

Level 3

# Mechanical Engineering

BTEC National Diploma



**Duration**

2 years



**Location**

Rush Green Campus



**Starting**

Sept 2025



**Age**

16-18



**Careers**

Engineering

## Course fees per year

AGE 16-18

**FREE**

Contact us to discuss what Financial support is available.

## Overview

Studying the BTEC Level 3 National Diploma in Mechanical Engineering offers a robust foundation for students interested in the engineering field.

This course provides a comprehensive introduction to mechanical engineering, covering essential principles and practices. It is an excellent starting point for those who wish to enter the engineering sector.

## What you'll learn

The BTEC Level 3 National Diploma in Mechanical Engineering provides a comprehensive education in mechanical engineering principles and practices. This one-year course is designed to equip students with both theoretical knowledge and practical skills, preparing them for further education or entry-level positions in the engineering industry.

The course consists of mandatory and optional units, covering a wide range of topics essential to modern engineering. Units include:

- Engineering Principles
- Delivery of Engineering Processes Safely as a Team
- Engineering Product Design and Manufacture

- Applied Commercial and Quality Principles in Engineering
- Computer-Aided Design in Engineering
- Additive Manufacturing Processes
- Pneumatic and Hydraulic Systems
- Programmable Logic Controllers (PLCs)
- Industrial Robotics

## Assessments / Exams

You will complete practical assessments, coursework, assignments and external exams.

## Entry requirements

You will need to have GCSE Maths, English Language and two additional subjects at grade 4 (C) or above.

As part of the application process you will also be asked to explain why you want to study this course, so that we can ensure any course offer made aligns to your career goals.

## What this course leads to

Upon completion, learners can progress to the BTEC Level 3 National Extended Diploma in Mechanical Engineering, which provides further depth and specialisation. The course is a combination of theoretical knowledge and practical application, ensuring that students not only understand key concepts but also know how to apply them in real-world scenarios. Mechanical engineering skills are highly valued across a wide range of industries, including automotive, aerospace, manufacturing, and energy. The blend of theory and practice makes this course ideal for creative minds who enjoy solving technical problems and innovating within the field.

Visit this course on our website: <https://barkingdagenhamcollege.ac.uk/find/courses/0000012478>

For further information please contact the college: <https://barkingdagenhamcollege.ac.uk/contact>