

# Engineering

## BTEC Level 3 National Extended Certificate

Contact Person: Mr J Kirwan

### Course Outline:

Engineering at Nailsea is a dynamic, exciting subject that offers clear routes forward to further study and a career in the engineering sector. The course is divided into three clear competencies.

Firstly, you'll develop your mathematical and physical scientific knowledge and understanding by studying Engineering Principles. This creates a clear foundation, enabling you to solve complex problems in an engineering context.

The second key module is focused on common engineering processes, looking at regulatory systems, health and safety and how individual and team performance can be affected by human factors.

In module 3 you will get to examine product designs and manufacturing processes in detail. This fascinating unit will provide real-world opportunities to examine what triggers changes to the design phase of engineering products and the typical challenges that engineers face, including how to 'design out' safety risks.

Lastly, there is a detailed CAD Engineering module. You will use CAD software and hardware to produce multi-layered, complex 2D and 3D drawings.

To excel in engineering, you'll need strong maths skills, problem-solving abilities, and proficiency in technical tools. Critical thinking, communication, and attention to detail are essential. A keen interest in the subject and a passion for continuous learning are also key for driving innovation in this dynamic field.



### Progression Post 18

After completing A BTEC in engineering you have several pathways available.

You could pursue a bachelor's degree in engineering at a university, specialising in a specific discipline like civil, mechanical, electrical, or computer engineering. This potentially could lead to professional engineering roles.

Alternatively, you might consider an engineering apprenticeship which offers practical, hands-on training while earning a qualification. Engineering students at Nailsea go on to work in a variety of contexts, including the aerospace and automotive industries.

**Qualification:** BTEC Coursework: 33.5% Examinations: 66.5%

**Examination Board:** Edexcel