

# Electrical and Electronic Engineering HTQ Higher National Certificate

## Course Overview

This one-year Higher National Certificate (HNC) in Electrical and Electronic Engineering is designed to develop the core knowledge and practical skills required for a career in modern electrical, electronic and automation industries. You will gain a strong foundation in engineering principles alongside specialist knowledge in areas such as electrical systems, electronics and control technologies. The course combines theoretical understanding with practical application, preparing you for real-world engineering environments. Aligned to industry needs, this programme supports progression into employment or further study. On successful completion, you can progress to the HND (Level 5) or begin your career in sectors such as manufacturing, energy, automation or maintenance engineering.

## What you will learn

Over the course of this programme, you will develop a broad understanding of electrical and electronic engineering, combining core theory with applied technical skills. You will begin with key engineering fundamentals, including design, mathematics and project-based learning, which underpin your ability to analyse and solve engineering problems. You will then explore electrical and electronic principles, gaining insight into how circuits, systems and components operate in practical applications. As your knowledge develops, you will study topics such as automation, robotics and programmable logic controllers (PLCs), alongside electrical machines and quality improvement processes. These areas reflect current industry technologies and practices. Learning is supported through practical activities and project work, allowing you to develop problem-solving, teamwork and communication skills. By the end of the course, you will be equipped to progress to higher-level study or enter employment in the engineering sector.

## Entry Requirements

Standard entry to this course requires a recognised Level 3 qualification in a relevant subject, such as a T Level, BTEC National or A Levels. Applicants with a higher-level qualification in an unrelated subject area may also be considered. You are expected to have GCSE English and Mathematics at Grade 4 (C) or above, or an equivalent qualification. We welcome applications from individuals who may not meet the standard entry requirements but can demonstrate the ability to study at Level 4 and have relevant experience. All applicants could be invited to attend an interview to assess suitability and prior achievement.

## Course Fees

For certain practical activities, you may be required to provide your own personal protective equipment (PPE).

## Course Progression

This course provides a clear pathway into both further study and employment within the engineering sector. On successful completion of the Higher National Certificate (Level 4), you can progress to the Higher National Diploma (Level 5) in your chosen engineering specialism, further developing your technical knowledge and skills. You may also choose to enter employment, with opportunities across industries such as manufacturing, energy, aerospace, automotive and automation. Typical roles include engineering technician, maintenance engineer or junior design engineer. The course is designed to equip you with the knowledge, practical skills and professional behaviours required to support your progression within the engineering industry.

## What Happens Next

Step 1: Search for vacancies on UCAS using the course code H001 or apply through Leicester College Website using codes P00272 (FT) or P00271(PT). Step 2: Once submitted, your application will be reviewed by our Higher Education Team. Step 3: If your application is shortlisted, you will receive a conditional offer. Alternatively, we may contact you by phone or email to discuss your application and request any additional information if required. Step 4: Once you have met the conditions of your offer, typically in the summer prior to the course start date, you will be invited to attend the college. This will allow us to verify your certificates and complete the enrolment process. Step 5: After completing enrolment your Higher Education journey will officially begin with us.

## Course Details

|             |                   |
|-------------|-------------------|
| Course Code | P00272            |
| Start Date  | 13/09/2027        |
| Study Hours | Full Time         |
| Duration    | 1 year            |
| Campus      | Abbey Park Campus |
| Level       | 4                 |

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