GLASGOW COLLEGE UESTC
UNDERGRADUATE PROGRAMMES IN ENGINEERING 2020
Our joint educational institute offers the opportunity to study a four-year undergraduate programme in Chengdu, China leading to degrees from both the University of Glasgow (UofG) and University of Electronic Science and Technology of China (UESTC).

Our college
Glasgow College UESTC was established in 2013 following approval by the Ministry of Education to strengthen a relationship between UofG and UESTC dating back to 2009. As a successful partnership, highly valued by both institutions, Glasgow College UESTC has grown in size and status since its formation and now offers three undergraduate programmes within the area of Electronics & Electrical Engineering.

Our vision
The vision of Glasgow College UESTC is to combine the strengths of the two university systems to provide our students with the benefit of a truly global educational experience, while pursuing exciting and innovative collaborations in learning & teaching, research, and the sharing of knowledge. It is a place that inspires ambitious people to succeed. A place where inquiring minds can develop their ideas. A place where talented people are given the space to realise their dreams.

UESTC’s Qingshuihe Campus is set in 540 acres of leafy green space in Chengdu, Sichuan: “The Land of Abundance.”

UofG
The University of Glasgow is one of the UK’s most prestigious seats of learning, and the fourth oldest university in the English speaking world. Established in 1451 and recognised for its world-changing research and teaching, the University has inspired thinkers from eminent scientist Lord Kelvin and the father of economics Adam Smith, to Scotland’s First Minister Nicola Sturgeon and has been changing the world for over 560 years.

UESTC
Located in the beautiful city of Chengdu, UESTC was founded in 1956 and is renowned as the birthplace of China’s national electronic industry. Recognised as one of China’s National Key Institutes in 1960, since the late 1990s, UESTC has been under the direct governance of the Chinese Ministry of Education through the nation’s ‘Double First-class Initiative’, aimed at developing world-class universities and first-class disciplines; ‘Project 985’ - a national initiative that aims to develop an elite group of world-class research-oriented universities in China – and ‘Project 211’ which aims to create 100 first-class universities in key areas of research.

uestc.edu.cn
glasgow.ac.uk
WHAT CAN I STUDY?

Our Programmes

• BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH INFORMATION ENGINEERING
• BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH COMMUNICATIONS
• BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH MICROELECTRONICS

Why choose Electronics & Electrical Engineering?
Electronics and Electrical Engineering is a fast-moving discipline that touches all aspects of contemporary life, having spawned the electric power generation and transmission systems; the computer revolution; global telecommunications; the fields of robotics and automation; and the modern entertainment industries. It is also key to the design of systems to improve health care; to the creation of energy efficient systems that reduce our need for fossil fuel-based energy sources; and to regulate renewable power sources such as wind, wave and solar.

Electronic and Electrical Engineers design optimal systems that sense, transmit, and process information; generate, control and distribute power and energy, or even control the operation of safety critical features in a wide diversity of real life applications such as air traffic control, navigation and manufacturing.

Your Learning Environment
Teaching is delivered equally by dedicated and passionate academics from both UofG and UESTC in a supportive and innovative learning environment. Our programmes are taught mainly via lecture courses and associated laboratories, supported by a strand of creative team and individual project work that develops throughout your degree. Distinctive features of our programmes include a 3rd Year project where small teams of students design and test a complex autonomous electronic system from scratch, and an individual project in 4th Year where students rise to the challenge of working in an unfamiliar environment on a substantial and novel engineering problem.

Delivery in English
All teaching and assessment is in English, with English language support underpinning Years 1 and 2 of all programmes.

Looking to your future
Our degree programmes provide our students with the scholarship and skills that will equip them for lifetime careers as leaders in industry and academia, with a wide range of exciting opportunities available to our graduates.

In our third graduating cohort in 2019, 74% of our graduates were accepted to higher degrees with top institutions overseas, of whom 90% enrolled on postgraduate programmes with the top 100 Universities around the world (QS Rankings).

Our graduates are also highly sought after by employers in China with recent graduates finding employment with companies such as China Unicom and Air China.
An outline of the courses that you will study in each year of the programme is given below.

In addition to these courses, all students enrolled in the joint programmes will study the various non-technical and training courses that are required by UESTC.

*Please note: The curriculum outlined may be subject to change as deemed necessary.

**Accreditation**
All current University of Glasgow single and joint honours degrees with Electronics are accredited by The Institution of Engineering and Technology (previously known as the Institution of Electrical Engineers). For Glasgow College UESTC, the Electronic & Electrical Engineering with Information Engineering Programme is accredited and, it is our intention to seek accreditation at the first allowable opportunity for the remaining programmes.

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**BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH INFORMATION ENGINEERING**

In Year 1 you will study:
- Calculus I
- Introductory Programming
- Intro to Academic Study in English
- English for Engineering I (UESTC)
- Calculus II
- Physics I
- Microelectronic Systems
- English for Engineering II (UESTC)
- Physical Experiment I
- Linear Algebra and Space Analytic Geometry I

In Year 2 you will study:
- Physics II
- Physical Experiment II
- Probability Theory and Mathematical Statistics
- English for Engineering III (UESTC)
- Circuit Analysis and Design
- Fundamentals of Analog Circuits
- Application and Design of Digital Logic
- Embedded Processors
- English Communication & Engineering Career Skills

In Year 3 you will study:
- Electronic System Design
- Signals and Systems
- Power Engineering
- Electronic Devices
- Engineering & the Law – New Product Creation & Business Plan
- Engineering Project Management & Finance
- Team Design Project and Skills
- Electromagnetic Field and Microwave Technology
- Digital Signal Processing
- Dynamics and Controls
- Power Electronics

In Year 4 you will study:
- Individual Project
- Digital Communication
- Real Time Computing Systems and Architecture
- VLSI
- Controls

**BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH COMMUNICATIONS**

In Year 1 you will study:
- Calculus I
- Introductory Programming
- Intro to Academic Study in English
- English for Engineering I (UESTC)
- Calculus II
- Physics I
- Microelectronic Systems
- English for Engineering II (UESTC)
- Physical Experiment I
- Linear Algebra and Space Analytic Geometry I

In Year 2 you will study:
- Physics II
- Physical Experiment II
- Probability Theory and Mathematical Statistics
- English for Engineering III (UESTC)
- Circuit Analysis and Design
- English Communication & Engineering Career Skills
- Signals and Systems
- Embedded Processors
- Communication Networks

In Year 3 you will study:
- Communication Principles and Systems
- Stochastic Signal Analysis
- Elements of Information Theory
- Engineering & the Law – New Product Creation & Business Plan
- Digital Circuit Design
- Engineering Project Management & Finance
- Communications Circuit Design
- Team Design Project and Skills
- Electromagnetic Field and Microwave Technology
- Digital Signal Processing

In Year 4 you will study:
- Individual Project
- Advanced Digital Communications
- Wireless & Optical Transmission Systems
- Mobile Communications
- Wireless Sensor Networks

**BEng (Hons) ELECTRONICS & ELECTRICAL ENGINEERING WITH MICROELECTRONICS**

In Year 1 you will study:
- Calculus I
- Introductory Programming
- Intro to Academic Study in English
- English for Engineering I (UESTC)
- Calculus II
- Physics I
- Microelectronic Systems
- English for Engineering II (UESTC)
- Physical Experiment I
- Linear Algebra and Space Analytic Geometry I

In Year 2 you will study:
- Physics II
- Physical Experiment II
- Probability Theory and Mathematical Statistics
- English for Engineering III (UESTC)
- Circuit Analysis and Design
- Fundamentals of Analog Circuits
- Communication Networks
- Embedded Processors
- English Communication & Engineering Career Skills

In Year 3 you will study:
- Electronic System Design
- Electronic Devices
- Engineering & the Law – New Product Creation & Business Plan
- Engineering Project Management & Finance
- Team Design Project and Skills
- Power Electronics
- Micro and Nano Technology
- Application and Design of Digital Logic
- Microelectronic Packaging Technology
- Design of Integrated Circuits
- Comprehensive Experiment of Modern Electronic Technology

In Year 4 you will study:
- Individual Project
- VLSI Design
- Power Semiconductor Device & Integration Technology
- Advanced Devices
- Digital Communications
The University’s main campus is nestled within Glasgow’s cozy and cultural West End, home to bohemian Byres Road and the Instagrammable Ashton Lane. Both of these are great spots to explore, with plenty of student-friendly bars and restaurants.

**Shopping**
Glasgow is a shopper’s paradise, with the city catering for all tastes and budgets. From the biggest high street brands such as Urban Outfitters and Zara to vintage wares, from one-off speciality stores to exclusive designer gear — you will find it all in Glasgow.

**Museums and art galleries**
Glasgow has over 20 fantastic museums and galleries, where visitors of all ages can enjoy one of the richest and most varied collections in Europe. Special mention to The Hunterian, which is located on campus and home to one of the largest collections outside the national museums.

**Parks**
With a name meaning “Dear Green Place” in Gaelic, the city has over 90 parks and gardens to explore, with many housing some of the city’s top attractions. So whether you’re looking for a tranquil spot to study, a beautiful viewpoint of the city, or even somewhere to spot a Highland cow, you’ll be spoilt for choice.

**Sports**
Glasgow is synonymous with sport. In fact, the city recently won the award for the world’s “Best Small City for hosting sporting events” (SportBusiness International, 2018). As successful co-host of the 2018 European Championships, the city is now looking ahead to hosting duties for UEFA EURO 2020.

See peoplemakeglasgow.com.

Discover Glasgow and Scotland
Studying at Glasgow College UESTC allows you the opportunity to graduate from two world-class universities without leaving China. For our students who would like to gain experience of studying abroad, there are also options available to study on the UofG home campus in Glasgow, Scotland.

**2+2 programme**
The 2+2 programme allows eligible students to complete Years 3 and 4 of their degree at UofG. Students will apply during their second year and offers of study will be confirmed following the publication of Year 2 exam results.

**International Summer School**
The International Summer School programmes allow an exciting opportunity for a short visit to Glasgow to experience academic and social life at UofG.
Glasgow provides the ideal base from which to explore the length and breadth of the country. Known for its stunning landscapes, rich history and warm, welcoming people, Scotland is a passionate and innovative country. From spectacular castles to world-renowned festivals, there are plenty of attractions to experience.

**Outdoor activities**
Scotland’s land and coast were made for exploration and adventures. From world-class watersports and walking, to cycling and mountain climbing, the possibilities for getting active in Scotland’s magnificent great outdoors are endless.

**Beaches**
You’ll find some of the UK’s most spectacular beaches dotted along Scotland’s entire coastline. Whether you decide to take part in watersport activities or just go for a relaxing walk, keep your eyes peeled for marine life in the waters and seabirds flying overhead.

**Attractions**
Scotland is filled with attractions to suit every taste and budget, including iconic castles, world-class museums and galleries, fascinating heritage sites and beautiful gardens.

**Film and TV locations**
Scotland has played a starring role on the big and small screen, as the filming location for top films and TV shows including Outlaw King, Mary Queen of Scots, Skyfall, Outlander, Harry Potter and many, many more.

See visitScotland.com.