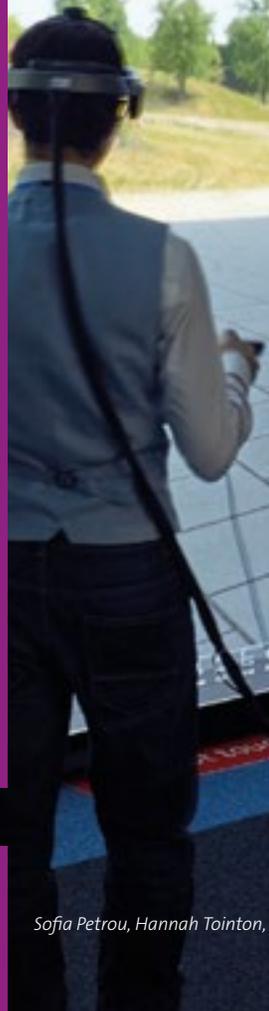




1st
in the UK to
admit women to
an engineering
course in 1920



Welcome to the School of Engineering



Engineers handle innovation on a daily basis. We're constantly looking to make things cheaper, safer, faster, more integrated and more effective – that's why both our teaching and research focus on finding commercial applications, as well as engineering skills.

In the School we prepare you for real engineering jobs through interdisciplinary teaching. People don't work in silos, so students shouldn't learn in them. Our facilities allow you to mimic the processes undertaken by engineers in industry: from researching and testing new products through to considering how to make them commercially viable, how they could be implemented on an industrial scale, and modified and improved once they are in operation.

Our accredited courses will provide you with the skills for your future engineering career and give you the opportunity to reach chartered status. You'll also be able to take advantage of our professional links with industry, network with guest lecturers, participate in field trips and secure industrial internships.

Our researchers have developed industrial and commercial products for some of today's most exciting engineering areas. We're one of the top 20 universities in the UK for engineering research and most of our work is rated internationally as excellent (REF 2014).

The following pages will guide you in making the right decision for your engineering career.

Professor David Mba, Dean

A Professor of Mechanical Engineering, Prof. Mba is an expert in rotating machines technology.

A unique learning environment

In the School we're supported by some outstanding technical facilities. Our design and manufacturing workshops feature the latest computer numerical machining technologies. Our extensive laboratories include dedicated robotics, electronics, thermodynamics and materials testing facilities. Our leading-edge virtual engineering suite combines the latest in 3D software with virtual reality hardware to fully immerse our students in the environments they create. Courses are supported by industry-standard software including Siemens NX, Autodesk Inventor, ANSYS, LabVIEW and MATLAB. Computer science students have access to specialist labs and programs including NetBeans 7.x, Microsoft SQL and Oracle.

Our graduates become

Designers, product manufacturers, project managers and consultants, automotive engineers, petroleum engineers, electrical engineers, networking engineers, chemical process engineers and materials engineers, system analysts and forecasters, quality assurers and asset managers, problem-solvers and innovators.

Driving innovation

The future of the auto industry is exciting – and engineering of all types is crucial to its success. The sector spends millions of pounds every year on research and development and engineering firms look to universities such as LSBU to provide graduates who are ready to meet tomorrow's technology challenges. We asked LSBU engineering students to reflect on what the future might look like.

Caleb Madzokere (MSc (Hons) Mechanical Engineering) is Team Leader of our Formula Student project, which is focused on entering the Institution of Mechanical Engineers' annual student competition this year. It's a prestigious event, with competitors from all over Europe designing, making and testing a single-seat racing car. Alexandros Thomopoulos (BEng (Hons) Mechanical

Engineering) is Team Leader for LSBU's Shell Eco-marathon racing team. The team is working to enter the race next year, which challenges student teams around the world to design, build, test and drive ultra-energy-efficient vehicles.

We talked with them about their projects, and their opinions of the car industry's future.

CM: 'I am really enjoying the fact that you get to see a project through from design, to making, to testing and then competing against other universities – it gives you a chance to put what you have learnt on the course into practice but also learn more about the whole engineering process, as well as developing project management skills, which are vital to success. My role has been to make sure the team as a whole works well

together – assigning projects, meeting deadlines and managing relationships, and this is really important because, in my opinion, engineering is all about communicating your ideas effectively.'

AT: 'That's essentially the same role as mine, but the projects are very different. The aim of the Shell Eco-marathon is to create a machine that is as fuel efficient as possible, whereas Caleb's is all about driving performance – speed and manoeuvrability, and build quality.'

CM: 'We are very much on track for entry. The team last year did a great job and we want to build on their work by entering a similar machine but with a few improvements, like an electronic shift system.'



'I am really enjoying the fact that you get to see a project through from design, to making, to testing and then competing against other universities.'

AT: 'I think we have a lot more to do! We are completely redesigning last year's entry, building a new carbon fibre shell, control system and display dashboard, and drilling the chassis full of holes to make it as lightweight as possible. I'm hoping to include some more innovative parts too, like a GPS and ultrasonic sensor to measure exact fuel consumption – there's a minimum speed of 15.7mph, so it's best to stick exactly to that to use as little fuel as possible. With the right tech, the right car and a small

engine you can drastically lower fuel consumption and CO2 emissions.'

CM: 'Although we are both working on projects powered by an internal combustion engine, I don't really see this as the future of automobile engineering. I think electric cars are the future. There are three ways I see things progressing: hybrid, battery, or hydrogen-powered electric vehicles. The extraction of hydrogen is difficult, and, because batteries are not entirely sustainable – in terms of disposing of them after use – hybrids are the most likely power system we will see gaining popularity because of the limited infrastructure for battery-powered vehicles. However, the massive demand for the Tesla Model X (a fully electric car), even before it has been put into production, shows people are ready to invest in new technology.'

AT: 'I agree. The States are leading the way in a lot of respects. Over there you can find a lot of charging points for the cars, whereas here in the UK and Europe we are way behind in terms of the infrastructure to support the development of the technology. Different companies are experimenting with different models, for example leasing the batteries, or having stocks at charging point, so rather than charge it you just swap it out for a fully charged one. Either way, we need more research and more investment in the technology to bring the price down and make it more accessible for everybody. That's important if we want to enjoy the environmental benefits of the technology.'

Advanced Vehicle Engineering

BEng (Hons)

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 distinctions in Maths and 3 merits in Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Level 3 Physical Science (Physics preferred) and Maths
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You could work for an automotive original equipment manufacturer, a tier supplier, a local transport company or a low-carbon technology centre. Our central London location allows us to develop links with many of these types of companies.

Focus on automotive innovation: sustainable development, future low-emission technologies and urban transportation. Delivered through innovative project-based learning that's supported by industry-leading hardware and software.

The automotive, future low-carbon vehicle technology and motorsport sector is experiencing solid growth in the UK, and employers' demand for engineering graduates is growing. You'll develop the skills, knowledge and expertise so needed by the automotive industry.

It's an opportunity to study the subject to a level consistent with accreditation by the Institution of Mechanical Engineers as a route to chartered engineer status. In the process, you'll be encouraged and expected to take an active role in group and individual projects.

There's the option of a placement in your third year, giving you the opportunity to gain valuable professional experience.

Course modules

Year 1 – Engineering mathematics and modelling / Introduction to mechanical engineering / Thermofluids and dynamics / Introduction to electrical electronic engineering / Design and practice / Engineering computing

Year 2 – Advanced engineering mathematics and modelling / Vehicle design and virtual engineering / Solid mechanics and FEA / Dynamics and control / Thermofluids and sustainable energy / Machine drives and mechatronics

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Manufacturing systems and material technologies / Vehicle dynamics and system modelling / Vehicle powertrain, sustainability and 1D-CFD / BEng individual project

Find your course at www.lsbu.ac.uk/course-finder

Course code

Advanced Vehicle Engineering BEng (Hons): full-time: H330 / part-time: 4706

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Advanced Vehicle Engineering

MEng (Hons)

This course provides you with the opportunity to extend your studies to Masters level. The course focuses on sustainable development, future low-emission technologies and urban transportation.

For the first three years you'll learn alongside BEng students. In the fourth, when you progress to Masters level, you'll join a unique group project designing, making and testing a low-emission urban concept vehicle or high-performance-orientated vehicle. You'll explore advanced-level optional and core modules.

Extending your studies to Masters level is the quickest and easiest way to become a chartered engineer (CEng). On completion, you can take immediate steps towards obtaining CEng status, enhancing your career and salary prospects.

Course modules

Year 1 – Engineering mathematics and modelling / Introduction to mechanical engineering / Thermofluids and dynamics / Introduction to electrical electronic engineering / Design and practice / Engineering computing

Year 2 – Advanced engineering mathematics and modelling / Vehicle design and virtual engineering / Solid mechanics and FEA / Dynamics and control / Thermofluids and sustainable energy / Machine drives and mechatronics

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Manufacturing systems and material technologies / Vehicle dynamics and system modelling / Vehicle powertrain, sustainability and 1D-CFD / MEng individual project

Year 5 – Technical research and professional skills / Electromechanical systems and manufacturing technology / MEng group project / Advanced vehicle dynamics, NVH, structures and crash safety / Advanced powertrain systems, vehicle performance and 3D-CFD

Find your course at www.lsbu.ac.uk/course-finder

Course code

Advanced Vehicle Engineering MEng (Hons): full-time: H335 / part-time: 4708

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 5 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You could work for an automotive original equipment manufacturer, a tier supplier, a local transport company, or a low-carbon technology centre. Our central London location allows us to develop links with many of these types of companies.



Applied Computing

BSc (Hons) / Top-up to BSc

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits or:
- Equivalent Level 3 qualifications worth 112 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for careers in technical fields such as computer operations, computer systems sales and service, programming, systems analysis, software engineering and technical authorship. Computing is also suitable for professions requiring a combination of computing and other capabilities, especially in the world of business and commerce.

We've recently enhanced these courses to place more focus on distributed systems and software engineering. Learn to use an engineering approach to develop software and produce detailed specifications and robustly engineered systems to meet client requirements.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems.

You can study this course as a full BSc (Hons) or join the one-year top-up if you have a relevant HND.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / Developing web applications / Systematic software development / User-centred design / System design techniques

Year 3 – Optional placement year

Year 4 – Distributed computer systems / Engineering software / Honours informatics project / IS project management

Plus one optional module from: Digital content management / Social and collaborative computing / Web services, security and management

The course modules for the Top-up to BSc are as Year 4 plus: Research and professional practice / Systematic software development

Find your course at www.lsbu.ac.uk/course-finder

Accredited by the
British Computer Society



Course code

Applied Computing BSc (Hons): full-time: G409 / 4 years part-time: 4156 / 6 years part-time: 4935
Top-up: full-time: G410 / part-time: 4746

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Business Information Technology

BSc (Hons) / Top-up to BSc

These courses are ideal if you're interested in information systems management and gaining further IT skills. You'll combine system development skills with business-oriented knowledge, making you attractive to employers.

The course offers practical skills underpinned by sound understanding in the analysis, design and development of computer-based systems and an understanding of the hardware, software and network infrastructure that supports them.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems. You can study this course as a full BSc (Hons) or join the one year top-up if you have a relevant HND.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / Managing technological innovation / Management concepts and evaluation techniques / User-centred design / System design techniques

Year 3 – Optional placement year

Year 4 – Information management and decision support systems / Strategic IT management / Honours informatics project / IS project management

Plus one optional module from: IT systems administration / Digital content management

The course modules for the Top-up to BSc are as Year 4 plus: Research and professional practice / Management concepts and evaluation techniques

Find your course at www.lsbu.ac.uk/course-finder

Course code

Business Information Technology BSc (Hons): full-time: G520 / 4 years part-time: 4156 / 6 years part-time: 4935
Top-up: full-time: G525 / part-time: 4006

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits including 3 Merits in Maths and 12 Merits in ICT or:
- Equivalent Level 3 qualifications worth 106 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You could work for an automotive original equipment manufacturer, a tier supplier, a local transport company, or a low-carbon technology centre. Our central London location allows us to develop links with many of these types of companies.



Chemical Engineering

HND

Typical entry requirements

- A Level DDD or:
- BTEC National Diploma MMP or:
- Access to HE qualifications with 24 Merits and 21 Passes or:
- Equivalent Level 3 qualifications worth 80 UCAS points
- Level 3 qualifications must include Maths or Science (Chemistry preferred)
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 2 years full-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Will give you the skills to work in chemical/biochemical engineering in roles including power plant engineer and gas plant engineer. Many graduates top up their qualification to degree level.

Learn how to change raw materials into useful and safe products for everyday use – to apply to careers in chemical and biochemical engineering.

On the HND, you'll study the fundamentals of chemical engineering through a combination of theoretical, practical and project work that concerns the alteration of substances' chemical, biochemical or physical states. There'll also be a strong emphasis on design.

The HND has been designed to integrate with two full degree programmes at LSBU. If you complete the HND course with appropriate grades, you are eligible to join Year 2 of either the BEng (Hons) Chemical and Process Engineering or BEng (Hons) Petroleum Engineering programmes, obtaining an honours degree after two additional years of study.

Course modules

Year 1 – Study and laboratory skills / Scientific principles for engineering / Engineering principles / Introduction to chemical and petroleum engineering / Applied mathematics 1

Year 2 – Design and practice / Engineering mathematics and modelling / Thermodynamics / Fluids and separation / Chemical industrial processes

Find your course at www.lsbu.ac.uk/course-finder

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Chemical and Process Engineering

BEng (Hons)

Chemical engineering looks at the processes where materials undergo physical and chemical changes. Chemical products range from petrol and plastics to medicines, food and drink.

You'll prepare for a career in which you'll research and test new products, make them commercially viable, implement them on an industrial scale and continue to improve them.

And as you'll be studying on a BEng programme, you'll gain a deeper understanding of the essential facts, concepts, theories and principles of chemical engineering. You'll gain the knowledge the recruiters look favourably on in BEng graduates.

Course modules

Year 1 – Engineering principles / Design and practice 1 / Engineering mathematics and modelling / Introduction to chemical and petroleum engineering / Engineering computing

Year 2 – Chemical engineering processes 1 / Chemical engineering design and practice / Thermodynamics / Fluids and separation / Advanced engineering mathematics and modelling / Principles of control

Year 3 – Optional placement year

Year 4 – Chemical engineering design project / Chemical engineering processes 2 / Advanced fluids and control / Process safety and environment protection

Plus one optional module from: Clean process technology / Innovation and enterprise

Find your course at www.lsbu.ac.uk/course-finder

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for work in the chemical and process engineering industry across the oil and gas, food and drink, pharmaceuticals, energy, and chemical products sectors. For example, running projects designing and simulating chemical processes, or developing new plants, systems and processes as a research and development engineer.

Course code

Chemical Engineering HND:
008H

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

Course code

Chemical and Process
Engineering BEng (Hons): H801

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75



Accredited by the Institution of
Chemical Engineers (IChemE)

Chemical and Process Engineering

MEng (Hons)

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for work in the chemical and process engineering industry across the oil and gas, food and drink, pharmaceuticals, energy, and chemical products sectors. For example, running projects designing and simulating chemical processes, or developing new plants, systems and processes as a research and development engineer.

Our MEng (Hons) Chemical and Process Engineering option offers you a chance to combine undergraduate and postgraduate levels of study over four years. It provides the most direct route to achieving chartered engineer (CEng) registration, with CEng chemical engineers earning more than their counterparts without the professional status.

You'll prepare for a career in which you'll research and test new products, make them commercially viable, implement them on an industrial scale and continue to improve them.

You'll have access to a wide range of industry-standard software and work with our new chemical lab equipment.

Course modules

Year 1 – Engineering principles / Design and practice 1 / Engineering mathematics and modelling / Introduction to chemical and petroleum engineering / Engineering computing

Year 2 – Chemical engineering processes 1 / Chemical engineering design and practice / Thermodynamics / Fluids and separation / Advanced engineering mathematics and modelling / Principles of control

Year 3 – Optional placement year

Year 4 – Chemical engineering design project / Chemical engineering processes 2 / Advanced fluids and control / Process safety and environment protection

Plus one optional module from: Clean process technology / Innovation and enterprise

Year 5 – Group project / TRAPS / Materials engineering / Advanced reaction engineering

Plus optional modules from: Introduction to project management / Process management / Energy management and sustainability / Multiphase fluid flow

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code	Applications
Chemical and Process Engineering MEng (Hons): H804	Full-time: Apply direct to UCAS www.ucas.com Institution code: L75



Computer Engineering

BEng (Hons)

The course combines electrical and electronic engineering, computer science and informatics. You'll explore a range of computer engineering applications, as well as designing and developing software, hardware and networking systems.

We're hands-on, so you'll carry out design-make-test projects throughout the course rather than just at its end, adapting theoretical principles to real-world engineering problems early on in your university career. It's an innovative approach that appeals to many recruiters; as does the BEng format, which encourages you to gain a deeper understanding of the essential facts, concepts, theories and principles of computer engineering and its underpinning science and mathematics.

Course modules

Year 1 – Engineering mathematics and modelling / Principles of electronics and computer engineering / Data communications and networks / Engineering principles / Engineering computing / Design and practice

Year 2 – Computer architecture and operating systems / Engineering software, data structures and algorithms / Team design project / Object-oriented software design and network programming / Digital systems and microprocessor design / Computer networks and mobile computing

Year 3 – Optional placement year

Year 4 – Core modules: Embedded systems and the Internet of Things / Systems and software engineering / BEng project

Plus optional modules from: Innovation and enterprise / Advanced computer engineering / Signals and systems / Digital systems design / Computer graphics and multimedia systems / Software development and computer games programming / High-performance computing / Artificial intelligence

Find your course at www.lsbu.ac.uk/course-finder

Course code	Applications
Computer Engineering BEng (Hons): full-time GH63 / part-time: 4631	Full-time: Apply direct to UCAS www.ucas.com Part-time: Apply direct to LSBU www.lsbu.ac.uk Institution code: L75

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You could work in computer engineering, software engineering or commerce. Potential roles include computer network administration under Windows and Unix/Linux, software engineering and design using Java and C++. Or you could work independently as a developer, a tester or an evaluator of any kind of hardware and software application.

LSBU and IBM are strategic partners and are collaborating on the content of this course

Computer Engineering

MEng (Hons)

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 6 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You could work in computer engineering, software engineering or commerce. Chartered engineers (CEng) have the greatest level of responsibility for complete engineering projects and develop solutions to problems using new or existing technologies in strategic roles.

The MEng (Hons) version of Computer Engineering offers an integrated route, combining undergraduate and postgraduate levels of study over four years. The chance to transfer from BEng to MEng will come at the end of your second year.

Extending your studies to Masters level is the quickest and easiest way to become a chartered engineer (CEng). On completion, you can take immediate steps towards obtaining chartered engineer status, enhancing your career and salary prospects.

There's greater breadth and depth to studying MEng too. You'll develop expertise in advanced technical topics, gain high-level computing skills and become capable of developing new technologies, promoting complex designs and introducing new, more efficient production techniques.

Course modules

Year 1 – Engineering mathematics and modelling / Principles of electronics and computer engineering / Data communications and networks / Engineering principles / Engineering computing / Design and practice

Year 2 – Computer architecture and operating systems / Engineering software data structures and algorithms / Team design project / Object-oriented software design and network programming / Digital systems and microprocessor design / Computer networks and mobile computing / Advanced engineering mathematics and modelling

Year 3 – Optional placement year

Year 4 – Embedded systems and the Internet of Things / Systems and software engineering / Innovation and enterprise / Advanced computer engineering BEng project – and a selection of elective modules

Year 5 – **Core modules:** Technical research and professional skills / Cyber security and cryptography / MEng group project – **Elective modules:** Pattern recognition and machine learning / Digital signal processing and real-time systems / Advanced networking technologies / Cloud computing and virtualisation / Technology evaluation and commercialisation / Computer network design / Computer vision and image processing / Communications, information theory and coding

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code	Applications
Computer Engineering MEng: full-time: GH64 / part-time (6 years): 4640	Full-time: Apply direct to UCAS www.ucas.com Part-time: Apply direct to LSBU www.lsbu.ac.uk Institution code: L75



Computer Science

BSc (Hons)

Designed in collaboration with IBM, this course combines the expertise of computer science and informatics with electrical and electronic engineering. You'll study the theory and the practical approach of computation, as well as the design and implementation process for various applications.

Today, there is a high demand for people who can write innovative code for distributed, real-time, embedded systems. On the course, you'll acquire software engineering and computing skills with the knowledge to deliver systems.

Your deeper understanding of the essential facts, concepts, theories and principles of computer science – and its underpinning science and mathematics – will be looked on favourably by many recruiters. There's the option of a sandwich year or shorter internships too, boosting your employability.

Course modules

Year 1 – Fundamentals of computer science / Fundamentals of software development / Business and professional issues / Principles of data networks / Data structures and algorithms / Mathematics for computer science

Year 2 – Database systems / Object-oriented programming / Operating systems / Software engineering / UIs, events and concurrency / User-centred design

Year 3 – Optional placement year

Year 4 – Honours computer science project / Systems and cyber security

Plus one optional module from: IS project management / Innovation and enterprise

Plus one optional module from: Digital content management / Distributed computer systems / High-performance computing / Mobile computing / Principles of data mining

Plus a final option from: Artificial intelligence / Cloud computing / Embedded systems and the Internet of Things / Engineering software / Social and collaborative computing

Find your course at www.lsbu.ac.uk/course-finder

Course code	Applications
Computer Science BSc (Hons): full-time: G407 / part-time: 4638	Full-time: Apply direct to UCAS www.ucas.com Part-time: Apply direct to LSBU www.lsbu.ac.uk Institution code: L75

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Merits in Maths and 12 Merits in ICT or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You may find a role as a computer programmer, software or web developer, IT consultant, systems or IT analyst, applications designer or database administrator. This could be in wide-ranging organisations including banking, finance, management and specialist computing companies.

Designed in collaboration with IBM

Computer Systems and Networks Engineering

BEng (Hons)

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Level 3 qualifications must include Maths
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for computer network administration roles under Windows and Unix, as well as software engineering and design using Java and C++. Recent graduates work as computer networking engineers, embedded systems developers and senior computer programmers, among other roles.



Accredited by the Institution of Engineering and Technology (IET), as a step to chartered engineer status

Advances in applying computer systems to engineering and commerce have been phenomenal in recent years.

We've particularly seen this in the use of computer networks in applications ranging from mobile communications to server-clustering in multinational corporations.

On the course you'll use industry-standard equipment to carry out assignments in network configuration and management. And you'll disassemble, rebuild and configure a PC at sub-component level.

BEng programmes include advanced mathematics, which many recruiters look favourably on. And if you decide to work in an optional industry placement, you'll improve your job prospects even further.

Course modules

Year 1 – Engineering mathematics / Principles of computer engineering / Introduction to data communication and networks / Engineering principles / Engineering computing / Design and practice

Year 2 – Operating systems and multimedia / Introduction to communication systems and networks L5 / Engineering software C++ / Computer networks / Team design project

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Systems and software engineering / Network technologies and design / Advanced computer engineering / Project

Find your course at www.lsbu.ac.uk/course-finder

Course code

Computer Systems and Networks Engineering BEng (Hons): full-time: H650 / part-time: 2419

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Computer Systems and Networks Engineering

MEng (Hons)

A balanced programme of computer hardware, interface electronics, programming for real-time and embedded systems and telecommunications – supported by modules in analysis, software and database design.

On the course you'll use industry-standard equipment to carry out assignments in network configuration and management. And you'll disassemble, rebuild and configure a PC at sub-component level.

The course extends your studies to Masters level and provides greater breadth and depth of study, which is the quickest and easiest way to become a chartered engineer (CEng).

Course modules

Year 1 – Engineering mathematics / Principles of computer engineering / Introduction to data communication and networks / Engineering principles / Engineering computing / Design and practice

Year 2 – Operating systems and multimedia / Introduction to communication systems and networks / Engineering software C++ / Computer networks / Team design project / Objects-oriented software

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Systems and software engineering / Network technologies and design / Advanced computer engineering / Project

Year 5 – Technical research and professional skills / Computer network design / Group project

Plus two options from Masters-level modules across the subject area

Find your course at www.lsbu.ac.uk/course-finder

Course code

Computer Systems and Networks Engineering MEng (Hons): full-time: H651 / part-time: 4619

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 138 UCAS points
- Level 3 qualifications must include Maths
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 6 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for computer network administration roles under Windows and Unix, as well as software engineering and design using Java and C++. Recent graduates work as computer networking engineers, embedded systems developers and senior computer programmers, among other roles.

Computer Systems Management

BSc (Hons) / Top-up to BSc

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits including 3 Merits in Maths and 12 Merits in ICT or:
- Equivalent Level 3 qualifications worth 112 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Enables you to design and run networked systems on both local and enterprise scales – skills that are in high demand from business and industry.

This course is for those interested in understanding, managing and designing the IT systems needed by modern organisations. You'll enjoy a balanced programme combining business and management with more technical subjects, and you'll gain experience of industry-standard equipment and systems software.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems.

You can study this course as a full BSc (Hons) or join the one-year top-up if you have a relevant HND.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / Managing technological innovation / IT infrastructure and management / User-centred design / System design techniques

Year 3 – Optional placement year

Year 4 – IT systems administration / Network configuration and management / Honours informatics project / IS project management

Plus one optional module from: Social and collaborative computing / Web services, security and management

The course modules for the Top-up to BSc are as Year 4 plus: Research and professional practice / IT infrastructure and management

Find your course at www.lsbu.ac.uk/course-finder

Course code

Computer Systems Management BSc (Hons):
full-time: G490 / 4 years part-time: 4156 / 6 years part-time: 4935 **Top-up:** full-time: G404 / part-time: 4006

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Computing

Foundation Year

This course is designed primarily for applicants who do not satisfy the requirements for entry to your first year of a degree course, but have the necessary experience and maturity to succeed at degree level.

You'll commence your Foundation Year or Extended Degree studies with a range of subjects that provide a sound academic and technical basis for the challenges that will confront you in your first year of your degree studies.

The Extended Degree is not freestanding. Instead, you should think of it as the first year of a four-year period of study leading to the award of a BSc (Hons) in Computing or another related course.

Undertaking this Computing Extended Degree course will help you to develop the confidence and maturity needed to be successful in your career through project work and active participation in tutorials and seminars.

Course modules

Mathematics 1 / Computer applications / Technical communications / Mathematics 2 / Software development / Computer technology / Foundation project

Find your course at www.lsbu.ac.uk/course-finder

Course code

Computing Foundation Year:
G402

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

Typical entry requirements

- A Level DD or:
- BTEC National Diploma MPP or:
- Access to HE qualifications with Pass or:
- Equivalent Level 3 qualifications worth 64 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 1 year full-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

These will depend on your future study at LSBU following the course. Please look at the relevant career opportunities for the BSc courses in the computing and informatics disciplines you're interested in.



Data Science

BSc (Hons) / Top-up to BSc

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits or:
- Equivalent Level 3 qualifications worth 112 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you to work in business intelligence within a range of organisations across all sectors. Companies are recruiting people with the ability to develop and implement effective business intelligence solutions.

LSBU and IBM are strategic partners and are collaborating on the content of this course

Develop essential knowledge and skills for business intelligence data science solutions and systems to support data-driven decision-making in business and engineering – an area in high demand in almost every industry.

You'll have access to sophisticated business intelligence data science and analytical platforms, including Microsoft Excel, Tableau, SAS Enterprise Miner, SAS Enterprise Guide, SQL Server 2012 and Hadoop.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems.

You can study this course as a full BSc (Hons) or join the one-year top-up if you have a relevant HND.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / Managing technological innovation / Introduction to data science / User-centred design / System design techniques

Year 3 – Optional placement year

Year 4 – Principles of data mining / Designing BI systems / Honours informatics projects / IS project management / Strategic IT management

The course modules for the Top-up to BSc are the same as Year 4, plus: Research and professional practice / Introduction to data science

Find your course at www.lsbu.ac.uk/course-finder

Course code

Data Science BSc (Hons):
full-time: l260
/4 years part-time: 4156
/6 years part-time: 4935
Top-up: full-time: l261
/part-time: 4751

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Electrical and Electronic Engineering

HND

Increase your work prospects in electrical and electronic engineering by developing the skills and knowledge needed to succeed.

You'll learn to design, construct and test standard digital and analogue circuits, moving on to multi-stage and programmable circuits. You'll also work on your own independent project as part of the 'Engineering applications 2' module, gaining experience of industry-standard equipment and simulation packages in the process.

When you finish the course, you may choose to transfer to one of our BEng (Hons) degrees in Electrical and Electronic Engineering; Telecommunications Engineering; or Computer Systems and Networks.

Course modules

Electrical principles (DC and AC) / Mathematics / Industrial studies / Engineering applications 1 (work-based for part-time students) / Software engineering / Digital and analogue electronics / Software engineering / Microprocessor systems / Control engineering / Engineering applications 2 (work-based for part-time students) / Computer systems and networks / Electrical technology / Electrical building services

Find your course at www.lsbu.ac.uk/course-finder

Course code

Electrical and Electronic Engineering HND:
full-time: 006H
/ part-time: 4150

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Typical entry requirements

- A Level DDD or:
- BTEC National Diploma MMP or:
- Access to Engineering qualifications with 24 Merits and 21 Passes or:
- Equivalent Level 3 qualifications worth 74 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 2 years full-time
- 2 years part-time (1-day-per-week)
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for work in sectors where electrical or electronic systems are used. Recent students from the course work in transport, entertainment, the public sector and the medical and public service and supply industries.

Electrical and Electronic Engineering

BEng (Hons)

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for work in electrical and electronic engineering, specifically in embedded control systems where large-scale integrated circuits are programmed and used to automate typical processes.

Electrical and electronics engineers design, develop and maintain electrical control systems. Most sectors – and areas of modern life – rely on their work, checking that electrical devices are safe and developing new technologies for the future.

On the course you'll gain a strong understanding of design techniques for electronics systems, as well as their use in areas such as control, communications and consumer products. You'll also use the latest computer-interfacing technologies in our National Instruments Laboratory.

There's the option to work in an industry placement for a year too. Alternatively, you could follow our study abroad programme at one of our partner institutions in Europe.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Engineering principles / Introduction to electrical and electronic engineering / Introduction to digital electronics / Engineering computing

Year 2 – Advanced engineering mathematics / Circuits, signals and systems / Principles of control / Electrical machines and power electronics / Team design project / Analogue and digital design

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Control engineering / Project / Advanced analogue and RF electronics / Digital systems design

Find your course at www.lsbu.ac.uk/course-finder

Course code

Electrical and Electronic Engineering BEng (Hons):
full-time: H600
/ part-time: 502

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Electrical and Electronic Engineering

MEng (Hons)

The MEng (Hons) version of Electrical and Electronic Engineering offers an integrated route, combining undergraduate and postgraduate study over four years. It's the most direct path to achieving chartered engineer (CEng) status, with chartered engineers typically earning more than their colleagues.

You'll learn in an environment in tune with the leading technologies, using the latest computer-interfacing technologies in our National Instruments Laboratory. You'll gain the knowledge and training you'll need to meet future demands for products and services.

Our vocational approach to teaching will have a positive impact on your job prospects too. You'll graduate not only understanding the theory but also able to confidently apply your skills to the workplace.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Engineering principles / Introduction to electrical and electronic engineering / Introduction to digital electronics / Engineering computing

Year 2 – Advanced engineering mathematics / Circuits, signals and systems / Principles of control / Team design project / Electrical machines and power electronics / Analogue and digital circuit design

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Control engineering / Project / Advanced analogue and RF electronics / Digital systems design

Year 5 – Technical, research and professional skills / Advanced instrumentation and design / Digital signal processing and real-time systems / Advanced power electronics and renewable energy systems / Group project

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code

Electrical and Electronic Engineering MEng (Hons):
full-time: H605
/ part-time: 4529

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5.5 years sandwich
- 5 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You'll be ready for work in any electrical and electronic engineering business where electronic systems are in use. Recent graduates work in transport, entertainment, the medical and public sectors, and the public service and supply industries.

Electrical Engineering and Power Electronics

BEng (Hons)

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Career prospects are excellent in this growing engineering sector. Graduate electrical engineers command high salaries and are often involved in cutting-edge projects. You could work for industry players ranging from large national grid operators to regional distribution and power generation companies.

Engineers in this sector help to make sure our electrics are safe and reliable, and that the relevant systems are capable of performing to high standards of quality.

They provide lighting, heating and ventilation for buildings, ensure that our transport networks run efficiently, and help power the manufacturing and construction industries. Our course will prepare you for working in these roles and others.

You'll gain a deep understanding of electrical engineering along with its underpinning science and mathematics. You'll also become knowledgeable about applications involving power electronics in the transport, infrastructure and built environment areas.

You can progress to our integrated MEng, which offers the most direct route to chartered engineer (CEng) status.

Course modules

Year 1 – Mathematics / Engineering principles / Design and practice / Introduction to digital electronics / Engineering computing / Introduction to electrical and electronic engineering

Year 2 – Advanced mathematics / Circuits, signals and systems / Electrical machines and power electronics / Electrical services for buildings / Principles of control / Team design project

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Control engineering / Individual project / Electrical energy converters and drives / Lighting

Find your course at www.lsbu.ac.uk/course-finder

Course code

Electrical Engineering and Power Electronics BEng (Hons): full-time: H630 / part-time: 4633

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Electrical Engineering and Power Electronics

MEng (Hons)

There are few parts of our life that don't owe at least something to electrical engineering. Roles demand advanced technical skills and are generously rewarded. Entry-level graduate engineers tend to earn salaries around £20,000 to £30,000, with experienced chartered engineers able to earn up to £70,000.

Studying our MEng, as opposed to the BEng option, offers the most direct route to chartered engineer (CEng) status. There's a greater breadth and depth to your study too, adding to your employability.

A chartered engineer has the greatest level of responsibility for completing engineering projects and develops solutions to problems using new or existing technologies in a strategic role.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Engineering principles / Introduction to electrical and electronic engineering / Introduction to digital electronics / Engineering computing

Year 2 – Advanced mathematics / Circuits, signals and systems / Electrical machines and power electronics / Electrical services for buildings / Principles of control / Team design project

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Control engineering / Individual project / Electrical energy converters and drives / Lighting

Year 5 – Technical research and professional skills / Power systems engineering / Systems for environmental services / Advanced power electronics and renewable energy / Multidisciplinary group project

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code

Electrical Engineering and Power Electronics MEng (Hons): full-time: H631 / part-time: 4623

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 138 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 6 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Career prospects are excellent in this growing engineering sector. Graduate electrical engineers command high salaries and are often involved in cutting-edge projects. You could work for industry players ranging from large national grid operators to regional distribution and power generation companies.



Accredited by the Institution of Engineering and Technology (IET), as fast-track progression to chartered engineer status



Accredited by the Institution of Engineering and Technology (IET), as a step to chartered engineer status



Engineering

Extended Degree Programme

Typical entry requirements

- A Level DD or:
- BTEC National Diploma MPP or:
- Access to HE qualifications with Pass or:
- Equivalent Level 3 qualifications worth 64 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 1 year full-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Each of the four pathways on the course leads to a different BSc or BEng degree course. For further careers information, see the relevant degree course page.

This is your way into the engineering profession if you haven't followed the traditional route of Science and Maths A Levels. It's likely you'll have some experience of the workplace, paid or otherwise.

The course allows you to go on to study one of our HNC, HND, BSc (Hons), BEng (Hons) or MEng (Hons) courses in a range of engineering subjects. There are four engineering pathways, each leading to a different course.

On the Extended Degree Programme, you'll cover the fundamentals of science and mathematics, and learn how to use technology relevant to engineering.

You'll be prepared to progress to one of the following undergraduate courses: Electrical and Electronic Engineering / Telecommunications Engineering / Mechanical Engineering / Building Services Engineering / Civil Engineering / Chemical Engineering / Bioscience

Course modules

Semester 1 – Applied mathematics / Scientific principles for engineering / Study and laboratory skills

Semester 2 – Mathematics for engineering / Engineering science

Plus one specialist module: Practical electronics (electronic engineering) / Engineering design and modelling (mechanical and building services engineering) / Chemistry and applications (chemical and petroleum engineering) / Constructing the built environment (civil engineering)

Find your course at www.lsbu.ac.uk/course-finder

Course code

Engineering Extended Degree Programme: full-time: H101

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Engineering Product Design

BSc (Hons)

Engineering product designers blend brilliant creative thinking with scientific analysis and insight. They create products that deal with everyday problems – from solving minor inconveniences like leaky teapots to tackling major issues such as launching lifeboats faster.

This course bridges the gap between Product Design and Mechanical Engineering. Through the course modules, you'll cover the complete design cycle – from conceptual design to prototyping and manufacture, and everything in between. You'll benefit from the use of our industry-standard CAD/CAM systems, rapid prototyping technologies and physical model-making techniques.

You'll graduate with a portfolio of key skills and experience, including the production of design drawings and working prototypes, digital design skills in CAD and graphics, technical engineering analysis and presentation and communication skills.

The third-year industry placement is a great opportunity to test and adapt what you've learned. It's also an invaluable networking opportunity and students often secure jobs at their placement companies after graduating.

Course modules

Year 1 – Design methods / Digital design and modelling / Visual communications / Introduction to mechanical and electronic engineering / Engineering mathematics

Year 2 – Design thinking and applications / Virtual engineering and CAD / Mechatronics / Solid mechanics and FEA / Design contexts and communications / Design and manufacture by project

Year 3 – Optional placement year

Year 4 – Engineering design project / Research methods for design projects / Manufacturing systems / Portfolio engineering projects / Innovation and enterprise

Find your course at www.lsbu.ac.uk/course-finder

Course code

Engineering Product Design BSc (Hons): full-time: H770

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

Typical entry requirements

- A Level BBB (must include Maths) or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits must include a minimum of 3 Merits in Design Technology, Maths and Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Level 3 qualifications must include Maths or Physics
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above)
- May require a portfolio and interview.

Course overview

- 3 years full-time
- 4 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for careers in technical product design and development. Recent graduates work with world-class companies including Hasbro, Dyson, Fiat, Gillette and LEGO.

Accredited by the Institution of Engineering Designers (IED) as fully meeting the academic requirement for registration for IEng status and partially meeting the academic requirement for registration as chartered technical product designer



Information Technology

BSc (Hons) / Top-up to BSc

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits including 3 Merits in Maths and 12 Merits in ICT or:
- Equivalent Level 3 qualifications worth 112 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Our graduates have excellent career prospects in IT roles spanning project management, general IT management, IT systems/business analyst and information systems management.

On this course, you'll gain practical skills underpinned by sound theoretical understanding. You'll then be able to apply these in jobs where you analyse, design and implement computer-based systems.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems.

You can study this course as a full BSc (Hons) or join a one-year top-up if you have a relevant HND.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / User-centred design / System design techniques

Plus three optional modules from: Developing web applications / IT infrastructure and management / Introduction to data science / Management concepts and evaluation techniques / Systematic software development / Managing technological innovation

Year 3 – Optional placement year

Year 4 – Honours informatics project / IS project management

Plus three optional modules from: Distributed computer systems / IT systems administration / Digital content management / Principles of data mining / Information management and decision support systems / Social and collaborative computing / Web services, security and management / Engineering software / Network configuration and management / Strategic IT management / Data analytics systems design and development

The course modules for the Top-up to BSc are as Year 4 plus: Research and professional practice / three optional modules from the informatics portfolio.

Find your course at www.lsbu.ac.uk/course-finder

Course code

Information Technology BSc (Hons): full-time: GK00 / 4 years part-time: 4156 / 6 years part-time: 4935
Top-up: full-time: G406 / part-time: 4006

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Mechanical Engineering

BEng (Hons)

Mechanical engineers work in almost every sector you can think of – energy, transport, aviation, motor companies, robotics, pharmaceuticals and the marine industry. And wherever you want to go, a degree in mechanical engineering can help you get there.

There's a real practical focus on this course, with substantial laboratory and workshop activities. And your individual final-year project will be a design-make-test project that simulates the tasks and challenges mechanical engineers face.

BEng programmes include advanced applied mathematics and many recruiters look favourably on BEng graduates for this reason. The optional industry placement could help improve your career prospects all the more.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Introduction to mechanical engineering / Thermofluids and dynamics / Introduction to electrical engineering / Engineering computing

Year 2 – Advanced engineering mathematics and modelling / Engineering design / Solid mechanics and FEA / Dynamics and control / Thermofluids and sustainable energy / Machine drives and mechatronics

Year 3 – Optional placement year

Year 4 – Project / Manufacturing systems and materials technologies / Dynamics and systems modelling / Innovation and enterprise / Thermofluids and turbo machinery

Find your course at www.lsbu.ac.uk/course-finder

Course code

Mechanical Engineering BEng (Hons): full-time: H300 / part-time: 592

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 9 Merits in Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for a career as a mechanical engineer and is the first step towards becoming a chartered engineer. Graduates work with world-class companies including Rolls-Royce, KBR and EDF.

Institution of MECHANICAL ENGINEERS

Accredited by the Institution of Mechanical Engineers (IMechE), as a step to chartered engineer status

Mechanical Engineering

MEng (Hons)

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 9 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Level 3 qualifications must include Maths or Physical Science
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 5.5 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Work in one of a wide range of industrial sectors such as power, construction, manufacturing, the motor or marine industries or pharmaceuticals. Companies currently employing graduates from this course include Rolls-Royce, KBR and EDF.

Work in one of a wide range of industrial sectors such as power, construction, manufacturing, the motor or marine industries or pharmaceuticals.

You'll gain the in-depth technical training needed to practise as a mechanical engineer, alongside a deeper understanding of the subject's essential concepts and theories and its underpinning science and mathematics.

In your career, you could be involved in managing people and resources, as well as developing new materials and technologies.

The majority of our part-time students work in industry while they study, most benefiting from major career advances by the time they graduate.

Course modules

Year 1 – Engineering mathematics and modelling / Introduction to mechanical engineering / Thermofluids and dynamics / Introduction to electrical engineering / Design and practice / Engineering computing

Year 2 – Advanced engineering mathematics and modelling / Engineering design / Solid mechanics and FEA / Dynamics and control / Thermofluids and sustainable energy / Machine drives and mechatronics

Year 3 – Optional placement year

Year 4 – Manufacturing systems and materials technologies / Dynamics and systems modelling / Innovation and enterprise / Thermofluids and turbo machinery / Individual project

Year 5 – Group project / Technical research and professional skills / Electromechanical systems and manufacturing technology / Energy, the environment and product life-cycle / Engineering design, analysis and manufacture / Supply chain engineering and operational management / Advanced thermofluids and energy analysis / Advanced solid mechanics and dynamics

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code

Mechanical Engineering MEng (Hons): full-time: H305 / part-time: 4530

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Petroleum Engineering

BEng (Hons)

Petroleum engineers find themselves working with geoscientists, other engineers and commercial managers to find the best places to locate wells, predict how much oil or gas is there, and how best to recover it efficiently.

You'll learn the fundamentals of petroleum engineering and its industrial application, meaning that you can apply your skills to the workplace as well as understand the theory.

As you'll be studying on a BEng programme, you'll gain a deep understanding of the essential facts, concepts, theories and principles of engineering; this is why recruiters look favourably on BEng graduates. There's the option to spend a sandwich year in an industry placement, which will improve your career prospects all the more.

Course modules

Year 1 – Engineering principles 1 / Engineering principles 2 / Design and practice / Engineering mathematics and modelling / Introduction to chemical and petroleum engineering / Engineering computing

Year 2 – Geoscience, well drilling and logging / Thermodynamics / Advanced engineering mathematics and modelling / Principles of control / Fluid and separation / Reservoir engineering and petroleum economics

Year 3 – Optional placement year

Year 4 – Design project / Production engineering / Petroleum process and control / Innovation and enterprise / Reservoir management / Process safety and environment protection

Find your course at www.lsbu.ac.uk/course-finder

Course code

Petroleum Engineering BEng (Hons): full-time H850

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75



Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Level 3 qualifications must include Maths and Science (Chemistry preferred)
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

As the degree is closely integrated with BEng (Hons) Chemical Engineering, you'll be ready for a career as a professional engineer in the petroleum or chemical process industries. Many employers prefer to recruit graduates with accredited degrees.



Accredited by the Institution of Chemical Engineers (IChemE) and the Energy Institute

Petroleum Engineering

MEng (Hons)

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 39 Distinctions and 6 Merits including 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Level 3 qualifications must include Maths and Science (Chemistry preferred)
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You'll be ready to develop a career in the petroleum industry but also be suitably qualified to work in the chemical process industries.

Our MEng (Hons) Petroleum Engineering option is your chance to combine undergraduate and postgraduate levels of study over four years. It offers the most direct route to achieving chartered engineer (CEng) registration, with CEng engineers earning more than their counterparts without the professional status.

You'll gain valuable hands-on experience of industry software, which you can use in the design project we set you. This, and the investigative and laboratory technique work you'll undertake, will equip you with skills you can transfer to the workplace.

If you take the sandwich option, and spend a year in a placement, you'll gain even more understanding of how the industry functions.

Course modules

Year 1 – Engineering principles 1 / Engineering principles 2 / Design and practice / Engineering mathematics and modelling / Introduction to chemical and petroleum engineering / Engineering computing

Year 2 – Advanced engineering mathematics and modelling / Thermodynamics / Fluid and separation / Geoscience, well drilling and logging / Principles of control / Reservoir engineering and petroleum economics

Year 3 – Optional placement year

Year 4 – Design project / Production engineering / Petroleum process and control / Innovation and enterprise / Reservoir management / Process safety and environment protection

Year 5 – Technical, research and professional / Petroleum geosciences / Petroleum economics / Advanced reservoir engineering / Group project

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code

Petroleum Engineering MEng (Hons): full-time: H855

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75



Product Design

BSc (Hons)

This course teaches you how to design effective products, services and systems and become a well-rounded designer with a broad range of skills.

In addition to developing creativity and problem-solving, drawing, presentation and computing skills, you'll learn about design methods, materials, manufacturing processes and basic engineering principles. You'll have the opportunity to develop your products from concept to final model and prototype.

The course is centred on studio and workshop-based design assignments and you'll spend much of your time involved in design project work. Individual project work allows you to develop as a designer, while group work reflects the reality of your future professional life. You are encouraged to spend your third year on an industrial placement.

At the end of your final year you'll display your work in our end-of-year degree show.

Course modules

Year 1 – Design methods / Visual communications / Digital design and modelling / Inclusive design and usability / Design for a sustainable society

Year 2 – Design thinking and applications / Design contexts and communications / Design futures and emerging technologies / Digital visualisation and CAD / Design interactions / Design and manufacture project

Year 3 – Optional placement year

Year 4 – Research methods for design projects / Portfolio design projects / Design and culture / Service and system design / Product design project

Find your course at www.lsbu.ac.uk/course-finder

Accredited by the Institution of Engineering Designers (IED) as fully meeting the academic requirement for registration as a registered product designer and partially meeting requirements for a chartered technical product designer



Course code

Product Design BSc (Hons): full-time: H711

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits must include a minimum of 3 Merits in Design Technology, Maths and Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Level 3 qualifications must include art/design or show evidence of engagement with creativity
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above)
- May require a portfolio and interview.

Course overview

- 3 years full-time
- 4 years sandwich
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for careers in product design and development in design consultancies and manufacturing companies. Recent graduates work for: LEGO, VosLED, Cogent Healthcare Systems, BDP and Complete Fabrication. Others have set up businesses or work as freelance product designers.



Special Effects Design

BSc (Hons)

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits must include a minimum of 3 Merits in Design Technology, Maths and Physics or:
- Equivalent Level 3 qualifications worth 128 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

You'll be ready to work in a commercial special effects environment across the TV, film, theatre, advertising and model-making industries.

This course is for those interested in developing the specialist skills and knowledge needed to design special effects (SFX) for TV, film, theatre and advertising.

We'll encourage you to think about the subject broadly, drawing on influences from outside the industry. There's a strong hands-on approach to the subject, with modules including plenty of prototyping and model-making. This will see you involved in miniatures and sculpture, 3D sketch model-making, 3D CAD and rapid prototyping, among other areas.

In your third year, you'll carry out a 30-week placement, which we'll help you find, in a relevant industry – whether TV, theatre, film, model-making or advertising.

You'll leave ready to work in a commercial environment, having business awareness with skills in budgeting, project planning and scheduling processes.

Course modules

Year 1 – Introduction to prop and model-making / Introduction to light and sound / Digital design and modelling / Post production / The creative industries

Year 2 – Design and manufacture by project SFXD / Design contexts and communications / Special effects design / Virtual engineering and CAD / Shared filmed performance / The art of illusion and spectacle

Year 3 – Industrial placement

Year 4 – Research methods / Dissertation / SFXD portfolio projects / Innovation and enterprise / SFXD Major project

Find your course at www.lsbu.ac.uk/course-finder

Related course: BA (Hons) Visual Effects (VFX), see page 58

Course code

Special Effects Design BSc (Hons): full-time: W451

Applications

Full-time: Apply direct to UCAS www.ucas.com
Institution code: L75

www.lsbu.ac.uk | 0800 923 88 88 | course.enquiry@lsbu.ac.uk

Telecommunications Engineering

BEng (Hons)

Telecommunications is an important part of modern society and changes the way in which we live and work.

There is an increasing demand for bandwidth-intensive applications, such as online HD video streaming, online conferencing, online real-time gaming, cloud computing, social media and mobile video streaming. This requires the development and deployment of high-speed, high-capacity communication systems and networks. With further increase of display resolution, next-generation technologies will be used to support broadband communications at very high speeds. Consequently, the rapid evolution of telecommunication technologies presents new business and job opportunities.

To meet the needs of this highly dynamic industry, our course provides you with the practical skills and theory required to analyse, design, implement and operate various telecommunication systems and networks. This course also includes a large proportion of laboratory-based practical teaching.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Engineering principles / Introduction to digital electronics / Engineering computing / Introduction to electronic engineering

Year 2 – Advanced engineering mathematics and modelling / Circuits, signals and systems / Analogue and digital electronics / Engineering software C++ / Team design project / Fundamentals of communication

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Analogue and digital communication systems / Individual project / DSP for communications / Optical and microwave communications

Find your course at www.lsbu.ac.uk/course-finder

Course code

Telecommunications Engineering BEng (Hons): full-time: H640 / part-time: 4635

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Typical entry requirements

- A Level BBB or:
- BTEC National Diploma DDM or:
- Access to HE qualifications with 24 Distinctions and 21 Merits must include 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 122 UCAS points
- Level 3 qualifications must include Maths
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Prepares you for a range of roles in an expanding field. You could work for an equipment manufacturer, a network infrastructure provider or a service provider, as well as other sectors associated with information and communications technology.



Accredited by the Institution of Engineering and Technology, as a step to chartered engineer status

Telecommunications Engineering

MEng (Hons)

Typical entry requirements

- A Level AAB or:
- BTEC National Diploma DDD or:
- Access to HE qualifications with 24 Distinctions and 21 Merits must include 3 Distinctions in Maths and 3 Merits in Physics or:
- Equivalent Level 3 qualifications worth 144 UCAS points
- Level 3 qualifications must include Maths
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Course overview

- 4 years full-time
- 5 years sandwich
- 6 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

Telecoms engineers design and install equipment used for transmitting wired phone, cellular, cable and broadband data. They typically work for telecoms service providers and communications software developers, but there are plenty of opportunities with equipment and infrastructure manufacturers and public sector bodies too.

In this integrated degree, you'll combine undergraduate and postgraduate levels of study over four years. It is the most direct route to achieving chartered engineer (CEng) status, opening up a number of career progression opportunities.

Telecommunications is an important part of modern society. To meet the increasing demand for bandwidth-intensive applications, high-speed, high-capacity communication networks are required to be developed and deployed. A rapid evolution of telecommunication technologies presents new business and job opportunities.

Our course provides you with the practical skills and specialist knowledge required to analyse, design, implement and operate various telecommunication systems and networks. You will study a wide range of topics in electronic and telecommunications engineering. This course also includes a large proportion of laboratory-based practical teaching.

Course modules

Year 1 – Engineering mathematics and modelling / Design and practice / Engineering principles / Introduction to digital electronics / Engineering computing / Introduction to electrical and electronic engineering

Year 2 – Advanced engineering mathematics and modelling / Circuits, signals and systems / Analogue and digital electronics / Engineering software C++ / Team design project / Fundamentals of communication

Year 3 – Optional placement year

Year 4 – Innovation and enterprise / Analogue and digital communication systems / Individual project / DSP for communications / Optical and microwave communications

Year 5 – Technical research and professional skills / Microwave communication and broadband access technologies / Wireless communications and satellite systems / Smart receivers and transmission techniques / Group project

Find your course at www.lsbu.ac.uk/course-finder

Course subject to validation

Course code

Telecommunications Engineering MEng (Hons): full-time: H641 / part-time: 4405

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75



Web Development (IT)

BSc (Hons) / Top-up to BSc

Web Development is located at the centre of the digital technologies that continue to transform business and social activities at every level. This course covers the development of web applications and their inherent interconnections with mobile computing. It explores both technical innovation on the web and practical applications in business and marketing.

You can study this course as a full BSc (Hons) or join the one-year top-up if you have a relevant HND.

The full BSc (Hons) offers you the chance to spend a year in industry, honing your transferable skills and proving your academic learning in the development of real-world systems.

Course modules

Year 1 – Business and professional issues / Mathematical analysis for informatics / Media, computers and networks / Socio-technical analysis of requirements / Software development 1 / Software development 2

Year 2 – Database systems / Research and professional practice / Managing technological innovation / Developing web applications / User-centred design / System design techniques

Year 3 – Optional placement year

Year 4 – Honours informatics project / Digital content management / Social and collaborative computing / Web services, security and management / IS project management

The course modules for the Top-up to BSc are as Year 4 plus: Research and professional practice / Developing web applications

Find your course at www.lsbu.ac.uk/course-finder

Related course: BA (Hons) Web Production and Social Media, see page 57

Course code

Web Development (IT) BSc: full-time: GN51 / part-time: 4156
Top-up to BSc: full-time: GN52 / part-time: 4006

Applications

Full-time: Apply direct to UCAS www.ucas.com
Part-time: Apply direct to LSBU www.lsbu.ac.uk
Institution code: L75

Typical entry requirements

BSc (Hons)

- A Level BCC or:
- BTEC National Diploma DMM or:
- Access to HE qualifications with 9 Distinctions and 36 Merits or:
- Equivalent Level 3 qualifications worth 106 UCAS points
- Applicants must hold 5 GCSEs A-C including Maths and English, or equivalent (reformed GCSEs grade 4 or above).

Top-up to BSc

- HND in a relevant subject.

Course overview

BSc (Hons)

- 3 years full-time
- 4 years sandwich
- 4 years part-time
- 6 years part-time
- September start
- Southwark campus

Top-up to BSc

- 1 year full-time
- 2 years part-time
- September start
- Southwark campus

For fee and scholarship information see www.lsbu.ac.uk/ug-fees

Career opportunities

The course will prepare you for a career in digital media management, working with a range of resources including social media, blogs and content management systems.