

T Level Engineering and Manufacturing - Electronic Engineering

Course Overview

T Levels are a two year qualification for 16-19 year olds, designed in collaboration with industry employers and professional bodies. Our T level in Engineering and Manufacturing (Electronics) prepares you for the workplace, giving you the hands-on skills and behaviours employers really want. Principles of electrical and electronics design, manufacture, measurement, and testing taught in engaging blended-learning lessons get you up to speed before you move into hands-on sessions. In purpose-built engineering labs and workshops, you work through practical tasks, seeing the theories come to life at your own hand. By the time you get to your 45-day industry placement with an employer, you feel confident you can hold your own in an onsite team, solving problems, designing systems, and interpreting engineering requirements. If you are not quite ready for a T level but want to get on the path to your chosen career, then a transition programme could be for you. This will give you the chance to improve your maths and English (and any other subjects and areas that you need to improve) to move on to a T level the following year. For more information about these courses, please visit our T levels course page on our website. This course is usually very popular. Where courses are oversubscribed we will offer places based on the date applications are received and may close applications early. We recommend applying using our website as soon as possible, particularly for oversubscribed courses.

What you will learn

Such a comprehensive career needs a comprehensive starting place, and that's what year one of the design and development for engineering manufacturing T level gives you. You jump into the past, present and future of engineering and manufacturing, then learn the essential maths and science the industry relies on. With these fundamentals in place, you can build a strong understanding of the principles, properties and systems that will become second nature in your engineering career: 1. engineering representations 2. materials and their properties 3. mechanical principles 4. electrical and electronic principles 5. mechatronics 6. engineering and manufacturing control systems To support your progress and keep you agile in an ever-changing industry, you also look beyond engineering and to the practical part of business, management and people, covering: 1. project and programme management 2. stock and asset management 3. quality management 4. health and safety principles and coverage 5. business, commercial and financial awareness 6. professional responsibilities, attitudes and behaviours 7. continuous improvement

Year two draws you deeper into the detailed world of design development, guided by six very clear performance outcomes. 1. Electrical and electronic knowledge criteria 2. Analyse and interpret engineering and manufacturing requirements, systems, processes, technical drawings and specifications 3. Evaluate systems, designs, components and processes, managing and integrating design information, proposals and specifications, to develop and improve electrical and electronic engineering and manufacturing proposals and solutions 4. Propose and design electrical and electronic engineering and manufacturing systems, products, components, processes and solutions, considering requirements, constraints and context 5. Collaborate to help manage, develop, test and quality assure electrical and electronic engineering and manufacturing design information, systems, processes and outcomes 6. Communicate proposals, design information and solutions, producing, recording and explaining engineering and manufacturing representations, systems, processes, outcomes, specifications and technical drawings To develop your skills and experience in a real-life setting, we work together to find an industry placement that works for you. In block release, day release or a combination of both, you work on your employer-set project to refine your design development skills and prepare for an exciting career. If you need an extra hand with English, maths and digital skills relevant to the health and science route, we have tutors to support you to get that all-important level 2 in English and maths you need to complete the course.

Entry Requirements

Direct entry requires a GCSE grade 5 in maths, together with 3 further GCSEs at grade 4 including English and science. Students progressing onto this course need to have successfully completed a level 2 Diploma in Engineering, as well as having a GCSE English grade 4 and Maths at grade 5. Attending our mandatory Welcome Event is a required part of the application process. You need to be between 16 and 18 on 31 August of the year you start the course.

Course Fees

You are expected to obtain personal protective equipment (PPE) to be worn during all practical sessions. During the Induction period, you will be allocated a locker to store your PPE. Basic requirements are steel toe cap safety boots, and plain navy or black overalls (boiler suit style only). You can purchase your PPE from wherever you wish, however during enrolment you will be given details of some local companies who supply many of our students. The cost of the required PPE would be expected to cost between £30 and £45. You will require some basic stationary (scientific calculator, pens, pencils, ruler, ring binder, page dividers). You will be given a course Equipment List during enrolment, detailing specifics.

Course Progression

Course Details

Course Code	P00099
Start Date	06/09/2027
Study Hours	Full Time
Duration	2 years
Campus	Abbey Park Campus
Level	3

Apply Here

Equivalent to three A levels, this T level sets you up for a career in electrical and electronic design and development in the engineering industry, giving you a strong start in a highly sought-after career.

 You could step into an electrical or electronics design engineer position or go for systems development, measurement and testing – anything involving electrical and electronic systems is open to you from here.

 It also arms you with the knowledge you need to move into a higher level apprenticeship or a course of study in Higher Education, such as Higher National Diplomas (HNDs) and Degree level courses

 Have a chat with our independent careers advisors to work out your next step. They have all the information, advice and guidance you need to spark up your career.

What Happens Next

Apply online via the college website, or if your school uses the Positive Steps @16 (PS16) application system please apply through this and speak to your careers advisor if you are unsure. You will need details of your qualifications, a reference, and a personal statement to complete your application. Once your application has been successfully processed, you will be sent a conditional offer and be invited to a welcome event at the College to meet your tutors, learn more about your chosen course of study and tour the facilities. You will then need to confirm your acceptance of the course offered to you.