BSc COMPUTER SCIENCE
At the forefront of today’s digital world
Computer Science is the study of principles, applications, and technologies of computing and computers. It involves the study of data, data structures and the algorithms to process them. Computer Science provides skills and knowledge which are essential in a wide range of computing and computer-related professions. It has a huge impact on modern society as it is the cornerstone of all of the digital technologies that we use in our daily lives.

**Computer Science at Reading**

Computer scientists study the techniques that underpin such areas as complex computing systems, big data analytics, computer graphics, computer security, web technology, mobile computing and artificial intelligence.

The Computer Science degree from Reading will develop your technical skills of programming, software design, computer systems and operations. In addition, you will acquire a wide range of transferrable skills sought after by many employers. The only limit is your imagination!

Our degree aims to develop your knowledge of the theory and practice of modern computer science. Students choose Computer Science at Reading as they are able to explore a wide range of cutting edge technologies and the course will enable you to apply problem-solving techniques using different programming languages. Design, planning, team work and problem solving skills are essential for your future career and sought after by employers in a wide variety of industries.

Reading’s Computer Science department is part of the School of Mathematical and Physical Sciences, comprising a large group of experts in diverse computing-related fields ranging from numerical weather forecasting to pharmaceutical modelling and high-performance computing. In addition, the high concentration of technology industries in south-east England has allowed us to develop strong links and partnerships with many blue-chip and IT companies such as Microsoft, Cisco Systems, Oracle and Intel and the Institute for Environmental Analytics.

**Placement**

If you would like to complete a one-year work placement in industry, you should consider studying the BSc Computer Science with Industrial Year (G401). Our dedicated placement team will help you to secure year-long paid employment during your degree. We have built up relationships with major companies over many years, many of which have their UK or European headquarters local to Reading.

We provide strong employability support for our students, including advice on CV writing and interview technique, and engage employers and alumni in supporting our students.

**Join the next generation of computer scientists driving the digital transformation of our society and culture, at the forefront of scientific discovery and at the heart of economic growth**

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**OUR COURSES**

- BSc Computer Science (G400)
  3 years full time
- BSc Computer Science with industrial year (G401)
  4 years full time

**ENTRY REQUIREMENTS**

Please see our website: [www.reading.ac.uk/computer-science](http://www.reading.ac.uk/computer-science)
• You’ll be taught by lecturers with expertise across a broad range of areas, with extensive experience in both academic and industrial applications, showing you how to develop and apply your skills.

• There is a strong career management theme running throughout the degree, with a series of skills development opportunities for students to engage with.

• Major international IT companies such as Microsoft and Cisco Systems are actively involved in our teaching programmes, both through student placements and our industrial advisory board. Our degree programmes are also accredited by the British Computer Society.

• The Department of Computer Science has its own dedicated computing laboratories, with workstations running both Windows and Linux operating systems, with links to both Mathematics and Statistics and Meteorology departmental computing systems and applications within the School of Mathematical and Physical Sciences.

• A wide range of software packages are used to support the computing curriculum, including tools for software/apps development, systems modelling, Computer Assisted Design and 3D printing, mathematical manipulation and more. There is free access to commercial software and servers, and many facilities are available to students in the evenings and at weekends.

WHY READING?

‘The staff at Reading have always been a huge part of where I am now, without them, their experience, kindness and dedication for their jobs, I wouldn’t be in the position I am today.’

STUDENT QUOTE
Our Computer Science degree isn’t just about teaching you computing—it is designed to prepare you for a rewarding and challenging career in the areas and technologies of your choice, whether that be commercially-focused or research-based:

• We run regular workshops and mock interviews jointly with companies such as IBM and Ernst & Young, who put you through their actual assessment centres to help refine your interview skills and give you experience of recruitment methods.

• The skills we give you will equip you for a wide range of careers within the computer industry. Typical application areas include programming, information security, website design and development, systems architecture, network design and planning, systems development and design, database design and administration, systems testing, systems integration, project management, software engineering, and IT consulting.

• With much of the UK’s IT industry literally on our doorstep, we have the best possible selection of IT companies to work with. The University of Reading is located in the heart of the UK’s IT industry, with companies such as Microsoft, Oracle, Cisco Systems, Hewlett Packard (HP) and Intel having their UK headquarters nearby. Many of these companies provide active input into our teaching, ensuring the skills we pass on are relevant to the needs of the IT industry, and making Reading graduates highly sought-after.

• We work particularly closely with our neighbours, Microsoft. We regularly host events and workshops with them, and they provide tours of their campus for our students. This close relationship with Microsoft has resulted in past graduates securing a job with the company immediately upon graduating, and current students undertaking a year’s industrial placement with them.

• We also offer opportunities to get involved with research. Successful candidates receive a vacation bursary to complete a research project, usually over the summer vacation, under the supervision of an academic member of staff, to gain first-hand experience of research. Such placements make a significant contribution to your transferable skills, employability and understanding of the research environment.

Most students who have followed the Computer Science degree programme go into careers in the software industry, ranging from small start-up companies to multinationals.

A number of our graduates have started their own businesses: others have joined research groups in the university and industry, the public service, and the teaching professions.

Over 90% of our students are employed within 6 months of graduating, with an average salary of £24,000.

‘The facilities were great, there’s always a computer to use. The staff are also very helpful.’

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EMPLOYABILITY

CAREER OPPORTUNITIES

STUDENT QUOTE

STUDENT QUOTE

STUDENT QUOTE
COMPUTER SCIENCE PROGRAMME OVERVIEW

Topics covered:
• Compilers
• Computer Applications
• Computer Architecture
• Computing Fundamentals
• Databases
• General Skills
• Essential Algorithms

• Human Computer Interaction
• Java
• Mathematics and Statistics
• Operating Systems
• Programming
• Software Engineering
• Systems Design

Topics include:
• Advanced Computing
• Computer Networking
• Concurrent Systems
• Data Mining
• Evolutionary Computation
• Image Analysis

• Individual Project
• Information Security
• Numerical Analysis
• Social, Legal and Ethical Aspects of Science and Engineering
• Statistical Computing

Years One and Two

Year Three

STUDENT QUOTE

For me the best things about Reading were the business ties with some of the largest software companies in the world just a few miles down the road, and the amazing friends and contacts I’ve made both in and outside of the university as a result of my course.'

For the latest information about our programmes visit our website
www.reading.ac.uk/ready-to-study/study/subject-area/computer-science-ug/bsc-computer-science.aspx

PLACEMENT OPPORTUNITIES

During your degree, you can gain work experience with leading companies in the Reading area as part of a Year in Industry. We have a dedicated Placements team to help you find the right position.

Placement companies include:
• Goldman Sachs
• GlaxoSmithKline
• Sony
• Ernst & Young
• BBC
• Pepsico
• BT
• KPMG
• IBM
• HSBC
• Deloitte
• O2
• Intel
• Microsoft
• M&S
• Oracle
• John Lewis
• Accenture
• 3M
The staff are friendly and helpful, expert answers are always available for any question. Very good and passionate staff. Always at hand and helpful when needed.

Excellent course - really interactive

'The course had a great mix of business and technical aspects, which was the reason I chose this particular course and university.'

STUDYING AT READING

Our magnificent setting is one of the University's greatest attractions. Our main Whiteknights site is set in 130 hectares of beautiful parkland. This is the heart of University life and provides a special sense of community. With its green open spaces, lakes, rare trees and wildlife it is an exceptional environment in which to study, live and relax.

Visit us

We are home to a diverse and thriving community, which provides a unique and rewarding environment in which to live and study. To appreciate the University of Reading’s distinctive atmosphere and world-class facilities you need to come and look around. You can take advantage of one of the University Open Days or pay us an informal visit.

We invite all prospective students holding offers to visit our department. The day offers a chance to meet lecturers and current students, talk about our programmes and take a close look at our campus and departmental facilities.

We hold Open Days every June and October for prospective undergraduate students, their family and friends. For forthcoming dates and details of events visit www.reading.ac.uk/opendays.
When it came to interviews, my time at Reading stood me in very good stead. Employers were impressed not only with the very varied work in my portfolio but also with my ability to talk through ideas and think on my feet.

Fleur Richards  
BA Typography & Graphic Communication Designer, BBC Sport Online