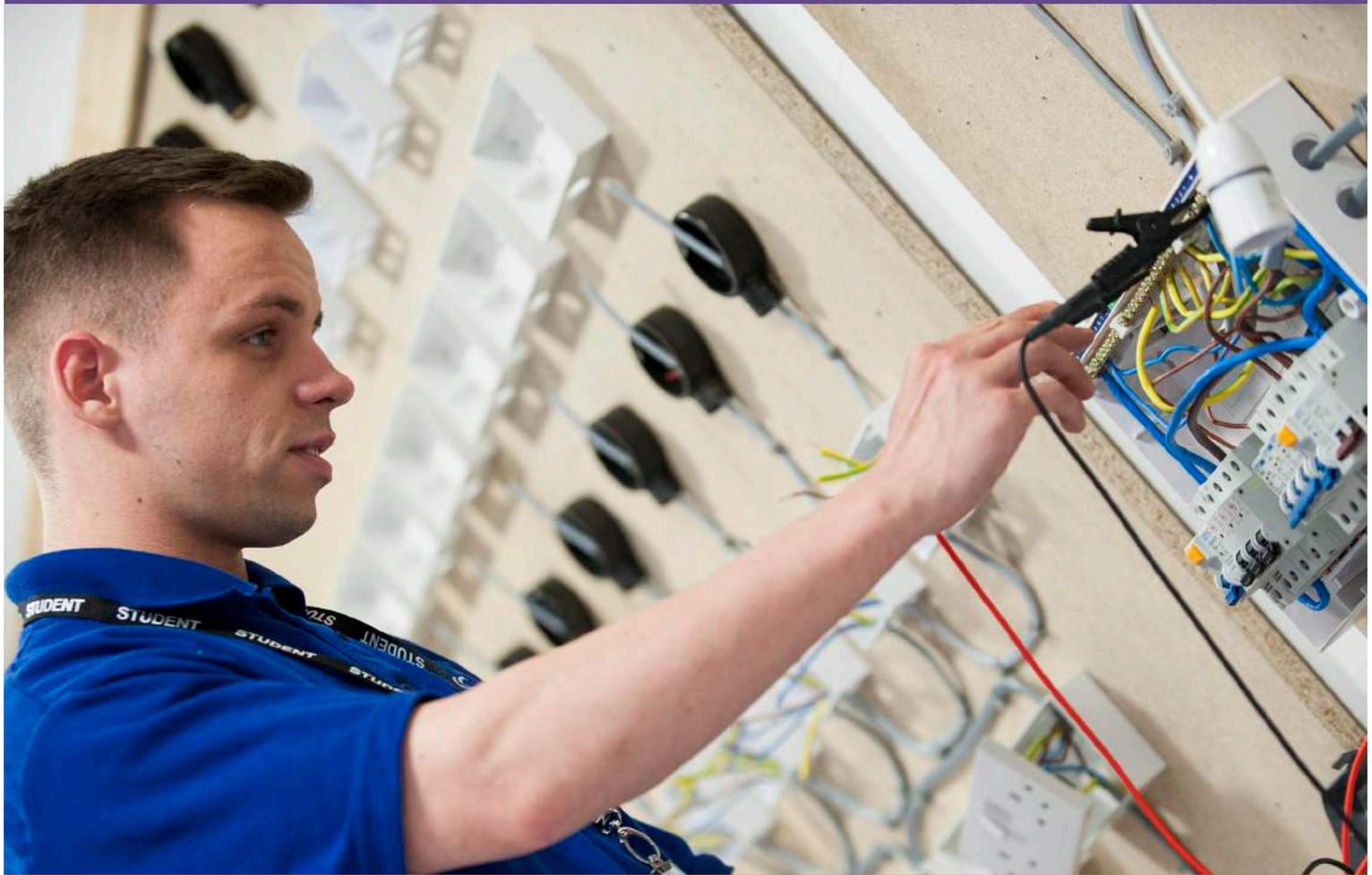


# HNC Diploma in Electrical and Electronic Engineering

Level 4



# About this course

Throughout this course you will gain an understanding of fundamental principles and practices within the fields of electrical and electronic engineering, as well as the range of applications within industry, commerce and around the home.

The Higher National Certificate is a recognised industry qualification, with employers valuing the mix of practical and theoretical skills that you gain on the programme. Delivered one day a week, over two years at the College's Institute of Advanced Manufacturing and Technology centre, you will use the latest industry standard equipment. If you are not already in employment within the sector, work placement opportunities will ensure that you have access to industry exposure in order to complete the various units. The course can also be taken as part of a Level 4 Higher Apprenticeship framework.

## More than just a course!

The utilisation of electricity in the field of electrical and electronic engineering encompasses a wide range of technical applications within industry, commerce and around the home. Throughout this course you will gain an understanding of fundamental principles and practices within the fields of electrical and electronic engineering.

This course has been designed with employers to support Liverpool City Region priorities for growth and employment. See the Higher Education section on the College's website for further details.

As an electrical engineer, you would work with high and low voltage equipment in a number of areas, including:

- transport networks, including rail electrification and signalling
- power generation, transmission and distribution
- renewable energy sources, such as solar panelling, hydroelectric and wind turbines
- manufacturing and construction
- building services, such as lighting, heating, ventilation and lift systems.

Your exact duties would depend on your industry, but could include:

- carrying out feasibility studies for new technical developments
- drawing up project plans and circuit diagrams,
- using computer-assisted engineering and design software
- estimating costs and project timescales
- coordinating the work of technicians and craftspeople
- testing installations and systems, and analysing test data
- making sure projects meet safety regulations
- overseeing inspection and maintenance programmes

- attending meetings, writing reports and giving presentations.

The development of Employability Skills is a key thread running throughout the course. It offers a strong, sector-related emphasis on practical skills development alongside the development of requisite knowledge and understanding. You will either be employed in the sector or will require work experience opportunities in order to complete the various units. The course can also be taken as part of a Level 4 Higher Apprenticeship framework.

Your unique experience will include:

- Latest industry standard equipment supported by Local Enterprise Partnership funding to develop the technical skills required to support local industry
- Delivery at the College's Institute of Advanced Manufacturing and Technology centre
- Close liaison with local employers to reduce the local skills gap
- Flexible entry with September and February intakes

## Length of study

The course is completed using a day release model on a part-time basis over 2 years with entry points in September and February. Significant additional study will also be required outside College hours to be successful on this programme.

## What will I study?

### HNC (Full-time 1 year)

- Electrical Power
- Electrical and Electronic Measurement and Testing
- Analytical Methods for Engineers
- Engineering Science
- Project Design, Implementation and Evaluation
- Business Management Techniques for Engineers
- Quality and Business Improvement
- Management of Projects

### HNC (Part-time 2 years)

You will complete the same units as the HNC Full-time course but over 2 years.

# What skills will I develop?

The course has been designed to enable you to develop the following skills during the programme of study:

- analyse, synthesise and summarise information critically
- read and use appropriate literature with a full and critical understanding
- think independently, solve problems and devise innovative solutions
- take responsibility for your own learning and recognise their own learning style
- apply subject knowledge and understanding to address familiar and unfamiliar problems
- design, plan, conduct and report on investigations
- use knowledge, understanding and skills to evaluate and formulate evidence-based arguments critically and identify solutions to clearly defined problems of a general routine nature
- communicate the results of studies and other work accurately and reliably using a range of specialist techniques
- apply subject-related and transferable skills in contexts where the scope of the task and the criteria for decisions are generally well defined but where some personal responsibility and initiative is required.

# How will I be assessed?

Assessment methods include:

- Case Studies
- Reports and written assignments
- Oral presentations
- Practical Assessments
- Individual project work
- Data analysis
- Portfolios of evidence

All successfully completed units are graded as Pass, Merit or Distinction. Each grade achieves points with the final qualification grade dependent on the accumulation of these points.

# Entry Requirements

You will need to be 18 years of age on or before 31st August of the academic year that the programme commences to complete the programme. Admission to the programme in 2017/18 would normally be on the basis of you possessing attainment from a previous course of study, and/or relevant experience, which may be ascertained by the following:-

A minimum of 48 UCAS points which may be gained from the following qualifications or combinations of qualifications:

- GCE 'A' Level or 'AS' level passes
- 90 Credit Diploma, Diploma or Extended Diploma
- A Diploma or equivalent such as NVQ, GNVQ, International Baccalaureate, Scottish Certificate of Education
- An Access to HE Course
- Any other relevant international qualifications

You can find out how many points your qualifications are awarded by using the UCAS Tariff look-up tables on the UCAS website. In addition, GCSE English Language (Grade C or above) and GCSE Maths (Grade B or above) or successful completion of Advanced Maths for Engineers as part of a BTEC programme is required.

We also welcome students with relevant work experience subject to a successful interview.

All learners who are non-native English speakers or who have not studied the final two years of school in English, will need to demonstrate capability in English (IELTS 5.5, with a minimum of 5.0 being awarded on individual sections).

## What can I do after this course?

Progress to the Pearson BTEC Level 5 HND Diploma in Electrical and Electronic Engineering, or to undergraduate study in a related engineering degree programme, or directly to employment in the sector.

## How do I apply?

As this is a part-time course, you can apply directly to KCC. For more information visit the Higher Education section of the College's website.

# Equipment and additional costs

## Year One

- Key textbooks (for personal use in addition to the texts and e-journals provided) - £50
- Equipment - £50
- Consumables - £20
- Educational visits - £20
- Employability enhancement courses\* - £80

## Year Two

- Key textbooks (for personal use in addition to the texts and e-journals provided) - £50
- Equipment - £50
- Consumables - £20
- Educational visits - £20
- Employability enhancement courses\* - £80

\*Short courses that are available as an option on Wednesday afternoons to enhance employability.

# Additional information including fees

The tuition fees for the HNC delivered over 2 years on a Part-Time basis is £2750 per year. Students completing a L4 Higher Apprenticeship framework will not have to pay any tuition fees as the programme is part of the framework.

Key points regarding Tuition Fees:

- If you never earn more than £21,000 per year, you never pay anything back.
- If you stop earning more than £21,000 at any time your payment stops.
- If you wish, you can repay your loan in full at any time with no penalties added.
- Your employer can pay part of the fees, with you paying the rest through a loan.
- If you don't pay off the loan within 30 years, the Government will write off the outstanding amount.

Further Information on how to access Higher Education loans and bursaries can be located on the Higher Education section on the College's website

Whilst every effort is made to keep our information up to date, courses can be subject to change, although all content in this prospectus is correct at the time of print. Knowsley Community College reserves the right to amend, add or remove courses and does not accept liability for inaccuracies, and this prospectus is not legally binding or contractual.

