

University Certificate

**University Certificate in
Professional Development
(UCPD)
in
High Voltage Electrical Systems**

A Partnership between

**The Faraday Centre Ltd
&
Teesside University**



About The Faraday Centre Ltd

Since its establishment in 1991, The Faraday Centre Ltd has become one of the leading electrical training organisations in the UK, specialising in high and low voltage training.

‘Hands-on’ practical electrical training is provided in all Faraday’s training programmes using ‘real’ industrial electrical equipment in support of theoretical training. Comprising 16,000sq.ft, our UK purpose-designed training facility offers extremely high quality practical training using a wide and varied range of High and Low voltage equipment. Candidates can experience ‘hands-on’ practical electrical training in a safe and controlled environment.

The High Voltage facility is divided into two power systems, the Land-based System and the Marine/Offshore System. Each area is equipped with a variety of electrical switchgear of different makes/types including 11 kV circuit breakers (oil/gas/air/vacuum), 11kV ring main units, 3.3/6.6kV vacuum contactors, 110v/440v/3.3kV motors and generators along with a varied range of High Voltage test equipment.

The Low Voltage facility is equipped with various simulation training boards, covering all electrical wiring applications for domestic and commercial buildings including electrical installation, operation and maintenance. Trainees gain a deeper knowledge and skills base of electrical safety, tools, functions of components and related safety regulations.

The training programmes, in general, focus on:

- The safe operation of high and low voltage switching
- Electrical protection
- Electrical testing
- Safe electrical Maintenance
- Electrical safety procedures
- Competence assessments

About Teesside University

Teesside University is a dynamic, energetic and innovative higher education institution. We're growing and inspiring others to do the same.

- It is one of the top modern universities for graduate prospects.
- Founded on a rich past – over 75 years of innovation in education dating back to Constantine College, set up to provide vocational education for engineering students.
- It is one of the top UK universities for widening participation in higher education.
- We have invested £120m in our friendly town campus at the heart of Middlesbrough.
- Our students love it – 84% of our degree students are happy with their courses – 60% of courses in academic areas where teaching provision has been rated excellent.
- We're research active – with an international reputation for excellence in enterprise.

The School of Science and Technology provide a wide range of courses in Science and Engineering at all levels using a wide range of modes of study. This can be from complete distance learning using the internationally renowned COLU brand, by part-time day release or by full-time conventional study.

The School accredits courses with reputable and high quality training providers who offer courses in engineering such as The Faraday Centre Ltd. Students undertaking such courses get the benefit of a very relevant vocational training course, with the additional benefit of industrial experience, notwithstanding, 60 credits attained towards HNC in Electrical and Electronic Engineering.



The UCPD in High Voltage Electrical Systems

This is the first award of its kind in the electrical industrial engineering field. Awarded by Teesside University and delivered, in partnership, by The Faraday Centre Ltd. This award allows participants to gain a recognised university qualification.

As well as the conventional qualifications that you would expect from a high quality university education, the School of Science and Technology offers a programme of University Certificates in Professional Development (UCPD's). These are available for people in the workplace who wish to acquire new professional skills and nationally/internationally recognised qualifications.

A UCPD is an accredited programme, just like a HNC or full degree, but whereas the latter are for 150 or 360 credits, a UCPD offers 30 credits, being a much shorter course. The credit system is used throughout Europe, so any candidate holding such credits might apply for a long course, for example a HNC (Higher National Certificate) and may request that the institution he/she is applying to take account of UCPD credits as part of their award. In other words, as long as they are relevant, they can be "traded in".

In the case of credits awarded following study with The Faraday Centre Ltd, these may be used to offset the requirement for a HNC in Electrical and Electronic Engineering at Teesside University. Since a module in a HNC is worth 15 credits and a UCPD with The Faraday Centre Ltd is worth 30 credits, for example, a candidate may be exempted from 2 modules in a HNC.

Attractions of Study with The Faraday Centre & Teesside University

The Faraday Centre Ltd in conjunction with the School of Science and Technology at Teesside University offer high quality, industry standard specialist high voltage and electrical UCPD courses in the following:

- [UCPD Basic Principles of the Maintenance of Electrical Switchgear](#) (course code M1)
- [UCPD Fundamentals of the Safe Operation of Marine/Offshore High Voltage Power Systems](#) (course code MAR4)
- [UCPD Principles of the safe Operation of Marine/Offshore High Voltage Power Systems](#) (course code MAR5)
- [UCPD The Control & Management of Offshore & Marine High Voltage Power Systems](#) (course code MAR6)
- [UCPD Fundamentals of the Safe Operation of High Voltage Power Systems](#) (course code S4)
- [UCPD Protection of Electrical Power Systems](#) (course code P1)

The duration of each of the above UCPD programmes is 5 days and is worth 30 credits.

Candidates successfully completing up to any two of the above courses may progress to the HNC in Electrical and Electronic Engineering offered by Teesside University through COLU. Candidates may also choose to apply for further study at any university recognising the EU credit accumulation system and subject to their entry requirements, may “trade-in” credits against higher qualifications.

How to Apply:

Potential candidates in the first instance should contact The Faraday Centre Ltd for further information and may similarly apply to The Faraday Centre Ltd for a training place. Alternatively, candidates may apply to Teesside University using the standard application form obtainable from the University website:

www.tees.ac.uk/docs/docrepo/undergraduate/UG%20App%20Form.pdf

Enrolment for a place on the course will take place with The Faraday Centre Ltd who will also register candidates for the appropriate UCPD.

UCPD Certification

On successful completion of modules, students will be notified of their results and will be eligible for all professional and workplace permissions associated with that completion. The University will hold examination boards at appropriate intervals to allow timely ratification of awarding of the UCPD and associated credits.

Student Progression

Students who have completed one or more UCPD's from The Faraday Centre may progress to the Teesside University open learning HNC in Electrical and Electronic Engineering, delivered by COLU.

The courses run by COLU are suitable for distance learners who may choose to study from any part of the world

Any credits obtained as a Teesside University UCPD may be presented toward the HNC. Up to 60 credits worth (two UCPD's) may be submitted.

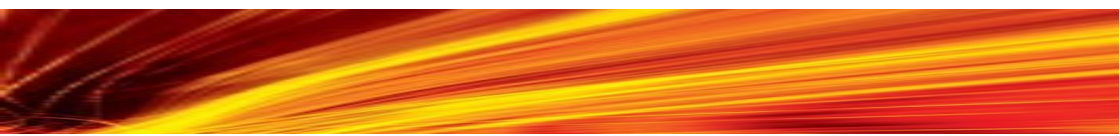
Students wishing to transfer may contact the School of Science and Technology admissions team on SST-courses@tees.ac.uk

The HNC in Electrical and Electronic engineering may be used to access the 2nd year of a full or part-time degree in electrical and Electronic Engineering or equivalent degree at another institution.

The HNC has like all Edexcel awards certain core modules which must be studied. These include:

Core modules

- Analytical Methods for Engineers
- Business Management Techniques
- Engineering Design
- Engineering Science
- Project



Option modules

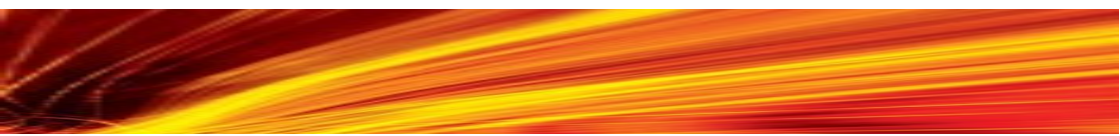
- Electrical & Electronic Principles
- Electrical Power
- Electrical Plant Protection
- Electrical Supply & Distribution Systems
- Electricity & Lighting
- Heavy Current Applications
- Control Systems & Automation
- Applications of Pneumatics & Hydraulics
- Safety Engineering
- Utilisation of Electrical Energy
- Software
- Electrical & Electronic Principles

Students seeking a broader electronic approach may include the following option modules:

- Digital & Analogue Devices & Circuits
- Electronics
- Microprocessor Systems
- Power Electronics
- Programmable Logic Controllers
- Control Systems & Automation
- Analytical Instrumentation
- Combinational & Sequential Logic
- Operational Amplifiers

Students typically studying for a HNC by this route will take between 18 and 36 months, depending on the time they are able to commit to their studies and the support they might receive from their employers.

Delivery of modules is by high quality paper-based self-contained lessons using considerable worked examples and tutor marked assessments. Student support is at the end of a phone, or by email or fax where appropriate. Tutor staff work enhanced office hours to cover different time zones.



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