Engineering - BEng (Hons) Degree in Electronic and Computer Engineering

Why Study BEng(Hons) Electronic and Computer Engineering?

Imagine a world without electricity or electronic devices. It is easy to see why electrical and electronic engineering is vital to our survival and the development of future technologies.

Electronic engineers play a vital role in the design, development, distribution and eventual recycling of numerous everyday products.

As a result, qualified electrical and electronic engineers are in demand. You will study digital and analogue electronics, mathematics and computer programming, and the application of electronics in a range of environments. As you progress, you will examine signal processing, micro-controllers, communications, control systems and digital hardware design. Alongside, you will develop professional skills in project planning, group work and communication.

Throughout the course, you will apply knowledge through practical projects in our state-of-the-art facilities. You will get an inside track on the industry through factory tours and professional briefings from leading organisations.

We also arrange Careers Fairs and engineer 'speed dating' events to help you find work as soon as you graduate.

Study part-time on our course. Designed alongside major employers, it will equip you with the skills and knowledge for a successful career in this profession.

This course is taught at Gloucester College (years 1, 2 and 3) and the University of the West of England (years 4 and 5). It is validated by the University of the West of England.

Delivery of the Course:

Apprenticeship/Part-time Duration of Course:

Three years Degree Apprenticeship (GC) and two years part-time (UWE)
Three years part-time (GC) and two years part-time (UWE)

Part-time students should be employed in relevant industries and right funding.

Creating employable students Gloucestershire College and UWE Bristol places strong emphasis on employability and skills development at every level. Through work placements, volunteering, study abroad and UWE Bristol initiatives which nurture talent and encourage innovation, students gain valuable real world experience and graduate with diverse career opportunities and a competitive place in the job market.

Part-time students

The honours degree is 360 credits in total. Part-time students generally study between 60 (15 credits x 4) and 90 (15 credits x 6) each year and will pay annually for credits taken in that year. As a part-time student

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you are eligible for a fees loan from the Government. Find more information on UWE's part time UK students funding pages at www1.uwe.ac.uk/students/feesandfunding

There are also several sponsorship options for employers. For more information please visit the We Mean Business at www.uwe.ac.uk/wemeanbusiness

Structure - Part-time/Apprenticeship at GC

The following modules are indicative of the course structure.

Year 1

The modules in Year 1 are all core, and common to both the electrical and electronic engineering routes. The year builds a solid base in the principles of digital and analogue electronics, and electrical principles. This is underpinned with the study of mathematics and embedded computer programming. Individual and group laboratory work is used to support and integrate the lectures. Project planning, group work and communication skills, all considered highly important by prospective employers, are an integral part of the year.

Engineering Mathematics
Programming in C
Digital Principles

Year 2

In Year 2, you will study further modules in electrical and electronic principles, embedded systems design, programming and Practical Electronics.

Electrical and Electronic Principles B
Embedded Systems Design
C++ Development
Practical Electronics

Year 3

In Year 3, you will study further modules in mathematics, signal processing & Circuits, and System Engineering. Systems Engineering exercises develop the themes from the first and second year. The Digital Design introduces hardware development through the design, implementation and verification of a small microprocessor.

Mathematics for Signals & Control
Signal Processing & Circuits
Systems Engineering
Digital Design

Special Features

Placements: Full-time Students who do a work placement are more likely to graduate with a better degree and get higher quality work on graduation. So as well as helping hone your professional skills, industry knowledge and network, a placement will make you highly employable on graduation.

We work with major partner employers http://www1.uwe.ac.uk/et/consortia/engineeringandcomputing.aspx and have strong relationships with GE Aviation, Rolls Royce, NPower and smaller local consultancies. These provide work placements ranging from CAD focused to all-round engineering roles. Past students have worked on electronic systems for next generation Range Rovers. Others have developed fuel systems for Airbus. Employers are impressed with the calibre of our students and often offer them work on graduation. Fieldwork

Throughout the course, you will see engineering in action at a range of facilities. On these factory visits, you will get a guided tour of the shop floor and presentations from host organisations such as Airbus. Showcase your work Final year Electronic Engineering students showcase their work to employers, students and the public at UWE Bristol's annual plan + make degree show.

Please see Gloucestershire College's Admissions Policy and Code of Practice available at http://www.gloscol.ac.uk/about-us-and-jobs-at-gc/partnerships-and-governance/governance/policies (subject to agreed amendments). Gloucestershire College's Admissions Policy and Code of Practice has been written based on guidance from external bodies that regulate consumer law, customer protection and education standards. If you have any queries about either Gloucestershire College's Admissions Policy or Code of Practice, please contact Gloucestershire College's Admissions department via telephone 01242 532008 or applications@gloscol.ac.uk

Please note that modules could be subject to change but any such changes, to module delivery, would be in consultation with the students.

Entry Requirements

Typical offers:

Tariff points: 120

GCSE: Grade C or above in English Language, or equivalent. Please note the University does not accept Level 2 Key Skills, Functional Skills or Certificates in Adult Numeracy and Literacy as suitable alternatives to GCSEs.

A-level subjects: Grade C or above in Mathematics plus a pass in one of the following subjects: Biology; Chemistry; Computing/Computer Science; Design and Technology; Electronics; Engineering; ICT; Further

Maths; Music Technology; Physics; Statistics. Points from A-Level

General Studies and AS-Level subjects (not taken onto full A-Level) can be included towards overall tariff. You must have a minimum of two A-Levels. ·Specific subjects: Maths requirement can also be met by the Cambridge Pre-U Mathematics at Merit 3 ·Relevant subjects: Physics, Engineering, Electronics, Computing, Science, ICT.

Students with an HNC, HND or Foundation Degree in a closely related subject may be considered for advanced entry onto the degree. Students with the City & Guilds Level 5 IVQ Advanced Technician Diploma in Electrical and Electronic Engineering will be considered for entry into the second year (full-time) or third year (part-time). ·EDEXCEL (BTEC) Diploma: A minimum of DDM from one of the following BTEC Diplomas: Aeronautical Engineering; Applied Science; Construction and the Built Environment; Electrical / Electronic Engineering; Engineering; Land-based Technology; Manufacturing Engineering; Mechanical Engineering; or Operations & Maintenance Engineering. Must include Merit in one of the following units: Further Maths for Technicians; Further Maths for Construction and the Built Environment. Please list the units that you are taking in your application.

Access: Achievement of the HE Diploma; to include 15 Level 3 credits at Merit in Mathematics (before you apply, ask us which Maths units you need to do) and 15 Level 3 credits at Merit in another science or technology subject; Level 2 credits giving GCSE equivalency (where appropriate) in English Language. Please list the units that you are taking in your application. · Baccalaureate IB: 26 points, to include a minimum grade of 6 in higher level Mathematics and a pass at higher level in one of the following subjects: Biology, Chemistry, Computer Science, Design Technology, Physics, Environmental Systems and Societies.

Entry requirements The 'Typical offers' information above is only for full-time students entering the first year of the course. Full-time students entering the second year, and part-time students, would normally have a Foundation Degree, Higher National Diploma or Certificate in a closely related subject.

You may be able to join the course in the second year (full-time) or third year (part-time) or be credited with certain modules. With an HNC, you should aim for Merits in all your H2 (generally second year) units, where a Distinction can cancel a Pass.

How to apply Applications: Direct to UWE or to Gloucestershire College UCAS Extra We welcome applications through UCAS Extra http://www.ucas.com/how-it-all-works/undergraduate/tracking-your-application/adding-extra-choices. Responses to UCAS Extra applications will be given within 14 working days.

Applications and enquiries for day-release study are made directly to Admissions and International Development on the telephone number or e-mail address below. Applicants should expect to be invited to UWE for an informal discussion. Please see the general information about applications http://www.uwe.ac.uk/whatcanistudy/applyingtouwe/undergraduateapplications. For further information · E-mail: <http://www.gloscol.ac.uk/campuses-and-contacts/> · E-mail: admissions@uwe.ac.uk ·

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What's Next

Demand for graduates with expertise in electrical and electronic engineering is high. On graduation, you can go on to a career designing electrical and electronic systems; working on consumer technology; or solving engineering problems for communications and power generation/distribution companies. Opportunities are also available in technology, manufacturing, transport and rail, aviation and a host of other industries.

Your Options

	Start Date	End Date	Course Level
Electrical/Electronic Technical Support Engineer Apprenticeship Standard (Part **Time**)			
Cheltenham	TBC	TBC	6
Electrical/Electronic Technical Support Engineer Apprenticeship Standard (Part **Time**)			
Cheltenham	TBC	TBC	6

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