



# 6TH FORM ENGINEERING

If you choose the Engineering pathway you will study 3 courses:

- NVQ Performing Engineering operations
- BTEC Extended Certificate in Engineering
- City and Guilds Technical Certificate in Engineering



Pearson  
BTEC



# NVQ PERFORMING ENGINEERING OPERATIONS

EAL (EXAM BOARD) IS THE SPECIALIST SKILLS PARTNER AND AWARDING ORGANISATION FOR INDUSTRY. EAL ARE KNOWN FOR THEIR RESPECTABLE NVQ COURSES WITH THIS COURSE BEING ONE OF THE COURSES THAT IS RESPECTED WITHIN THE ENGINEERING INDUSTRY.

## Overview

This qualification covers the fundamental skills and knowledge common to all engineering practices. It offers an extensive choice and flexibility for learners to demonstrate competence in one or more of a broad variety of engineering activities. The qualification also caters for those providing technical support, including project planning and contributing to business improvement.

## Requirements for the course:

Grade 3 or above in English and Maths

## Career Opportunities

The qualification is applicable to a wide variety of engineering occupations within the sector. Many of our students go on to study Engineering at a higher level at university or go on to complete further training through an apprenticeship as well as getting jobs within the engineering sector.

## Course Details

100% Coursework

Level 2 qualification

Units:

QPE02/001 Working safety in an engineering environment

QPE02/002 Working efficiently and effectively in engineering

QPE02/003 Using and communicating technical information

QPE02/004 Producing mechanical engineering drawings using a CAD system

QPE02/005 Producing components using hand fitting techniques

QPE02/011 Preparing and using lathes for turning operations



“AS ENGINEERS, WE WERE GOING TO BE IN A POSITION TO CHANGE THE WORLD – NOT JUST STUDY IT.”

—HENRY PETROSKI, AMERICAN ENGINEER AND AUTHOR SPECIALIZING IN FAILURE ANALYSIS



# **CITY & GUILDS TECHNICAL CERTIFICATE IN ENGINEERING**

THESE HIGHLY-PRACTICAL QUALIFICATIONS WERE DEVELOPED FOR LEARNERS WISHING TO SPECIALISE IN A TECHNICAL OCCUPATION OR OCCUPATIONAL GROUP. THEY EQUIP LEARNERS WITH SPECIALIST KNOWLEDGE AND SKILLS, ENABLING DIRECT PROGRESSION ROUTES TO EMPLOYMENT, APPRENTICESHIPS, FURTHER STUDY AND HIGHER EDUCATION.

## **Overview**

This qualification is for you if you are aged 16-19 and want to work in the Engineering and Manufacturing sectors. If you like to explore how simple components and complex machines are designed, made or maintained and are keen to develop practical, technical skills, then this qualification is for you.

## **Requirements for the course:**

Grade 3 or above in English and Maths

## **Career Opportunities**

The qualification is applicable to a wide variety of engineering occupations within the sector such as Fabrication and Welding, Sheet metal fabricator, General welder Maintenance, Production setter, Mechanical maintenance fitter Manufacturing Technologies, Tool room operative, CNC operator Electronics, Electronics equipment assembler, Electronics systems installer. Many of our students go on to study Engineering at a higher level at university or go on to complete further training through an apprenticeship as well as getting jobs within the engineering sector.

## **Course Details**

50% Synoptic  
50% Multiple Choice Theory Exam  
Employer Involvement  
Level 2 qualification

A synoptic assignment is a task set by the exam board. This task is different each year and it will require you to make the product they set in the task.

## **EXAMPLE STUDENT WORK**



**“STRIVE FOR PERFECTION IN  
EVERYTHING YOU DO. TAKE THE BEST  
THAT EXISTS AND MAKE IT BETTER.  
WHEN IT DOES NOT EXIST, DESIGN IT.”**

—SIR HENRY ROYCE, ENGLISH ENGINEER AND CAR DESIGNER



# **BTEC EXTENDED CERTIFICATE IN ENGINEERING**

BTECS ARE HIGH-QUALITY, CAREER-FOCUSED QUALIFICATIONS GROUNDED IN THE REAL WORLD OF WORK. THIS MEANS BTEC LEARNERS DEVELOP AND APPLY THE KNOWLEDGE, SKILLS AND BEHAVIOURS THAT EMPLOYERS AND UNIVERSITIES ARE LOOKING FOR.

## **Overview**

This BTEC Level 1/Level 2 First Award in Engineering is great for young people aged 14–19 who may wish to explore a vocational route throughout. It has the opportunity to:

- give learners the opportunity to gain a broad understanding and knowledge of the engineering sector
- give learners a more focused understanding of engineering through the selection of optional specialist units
- give learners the opportunity to develop a range of personal skills and techniques, through the selection of optional units that are essential for successful performance in working life
- support progression into a more specialised level 3 vocational or academic course or into an apprenticeship
- give learners the opportunity to enter potential employment within a wide range of engineering sectors such as mechanical, automotive and electrical.

## **Requirements for the course:**

Grade 3 or above in English and Maths

## **Course Details**

Level 1/2 qualification

unit 1 Exam- 1hr - The Engineered World  
unit 9 Exam - 1hr - Interpreting and Using Engineering Information

The rest of the course is achieved through the completion of a range of coursework units

## **Career Opportunities**

This course gives students the theoretical and practical knowledge to go on to further study or work in the Engineering sector.

## **EXAMPLE STUDENT WORK**



**“WE ARE CONTINUALLY FACED BY GREAT OPPORTUNITIES BRILLIANTLY DISGUISED AS INSOLUBLE PROBLEMS.”**

—LEE IACOCCA, AMERICAN ENGINEER AND AUTOMOBILE EXECUTIVE

# CONTACT DETAILS

If you have any questions about the course,  
please do not hesitate to contact us.

Head of Engineering

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