

Level 3 Extended Diploma Professional Engineering

Why study this course at Cronton Sixth Form?

This course is designed to allow you to develop higher level skills needed to progress to university or employment at a technical or professional level within engineering. You will have access to our outstanding 'IDEA Centre' which houses cutting edge Engineering facilities including an advanced manufacturing workshop, metallurgy and electronics laboratories and state-of-the-art computer aided design suites.

What is this course about?

The first year of your course will be spent studying engineering principles in maths, electrical and mechanics, along with core engineering knowledge such as behaviour of engineering materials. You will also gain fundamental skills which are essential to successful progression into the world of modern engineering; in Computer Programming and Computer Aided Design (CAD).

In your second year, alongside specialist mechanical and electrical units such as Microprocessors, you will get the experience of exploring further mathematical modelling in engineering through Calculus, Thermodynamics and Further Maths. You will also have the opportunity to choose an engineering specialism on which you will base your specialist engineering project.

Many students thoroughly enjoy embarking upon Projects whilst studying with us. Past students have linked with the local council in order to design and make green projects for the local community, design and produce prototypes of wildlife conservation equipment, enter competitions with green energy challenges, adapt existing drones for useful applications such as search and rescue or firefighting. This often results in an impressive folder that allows our students to showcase a variety of skills and attributes that often lends itself well to 'the next step' such as university or employment interviews.

How will I be assessed?

The majority of BTEC modules are internally assessed coursework, over the two years. There are 3 external assessments; Engineering Principles, Engineering Product Design and Microcontrollers.

Entry Requirements

A minimum of 5 GCSEs at Grade 9 – 4 including a Grade 5 in Maths, a Grade 4 in English Language and a Grade 4 in Science.

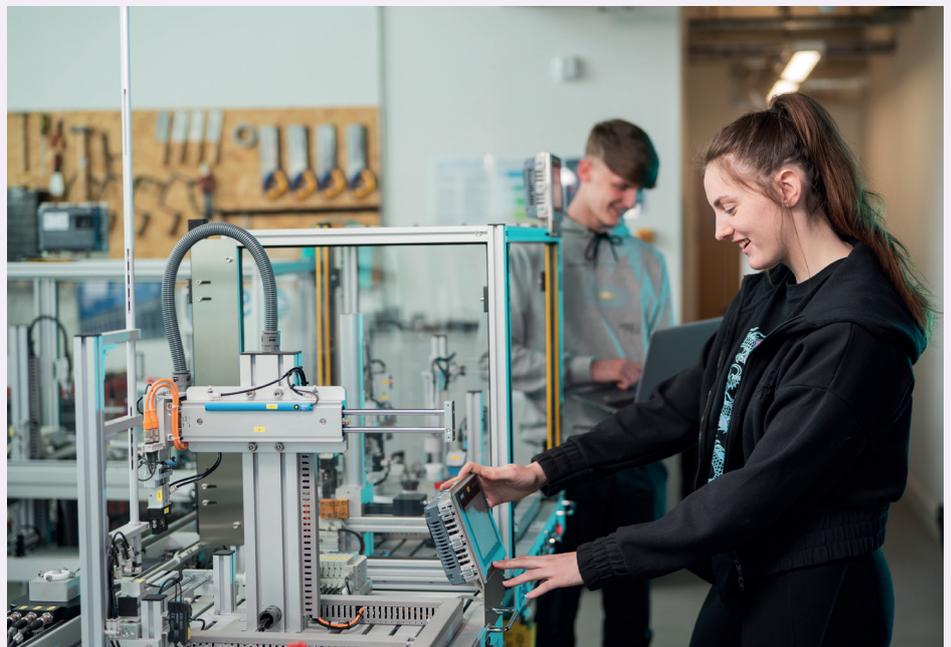
Centre of Excellence in STEM

These courses will be delivered in our new IDEA centre which in addition to high quality teaching rooms also boasts state of the art electronics and metrology labs, with manufacturing workshops to provide hands-on training and development in Robotics, Pneumatics and Hydraulics, Microelectronics, and engineering applications.

Opportunities also exist for working on a simulated manufacturing process line to experience an understanding of the very latest technology in engineering processes.

Be inspired

The College works closely with local industry to enable valuable work experience placements which will enhance your appreciation of the global world of engineering.



Enrichment Opportunities

During your time at Cronton Sixth Form College, you will have the opportunity to take part in a number of different enrichment activities in your free time. These will increase your enjoyment of your studies and equip you for further success.

Students will have opportunities throughout the course to engage with enrichment activities led by engineering tutors, industry partners and educational establishments.

The friendly and supportive team of staff in the IDEA Centre are continually finding ways for our Engineering and Built Environment students to engage with enrichment activities. These have included a celebration of seasonal events, charity fundraisers and professional presentation evenings. There are also many opportunities to join us on international trips; to San Francisco, Berlin and Cern in Switzerland.

Female Engineers and Built Environment students are encouraged to join our Women in STEM club, run by female tutors in the IDEA Centre. Learners will have to opportunity to meet and network with like minded students, as well as further trips and visits and opportunities. The Women in STEM team frequently enter competitions and complete in cross curricular projects, as well as focussing on encouraging the next generation of female learners onto STEM courses.

What can this course lead on to?

The course is designed to allow students to progress to further study at university including foundation degrees, BEng, MEng or BSc. There are an increasing number of students in engineering choosing to progress on to higher education, alongside employment, on our Electrical or Mechanical HNC/D courses. Alternatively, you could progress directly into full time

employment in engineering, for example, as a Design Engineer or an Engineering Technician.

What have previous students said about this subject?

“The 3 words I’d use to describe this course are exciting, challenging and fun. The smaller class sizes mean that the tutor can focus on the students they have and not being too stretched, which in turn makes you feel really supported.”

Outstanding Facilities

The IDEA Centre is a unique STEM facility which offers students innovative training facilities including an advanced manufacturing workshop, a digital and electronics suite, a metrology suite, a process control workshop, a health and fitness suite, a project management suite, meeting rooms, a 3D modelling suite and an Industry 4.0 suite which all prepare students for the Industry 4.0 trend of automation and data exchange in manufacturing technologies.



Meet the Students

Name:
Jacob Thornton

Previously from:
St Chad’s Catholic and Church of England High School

Destination:
University of Central Lancashire, Robotics and Artificial Intelligence

Vocational Results:
Level 3 Extended Diploma in Engineering (Tomorrow’s Engineers) Distinction*, Distinction*, Distinction*

