Computer Science

Undergraduate study
Courses

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<th>Single Honours</th>
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<td>BSc Computer Science</td>
<td>BEng Computer Science and Electronics</td>
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<tr>
<td>three years G400</td>
<td>three years GH45</td>
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<tr>
<td>MEng Computer Science</td>
<td>BSc Mathematics and Computer Science</td>
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<tr>
<td>four years G403</td>
<td>three years GG14</td>
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<tr>
<td>MEng Computer Science with Innovation</td>
<td>MEng Computer Science and Electronics</td>
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<td>four years G404</td>
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<tr>
<td>MEng Computer Science with Study Abroad*</td>
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<tr>
<td>four years</td>
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<tr>
<td>MEng Computer Science with Study in Continental Europe</td>
<td>MEng Mathematics and Computer Science</td>
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<td>four years G401</td>
<td>four years GG1K</td>
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<tr>
<td>MEng Computer Science with a Year in Industry†</td>
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<tr>
<td>five years</td>
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* Entry by transfer from G401 or G403 at the end of year one.
† Entry by transfer subject to eligibility criteria.

Why study computer science at Bristol?

Computer science is a dynamic and continually expanding subject. It underpins the digital technologies that impact our society and the way we live our lives. Bristol is a leading university for the study of computer science, and our courses are designed to give you skills and knowledge that combine the fundamentals of the subject with an exploration of its diverse applications.

You might be attracted to computer science for its creativity and be interested in designing and making things, from programmes to products. Perhaps you enjoy the intellectual challenge of solving problems and finding ways to understand complex phenomena, both natural and artificial. You may also be inspired by the direct relevance of computing to the real world, as well as its importance in many areas of society.

We provide a balance between theory and practice, enabling the in-depth study of techniques at the same time as using them in real applications. Alongside expert researchers, you will study cutting-edge topics such as high-performance computing, robotics, cryptography and artificial intelligence. You will also develop technical skills in software development, system design and animation, and transferable skills such as teamwork, communication and enterprise. This balance provides an ideal platform for our graduates’ future careers and is highly regarded by employers.

The Engineering Growth Project has recently invested £14 million to equip the Faculty of Engineering for the next generation of research, practice and innovation. This major expansion of our facilities includes state-of-the-art equipment and large, flexible teaching, design, study and workshop spaces, which enable interactive teaching and learning. Our new atrium acts as a social learning and meeting place, with a new café and bookable project and study rooms.

“The University prepares you for real-life problems that await you after you graduate. The courses have an equal amount of practice and theory. Lecturers are always ready to advise you in your choice of future career and share their experience with you.”

Ahinora (MEng Computer Science)
Our computer science courses provide a broad study of computing, covering all the key aspects of software and hardware and a wide range of application areas. The courses are designed to give you a thorough understanding of computers and computer systems and how to use them.

In year one you will study the theoretical principles of what computers can do and how to design algorithms to run on them. Software engineering units cover the fundamentals of programming. You will then implement these techniques in supervised practical classes and individual assignments, solving problems using a variety of programming languages. This will quickly build up your analytic and programming abilities, enabling you to adapt easily to new programming languages and paradigms – a skill that is highly valued by leading hi-tech companies.

Throughout the rest of the course you will gain experience working on real problems, with opportunities to specialise in areas of computing that are of particular interest to you. Whatever career you choose, the skills of design, planning, problem solving, meeting deadlines and teamwork that you will develop throughout your degree will be highly beneficial in your work.

We offer three- and four-year courses. The focus of the third and fourth year of our four-year MEng degrees is different to the final year of a three-year BSc, so you should read the course descriptions carefully. If you are undecided, the first two years of the courses are the same, making it easy to transfer between them.

Our joint honours courses with mathematics combine the fundamentals of computing and mathematics with specialisation in an area of computer applications. They are likely to be of interest to those wanting to study computing while continuing their studies in mathematics.

We also offer joint honours courses with the Department of Electrical and Electronic Engineering.

MEng Computer Science with Innovation combines in-depth subject specialism with interdisciplinary breadth, creative teamwork and entrepreneurial skills. You will gain a solid discipline strength in computer science and, using this subject knowledge in an innovative way, translate your ideas into plans for digital and creative enterprises.

Those on the Study in Continental Europe and Study Abroad courses will spend their third year at a partner university overseas.

Our aim is to provide you with a dynamic and flexible learning environment based on interesting, challenging material that will be relevant to your future career. We have a very open learning culture in which students and staff work closely together at all levels. In your first year you are assigned a personal tutor who will advise and help you throughout your course. We also run a mentoring system in which second-year students support incoming first years.

Every year, third-year MEng Computer Science students work together in teams to create state-of-the-art computer games, which are showcased at our annual Games Day.

‘On my course there are a few special moments where something really clicks and suddenly I feel like I’m completely in my element.’

Catt (BSc Mathematics and Computer Science)
A degree in computer science from Bristol will open up a wide range of career opportunities. Our students acquire a distinctive set of skills, combining in-depth knowledge of computer systems, programming and applications with a solid grounding in logical reasoning, design, problem solving and communication. For this reason, Bristol graduates are highly sought after and find rewarding and exciting careers.

The concentration of high-technology and creative industries in the Bristol region provides us with insight from industry insiders and opportunities for student projects, scholarships, prizes and vacation work, and many students find their first job in the area after graduating. Our links with industry form an integral part of the learning environment of the department. Graduates have found employment in companies including Amazon, Google, Microsoft, IBM, Hewlett Packard, Facebook, Nvidia, GCHQ, Bloomberg and Electronic Arts.

**Industrial Liaison Office**

The Industrial Liaison Office (ILO) manages the Faculty of Engineering’s links with a diverse set of world-class engineering and technology companies and works to ensure that our students engage with industry from the very start of their studies.

As an engineering student at Bristol, you will benefit from an outstanding range of activities designed to enhance your employability. These include our Inside Track lecture series, where business insiders offer first-hand insight into the engineering industry. Our industrial mentoring and internship schemes provide opportunities to gain valuable experience and make important connections, and our regular newsletter highlights further opportunities and industry events. See our website for more information: [bristol.ac.uk/engineering/ilo](http://bristol.ac.uk/engineering/ilo).

**Advanced Extension Award (AEA) and Further Mathematics**

Are not required but would be helpful for your studies, particularly for joint honours mathematics and computer science courses. We do not require A-level Computing or ICT. For MEng Computer Science with Study in Continental Europe, you will need a language qualification at GCSE standard or above.

**Making your application**

Visit [bristol.ac.uk/ug20-compsci](http://bristol.ac.uk/ug20-compsci) for more information about our courses.

**Typical offer for BSc/MEng Computer Science**

- **A-levels** A’AA (contextual AAB) including A* in Mathematics (contextual A).
- **IB Diploma** 38 points overall (contextual 34) with 18 at Higher Level (contextual 17), including 7 at Higher Level (contextual 6) in Mathematics.

Our contextual offer is a grade reduction of up to two grades below the standard entry requirements, made to applicants from under-represented groups. Find out more at [bristol.ac.uk/contextual-offers](http://bristol.ac.uk/contextual-offers).

**GCSEs** No specific subjects required.

**Selection process** UCAS.

For other accepted qualifications, and for our English language requirements, visit [bristol.ac.uk/ug20-compsci](http://bristol.ac.uk/ug20-compsci).

**Application advice for computer science courses**

It is important that you demonstrate a genuine interest in your chosen computer science course, so please visit our website and read through the detailed information on the courses and units that we offer. When selecting applicants, we look for ability and potential rather than specific knowledge about computers.

**Graduate employers**

- Apple
- Google
- Microsoft
- Amazon
- Arm

**Career destinations**

- Graduate Developer
- Software Developer
- Software Engineer
- Analyst
- Technology Analyst

**Find out more at** [bristol.ac.uk/careers/be-inspired](http://bristol.ac.uk/careers/be-inspired).

**Further information**

Find out more about the Department of Computer Science: [bristol.ac.uk/computerscience](http://bristol.ac.uk/computerscience).

For details of MEng courses in computer science and electronics please visit our mini-website: [bristol.ac.uk/engineering/interdisciplinary/cse](http://bristol.ac.uk/engineering/interdisciplinary/cse).

This information is correct at the time of printing (May 2019), but we recommend you check the University website for the latest information: [bristol.ac.uk/ug20-compsci](http://bristol.ac.uk/ug20-compsci).