Undergraduate study

Electrical and Electronic Engineering

Key highlights

Ideal location
Learn about tech that will shape the future in a UK ‘top digitech city’ (TechNation 2018).

Career progression
Get support from our Industrial Liaison Office for the chance to engage with industry during your study, from insightful lectures to mentoring and internship schemes.

Exclusive opportunities
We offer scholarships including the UK Electronics Skills Foundation and E3 Academy Scholarship plus special placement and employment opportunities.

Become an expert
Our courses are delivered by passionate, internationally renowned experts and many of our degrees are IET accredited.

bristol.ac.uk/ug-study
Why study electrical and electronic engineering at Bristol?

Electrical and electronic engineering are integral to cryptography and digital communications, vital for green energy and key to robotics and AI. Bristol’s state-of-the-art department needs innovative and ambitious students like you to help create and shape the sustainable technologies of the future. Study with our internationally renowned staff to give your career the edge in entrepreneurial, tech-fuelled Bristol.

Electrical and electronic engineers work in fields as diverse as mechanical and aerospace engineering, power generation, transport, healthcare, quantum information, computing, and more. Links with local industry make Bristol an excellent place to study, with renewable energy enterprises, aerospace companies and microelectronics industries on your doorstep.

What you will study
Electrical engineering is concerned with the ‘power’ aspect of electricity, including topics such as renewable energy and high-performance electric drives for green vehicles. Electronic engineering uses electricity to convey signals, for instance in medical equipment, music systems and computers. Communications is a branch of electronic engineering that covers the transmission of data, sound and images.

The normal route to becoming a chartered engineer is through our four-year MEng degrees, but we also offer three-year BEng degrees. The MEng options provide more breadth and depth and allow you to undertake a major group project in addition to an individual research project.

Year one provides a strong grounding in mathematics, computing, analogue and digital electronics, communications, electromagnetics, power electronics and control. You’ll also take laboratory sessions and will be encouraged to start designing hardware and software solutions in collaboration with your lab partners. Students typically have an average of 20 to 25 timetabled hours per week, with half spent in lectures and the remainder on lab work.

In later years, you will choose from a range of optional units, meaning you can focus on anything from electrical power systems to electronic communications. For those on MEng courses, year three will involve a group design project, while the final year will be spent on an individual project.

If you would like to study abroad, you can consider the ‘with Study Abroad’ or ‘with Study Abroad in a Modern Language’ degrees in which you will spend your third year at a partner university abroad. Current destinations include France, Germany, Spain, the US and Australia.

You could also choose to study ‘with Innovation’ or pursue a joint honours degree with Computer Science or Mechanical Engineering.

Find out more
Entry requirements, course structure and units
bristol.ac.uk/ug2021-eleceng

‘One of the best educations around in a perfect city to live in - what is there not to like? I think engineers are the future; they make all the practical things that people use.’

Chris (MEng Electrical and Electronic Engineering)

Bristol is home to one of Europe’s largest clusters of microelectronics industries and the UK’s biggest aerospace companies, along with a thriving creative media industry.

More than £20 million has recently been invested to equip the faculty with a state-of-the-art electrical laboratory; large, flexible teaching, design and workshop spaces; and improved social and study spaces.

bristol.ac.uk/ug2021-eleceng
Courses

BEng / MEng Electrical and Electronic Engineering
MEng Electrical and Electronic Engineering with Innovation
MEng Electrical and Electronic Engineering with Study Abroad
MEng Electrical and Electronic Engineering with Study Abroad in a Modern Language
MEng Electrical and Electronic Engineering with a Year in Industry
BEng / MEng Computer Science and Electronics
MEng Computer Science and Electronics with Study Abroad
BEng / MEng Mechanical and Electrical Engineering
MEng Mechanical and Electrical Engineering with a Year in Industry

This leaflet contains information for students planning to start university in autumn 2021. We have made every effort to ensure all details are correct at the time of going to press (May 2020). However, since this information is subject to change, you are advised to check the University’s website, bristol.ac.uk/ug-study for the latest updates. Any sample units listed are indicative and offerings may change due to developments in the relevant academic field. Unit availability varies depending on staffing, student choice and timetabling constraints.