Leicester College

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# T Level Engineering and Manufacturing - Electronic Engineering

**Course Overview**

We are no longer accepting applications for this course for September 2025 starts. Please take a look at other courses or contact our careers team for independent advice and guidance. 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.

**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**

T levels are for people who are 16-18 on 31 August on the date that they start the course. Standard entry to this course requires one reference. It is desirable that you can demonstrate a minimum of 90% attendance at your last place of work or study. You will also need a GCSE grade 5 in maths, together with 3 further GCSEs at grade 4 including English and science. If you were previously studying at the college, you will need to have attained a Level 2 Diploma in Engineering, plus GCSE English grade 4 and Maths at grade 5. When you enrol, you will be on a 6-week probationary period. During this time, we will monitor your attendance, attainment and attitude toward study. At the end of the 6 weeks, we will talk to you about whether you should continue with the T level or whether an alternative course would be better suited to you. If you don't meet these entry requirements but want to start on your chosen career path, then you can apply for the Level 2 EAL Diploma in Engineering Operations during which you will have the opportunity to resit Maths/English GCSE to obtain the necessary entry grades.

**How you will be assessed**

To monitor your practical knowledge and skills, the course has regular tasks and assignments. There are also several formal assessments during the two years: external exams, controlled assessments, practical summary assignments and an employer-led set project. Together, the assessments generate an overall grade of pass, merit, distinction or distinction*. At the end of your T level, you receive a nationally recognised certificate with a clear breakdown of your achievements. The T level can be worth up to 168 UCAS points.

**Course Fees**

## Course Details

**Course Code** P00099

**Start Date** 10/09/2024

**Study Hours** Full Time

**Duration** 2 years

**Campus** Abbey Park Campus

**Level** 3

Apply Here

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 Progession**

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.