Engineering
(BTEC Level 3)

What will I learn about?

A Level 3 BTEC in Engineering will open the door to career opportunities in civil, mechanical, electronic and design sectors. The course provides students the opportunity to develop knowledge and skills in the design, development and manufacture and maintenance of engineering products and systems.

Our Engineering Pathway offers students an excellent grounding in the knowledge and experience of fundamental Engineering principles that provides students that chance to explore mechanical, electrical and manufacturing disciplines, developing students analytical and problem solving skills.

Students have access to expert teachers and industry standard equipment that will prepare them for a variety of engineering careers. Students will graduate from the course with a high level understanding of engineering design, having learnt how to apply maths and physics in an engineering environment.

How is the course structured?

Module content includes:

- Engineering Principles
- Delivery of Engineering Principles Safely as a Team
- Engineering Product Design & Manufacture
- Applied Commercial & Quality Principles
- Specialist Engineering Project
- Microcontroller Systems for Engineers
- Calculus to Solve Engineering Problems
- Computer Aided Design
- Hydraulics & Pneumatics
- Electronic Printed Circuit Board Design & Manufacture
- Non Metallic Materials
- Maintenance of Mechanical Systems
- Metallic Materials
- Additive Manufacturing Processes
- Electrical Power Distribution

At UTC Warrington we work with a number of Employer Partners and local engineering organisations to integrate learner units of work with industry. This includes working with companies such as Wood PLC to make wind turbines, testing of materials in the specialist facilities at Manchester Metropolitan University, and opportunities for industry-related work experience.

How will my work be assessed?

BTEC Engineering Extended Diploma is the equivalent of 3 A Levels, consisting of 15 units of work, 7 Mandatory Units, 3 of which are externally assessed with 1 examination and 2 controlled assessments. The remaining 8 units are optional and are internally assessed.

- The course is split into modules with each module being assessed upon completion.
- Therefore there will be multiple assessment points throughout the year.
- There are three external assessment modules and these will be assessed in either January or May of each year.
- The attained grades for each module will be combined to give an overall grade for the course.

Where will this course lead to?

Students who gain a BTEC Extended Diploma in Engineering are held in high regard by various engineering companies and apprenticeship providers as they will have both good theoretical knowledge and evidence of developing practical skills.

The course incorporates two Mathematics units , enabling students to progress into studying Engineering at university. This subject can lead to careers in: Mechanical Engineer, Electrical Engineer, Electronic Engineer, Chemical Engineer, Aeronautical Engineer, General Engineering, CAD Technician, Sports Engineering Designer and Process Engineer.