be a successful student of the Extended Certificate in Engineering?

This course will appeal to students who:

- are interested in following a career in the engineering sector;
- want to progress to higher education;
- are happy to work independently;
- are keen to develop and improve their CAD/CAM skills and their problem-solving skills linked to an engineering project outcome.

Extra-Curricular activities:

These could include:

- visits to local engineering companies;
- visits to the Design, V&A and Science Museums;
- study days at supporting universities

Career opportunities:

Progression from this qualification is either to an employer or further or higher education for engineering sector courses such as degrees in Engineering, Electronics Engineering, Computer Science or Mathematics.

This qualification also supports progression to job and apprenticeship opportunities in the engineering sector. Jobs that are available in these areas include:

- aerospace engineer
- automotive engineer
- contracting civil engineer
- control and instrumentation engineer
- maintenance engineer
- mechanical engineer
- nuclear engineer