

Lancaster
University



Computing and Communications
Undergraduate Degrees 2026



Computing: the key to shaping our future.

Imagine possessing the computing skills to bring your creative ideas into a reality, and to literally have the power to transform lives.

Computing and Communications is at the heart of a digital revolution that is touching all aspects of science, healthcare, business, entertainment and society, and Lancaster's set of computing programmes reflects that incredible breadth. Across this landscape our degree programmes cover areas of immense innovation and importance - Computer Science, Software Engineering, Cyber Security, and Data Science. Within these programmes you will see a carefully curated core set of skills, alongside a rich pool of module choices in some of today's most exciting topics, from deep learning to computer vision and advanced cyber security.

Our degree programmes will push your ability to solve complex problems, develop your data analysis skills and create safe, secure software and systems that provide new, genuinely valuable technologies to society. A computing degree is so much more than just computing as a technology, which is why we are passionate about helping you discover a fascinating and wide-ranging set of skills to unlock your potential.

Academic programmes are just one part of the university experience and we hope that you can visit us or join one of our digital events to find out why we believe Lancaster is a great place to study!



Head of School

**Distinguished Professor
Nigel Davies**

We offer a range of flexible degree courses, complemented by a diverse selection of modules that empower you to shape your studies to suit your personal and professional interests. Our degrees blend theoretical and practical approaches to address pressing challenges in our increasingly digital and interconnected world.

Degree title		Degree (Hons)	UCAS code	Course duration (years)	Typical A level offer
Computer Science		BSc	G400	3	AAB
Computer Science (with Industrial Experience)		MSci	G404	4	AAA
Computer Science (Study Abroad)*		BSc	G403	4	AAA
Cyber Security		BSc	I900	3	AAB
Cyber Security (with Industrial Experience)		MSci	I902	4	AAA
Cyber Security (Study Abroad)*		BSc	I901	4	AAA
Data Science **		BSc	G900	3	AAB
Data Science (with Industrial Experience) **		MSci	G903	4	AAA
Data Science (Study Abroad)**		BSc	G902	4	AAA
Data Science (Placement Year)**		BSc	G901	4	AAA
Software Engineering		BSc	G602	3	AAB
Software Engineering (with Industrial Experience)		MSci	G601	4	AAA
Software Engineering (Study Abroad)*		BSc	G603	4	AAA

 Study abroad available  Industry placement available

Students applying with an A level in Computing, Computer Science or Mathematics may be considered for a lower offer.

*Our Study Abroad courses require an A level in either Computer Science or Mathematics.

**Including Mathematics or Further Mathematics at grade A.

The table above shows our typical offer for A level students. See our website for alternative qualifications such as International Baccalaureate or BTEC and for more information on our combined honour degrees.





Inspiring innovation *through education*

At no point in history has computing and communications been more central to innovation.

An innovative discipline

Our world is constantly changing and, with it, our reliance on computers is increasing. Innovative computer scientists are creating the systems of the future. Software engineers build systems that help to keep us connected in an increasingly interconnected world. Data scientists help us to understand the digital data that supports every part of our lives. Cyber security experts work to protect the systems that we depend on more and more. Without the work of computer scientists, it's safe to say that our world would look very different.

Preparing you for your future

As a computing graduate you will have skills applicable to a wide range of industries. Technology is constantly evolving and your degree will help to prepare you for future roles that don't even exist yet. It's a really exciting time to be a computer scientist!

Strong regional links

Our building, InfoLab21, is home to the School of Computing and Communications, and is the region's leading centre for ICT research and commercial innovation, collaborating with companies such as the BBC, Google, Microsoft and Samsung.

Your learning, your course

You'll be learning on a balanced programme which combines deeper theory with plenty of hands on experience. This blend equips you for a highly dynamic workplace and ensures immediate value to you and employers on graduation, as well as a lasting foundation for the future.

We want you to understand computing, from where it's been, to where it's going, why it matters and how it can help with all sorts of real-world problems. Our degrees take you from programming, analysis and computational thinking, through system architecture, networking, graphics, extended reality, human interface and interaction design, artificial intelligence and cyber-security, sustainable computing, and beyond, to creating robust, secure, useable software to meet real people's needs.



Madison, *third year*

BSc Computer Science

Having experienced university life elsewhere before coming to Lancaster, I thought I knew what to expect. Like most people I thought it was mainly just studying hard and completing my BSc in Computer Science. But Lancaster University and the School of Computing and Communications changed that expectation. What makes it truly special is the breadth of opportunities to get involved with. From taking part in events like the Lovelace Colloquium, to becoming a college President, and most meaningfully to myself, serving as a Student Representative for the School, not only having the chance to shape my own experience, but to help make it even better for future students. I've always felt heard, valued, and treated as a peer, and I'm proud to be part of a community that listens and lifts each other up.

Academically, the support has been phenomenal from extremely approachable lecturers to the new 24 hours labs that made even the most challenging projects feel achievable. I always felt encouraged to ask questions, explore new ideas, and push beyond what I thought I was capable of which is the best way to learn. Beyond the department, Lancaster has helped me grow in confidence, leadership, and independence, with never a dull day here within the campus. Balancing study and social life felt natural, thanks to the supportive environment and vibrant student community that we have here. All these experiences have made my time at Lancaster incredibly rewarding and an experience I will never forget. I came here to earn a degree, but I am leaving with so much more.



**for Computer Science
and Information Systems**

Guardian University Guide

2025

“

As a student with ADHD and Autism, I have always felt supported by the School.

”

Luke

BSc Software Engineering graduate,
PhD student

Lancaster University



The University has so many opportunities to not only develop your academic skills, such as the computer science society or ethical hacking society, but also the opportunities to develop other interests. Whether it is sports, activism or even baking, Lancaster has a group and a community just waiting to welcome you. And with such a great campus with plenty of facilities and open space, the opportunities are purely limited by if someone has had the idea yet.

As a student with ADHD and Autism, I have always felt supported by the School who do everything they can to help students with disabilities get the most out of their time at university and by encouraging them to take part in extra opportunities. One of the ways they do this is by always looking for feedback on how to make things better by talking to students and involving them in the process to ensure everyone gets heard. Things like the academic rep scheme, or the Schools Equality, Diversity and Inclusivity committee are just some of the ways the staff work to ensure students are given opportunities to make their voices heard by the School.



Support *every step of the way*

The School of Computing and Communications is dedicated to fostering a supportive and enriching environment for its students, ensuring their well-being and academic success.

FAST Hub

The Feedback & Assessment Support Team Hub (FAST Hub) is located beside our computing labs and is available every weekday afternoon for you to drop in without appointment and ask questions about your studies. Staffed by academics that teach on our programmes, they can help when you are stuck on exercises or coursework, explain how to use feedback from one exercise to get better marks in the next, and get you back on track if you are falling behind in a module. If things are going smoothly they can also point to more advanced exercises and even try to offer support on computing topics you're interested in outside our modules.

Academic Advisors

You'll meet your Academic Advisor in your first week of university, and they will be here to help start and guide you on your career trajectory and answer queries you may have, helping you to make the most of your academic journey.

Your student voice

The student voice is very important to us in the School, and every student can volunteer to be a student rep! Every week, senior academic staff meet with our student representatives and hear their feedback. We also record a video response that is made available to all our students, explaining the actions we are taking to respond to your feedback.

Well-being

The University is committed to supporting students' mental health and well-being through a variety of dedicated services. The University's Wellbeing Services provide confidential counseling, mindfulness workshops, and peer-led initiatives to promote emotional resilience. Students can access resources to help them manage stress, balance workloads, and maintain their overall well-being. By fostering a supportive environment, Lancaster University ensures that students can thrive academically and personally.

Somewhere to be involved

From societies to networks, there are many ways to get involved in the School of Computing and Communications.

Computer Science Society

The Computer Science society (LUCompSoc) works closely with the School of Computing and Communications to provide exciting opportunities for students to engage with alongside their degree. LUCompSoc facilitates talks from industry, guest lectures, career development opportunities and more! Join to get involved in a range of projects, from the small and simple to the long-term and ambitious. All students can benefit from peer-led support sessions for academic studies, ranging from workshops to lectures.

LUHack

Founded in 2014, the Lancaster University Ethical Hacking Group (LUHack) is a group of individuals who meet weekly to learn and practise ethical hacking in a safe (and legal!) environment. Anyone can learn the basics of hacking in the first semester before moving onto advanced topics and regularly attending conferences and competing in Capture the Flag competitions.

MedTech Society

Lancaster's MedTech Society brings together students from across the university to explore robotic surgery, AI-driven diagnostics and more. Organising workshops and conferences, it's the place for people who care beyond the code.



Femtech

Our free, student-led society that aims to upskill minority groups of students in STEM subjects. Femtech aims to empower their members by providing career resources, workshops and courses (including a beginners Python course) in a nurturing and supportive environment, surrounded by likeminded individuals.

Women++@InfoLab

Women++@InfoLab complements the student-led work of Femtech and seeks to support minority groups of both students and staff in the School of Computing and Communications. There are opportunities to meet up, as well as networking lunches, talks from industry representatives and academics, and workshops. Previously, we have hosted the annual British Computing Society Lovelace Colloquium, and many of our undergraduates had the opportunity to present posters.



Devanshi, *second year*
MSci Software Engineering
 (with Industrial Experience)

As an international student, moving away from my family to study at Lancaster University was both a challenging and rewarding decision. The School of Computing and Communications (SCC) has not only provided me with an exceptional academic experience but also helped me find a sense of belonging, making Lancaster my home away from home.

Through SCC, I've had access to incredible hands-on learning opportunities that have enriched my studies. From working on real-world computing challenges with industry partners to participating in innovation-driven projects, I've gained valuable practical experience that contextualises my academic learning. These experiences have prepared me for the fast-evolving landscape of technology and empowered me to take on challenges confidently.

Beyond academics, Lancaster's collegiate system and vibrant campus community have been instrumental in helping me settle into university life. I've joined societies like LUCompSoc, which connects students with exciting events, coding challenges, and workshops. Being part of this supportive environment has helped me meet like-minded peers, build friendships, and grow both personally and professionally.

Lancaster's unique location has further enhanced my experience. Surrounded by the beauty of the Lake District and Yorkshire Dales while being close to dynamic cities like Manchester, I've enjoyed exploring the region's offerings—from tranquil natural escapes to tech-focused opportunities.

Choosing Lancaster was the best decision I made. It has become a place where I not only pursue my passion for computing but also embrace a welcoming, supportive community that feels like home.

Our degree *schemes*

Our degree courses offer a broad yet rigorous grounding in this innovative discipline.

Our degrees

We offer degrees in Computer Science, Cyber Security, Software Engineering and Data Science. All of our degrees are built from a range of modules encompassing five main themes of computer science.

Software covering programming languages and how to make software.

Data and Algorithms covering the theoretical foundations of computer science, data engineering, and different types of artificial intelligence.

Systems covering how software and hardware interact within computers and across networks.

Interactions and Implications covering professionalism, ethics, computing's impact on the world, and how people interact with computer systems.

Cyber Security covering the theory and techniques to identify and protect physical, software, and AI systems.

Can't decide which degree scheme to apply for?

No problem! Our Computer Science, Software Engineering, Cyber Security, and Data Science* degree schemes all have a common first year to provide the broad foundation that any computing professional should know. This means you can switch to a different scheme during first year!

* Switching to Data Science requires having taken a Mathematics & Statistics optional module during first year.



Can't decide whether to apply for the BSc or MSci?

That's fine! You can use just one of your UCAS choices - those students who do not achieve their conditional offer for the MSci will automatically be offered a place on the BSc, providing the entry criteria have been met (see page 2). You can also change when you get here, from one to the other, anytime through to Easter of your third year, providing you are achieving the minimum required grades as you go along.



Morgan, fourth year

MSci Computer Science (with Industrial Experience)

Artificial Intelligence

“

I've gained even more confidence and a clearer sense of direction.

”

Machine Learning

Top
150

in the world for
**Computer Science and
Information Systems**

QS University World Rankings

by Subject 2024



My placement was based in Manchester, UK, working for Fuzzy Labs—a company specialising in open-source MLOps and AI productionisation.

During my 10-week placement, I was immersed in the world of cutting-edge AI solutions, contributing to projects that focused on leveraging open-source tools to streamline machine learning operations. My role involved a variety of tasks, including developing and testing MLOps pipelines, collaborating with the engineering team to optimize AI workflows, and conducting research on innovative approaches to AI deployment. I also had the chance to work both from the Digital Security Hub in Manchester and remotely, which gave me flexibility and a dynamic work environment.

This experience not only enhanced my technical skills but also provided me with valuable industry insights and a clearer sense of direction for my future career. Overall, I thoroughly enjoyed my time at Fuzzy Labs and would highly recommend undertaking a placement to anyone looking to gain hands-on experience in the tech industry!

Computer Science

BSc Hons

Taking a practical approach to learning, you are encouraged to build and analyse systems and software, as well as work with end user feedback to refine and adapt solutions.

In the first year, you will receive a comprehensive understanding of the fundamental principles of the discipline, combined with their modern day application. From Year 2, more optional modules become available, allowing you to tailor your studies to your own interests and future career.

Study Abroad

We offer the option of a four-year BSc in Computer Science where you will spend your third year abroad at one of our partner universities.

MSci Hons

If you choose to study an MSci in Computer Science, your first three years will be spent alongside your companions on the BSc, but as they graduate, you'll be preparing for your fourth year, where you'll be studying Master's-level modules, and undertaking an industry placement, giving you an advantage in the global job market. We will set you up with a partner organisation or research group, which fits your skill set and builds on your existing knowledge.

Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future.

Information within this publication with respect to courses and modules is correct at the time of publication, and the University will make every reasonable effort to offer courses and modules as advertised. In some cases, changes may be necessary and may result in new modules or some modules and combinations being unavailable, for example as a result of student feedback, timetabling, staff changes and new research.

Year 1

Core Modules

Software Development A

Designed with tasks that flex to accommodate students with varying levels of previous experience, this module provides the contemporary knowledge, skills and techniques needed to develop high-quality computer software via learning, and building on, programming.

Software Development B

This module investigates the processes, tools, techniques, and notations required to develop commercial grade software. Through practical activities, you will continue to refine the programming skills studied in Software Development A to create more complex, professional systems.

Digital Systems

This module provides an introduction to the engineering principles upon which all contemporary computer systems are based. Students will study the elements that work together to form the architecture of digital computers.

Fundamentals of Computer Science

It's vital that there is a strong theoretical foundation to computer science. This module examines the hard questions central to computer science to prepare you for the in-depth critical thinking and discussion required at university level.

Optional Modules

Choose two modules from a range of different departments across the University. Options within the School of Computing and Communications include DevOps and Contemporary Topics in Computing. The choice available is subject to entry requirements and timetabling restrictions.



Year 2

Core Modules

HCI: Designing for People

This module introduces you to the foundations of human-computer interaction (HCI) in understanding human behaviour, technologies for interaction, and human-centred design.

Networks and Systems

Building on the foundations set in Year 1, this module investigates the deep concepts that underpin computer networking and operating systems.

Secure Systems and Data Engineering

This module introduces the fundamental concepts of systems security. The module also provides a practical and theoretical background to the design, implementation and use of database management systems.

Computer Science Group Project

Working in a team, you will execute a project through all stages, practically combining and applying concepts and skills gained in other modules studied so far. Example project topics are desktop application development, game programming, or computer graphics.

Optional Modules

You will choose two modules from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Internet Applications
- + Artificial Intelligence and Algorithms
- + Concurrent, Parallel, and Operating Systems
- + Extended Reality

Please see our website for further examples of options available to you.

Year 3

Core Module

Third Year Project

You will work on an individual project, typically making a large software system, with the support of an academic supervisor. Supervisors offer a large range of project ideas covering the breadth of our School's expertise and you'll rank projects by interest before being allocated to a supervisor.

Optional Modules

You will choose four modules from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Advanced Programming
- + Machine Learning
- + Embedded Systems
- + Digital Health
- + Engineering and Verifying Secure Distributed Systems

Please see our website for further examples of options available to you.

Cyber Security

BSc Hons

Skilled cyber security experts are in high demand, and as a NCSC recognised Academic Centre of Excellence in Cyber Security Research and Cyber Security Education, we have extensive expertise in the field.

If you're looking to exploit the latest cutting-edge cyber security research to build modern, resilient and secure computing platforms then this is the degree designed for you. As with our other degrees, in your first year you will receive a comprehensive grounding in computer science fundamentals covering both theory and practice. In your second and third years you will begin to specialise in areas that inspire you.

Study Abroad

We offer the option of a four-year BSc in Cyber Security where you will spend your third year abroad at one of our partner universities.

MSci Hons

If you choose to study an MSci in Cyber Security, your first three years will be spent alongside your companions on the BSc, but as they graduate, you'll be preparing for your fourth year, where you'll be studying Master's-level modules, and undertaking an industry placement, giving you an advantage in the global job market. We will set you up with a partner organisation or research group, which fits your skill set and builds on your existing knowledge.

Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future.

Information within this publication with respect to courses and modules is correct at the time of publication, and the University will make every reasonable effort to offer courses and modules as advertised. In some cases, changes may be necessary and may result in new modules or some modules and combinations being unavailable, for example as a result of student feedback, timetabling, staff changes and new research.

Year 1

Core Modules

Software Development A

Designed with tasks that flex to accommodate students with varying levels of previous experience, this module provides the contemporary knowledge, skills and techniques needed to develop high-quality computer software via learning, and building on, programming.

Software Development B

This module investigates the processes, tools, techniques, and notations required to develop commercial grade software. Through practical activities, you will continue to refine the programming skills studied in Software Development A to create more complex, professional systems.

Digital Systems

This module provides an introduction to the engineering principles upon which all contemporary computer systems are based. Students will study the elements that work together to form the architecture of digital computers.

Fundamentals of Computer Science

It's vital that there is a strong theoretical foundation to computer science. This module examines the hard questions central to computer science to prepare you for the in-depth critical thinking and discussion required at university level.

Optional Modules

Choose two modules from a range of different departments across the University. Options within the School of Computing and Communications include DevOps and Contemporary Topics in Computing. The choice available is subject to entry requirements and timetabling restrictions.

Year 2

Core Modules

Secure Systems and Data Engineering

This module introduces the fundamental concepts of systems security. The module also provides a practical and theoretical background to the design, implementation and use of database management systems.

Cyber Security Group Project

Working in a team, you will execute a project through all stages, practically combining and applying concepts and skills gained in other modules studied so far. Projects will either build a system used as a cyber security tool or follow secure software design methodologies to build an application.

HCI: Designing for People

This module introduces you to the foundations of human-computer interaction (HCI) in understanding human behaviour, technologies for interaction, and human-centred design.

Networks and Systems

Building on the foundations set in Year 1, this module investigates the deep concepts that underpin computer networking and operating systems.

Optional Modules

You will choose two modules from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Internet Applications
- + Artificial Intelligence and Algorithms
- + Concurrent, Parallel, and Operating Systems
- + Extended Reality

Please see our website for further examples of options available to you.

Year 3

Core Modules

Engineering and Verifying Secure Distributed Systems

In this module, you will investigate the techniques and design approaches used to construct large-scale distributed systems, and the formal verification techniques to ensure the correctness of such systems.

Secure Cyber Physical Systems

This module explores the security, safety and privacy threats to cyber physical systems (CPS) and the techniques to mitigate these threats.

Secure Artificial Intelligence

In this module, you will learn how AI can be leveraged to augment and improve established cyber security techniques, as well as learn about the emerging attacks against AI itself.

Third Year Project (Cyber Security)

You will work on a substantial individual project on a cyber security topic. Cyber Security academic supervisors offer a large range of project ideas covering the breadth of our expertise and you'll rank projects by interest before being allocated to a supervisor.

Optional Modules

You will choose one module from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Advanced Programming
- + Machine Learning
- + Embedded Systems
- + Digital Health
- + Advanced Networking

Please see our website for further examples of options available to you.

Software Engineering

BSc Hons

Taking a practical approach to learning, you are encouraged to build and analyse systems and software, as well as work with end user feedback to refine and adapt solutions.

Your first year will provide you with the fundamentals of software engineering, allowing you to gain the essential knowledge needed for analysis and design. Your second and third years offer advanced topics to enable you to explore your passion. You will also undertake a variety of software engineering design studio modules, ensuring you gain a broad and robust level of skills and experience in team-based software development.

Study Abroad

We offer the option of a four-year BSc in Software Engineering where you will spend your third year abroad at one of our partner universities.

MSci Hons

If you choose to study an MSci in Software Engineering, your first three years will be spent alongside your companions on the BSc, but as they graduate, you'll be preparing for your fourth year, where you'll be studying Master's-level modules, and undertaking an industry placement, giving you an advantage in the global job market. We will set you up with a partner organisation or research group, which fits your skill set and builds on your existing knowledge.

Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future.

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Year 1

Core Modules

Software Development A

Designed with tasks that flex to accommodate students with varying levels of previous experience, this module provides the contemporary knowledge, skills and techniques needed to develop high-quality computer software via learning, and building on, programming.

Software Development B

This module investigates the processes, tools, techniques, and notations required to develop commercial grade software. Through practical activities, you will continue to refine the programming skills studied in Software Development A to create more complex, professional systems.

Digital Systems

This module provides an introduction to the engineering principles upon which all contemporary computer systems are based. Students will study the elements that work together to form the architecture of digital computers.

Fundamentals of Computer Science

It's vital that there is a strong theoretical foundation to computer science. This module examines the hard questions central to computer science to prepare you for the in-depth critical thinking and discussion required at university level.

Optional Modules

Choose two modules from a range of different departments across the University. Options within the School of Computing and Communications include DevOps and Contemporary Topics in Computing. The choice available is subject to entry requirements and timetabling restrictions.



Year 2

Core Modules

HCI: Designing for People

This module introduces you to the foundations of human-computer interaction (HCI) in understanding human behaviour, technologies for interaction, and human-centred design.

Networks and Systems

Building on the foundations set in year 1, this module investigates the deep concepts that underpin computer networking and operating systems.

Secure Systems and Data Engineering

This module introduces the fundamental concepts of systems security. The module also provides a practical and theoretical background to the design, implementation and use of database management systems.

Software Engineering Studio

Applying the knowledge you have gained in your first year, you will work in collaborative groups to produce a complex, innovative and concrete group project, allowing you to develop skills in project planning, management and execution, requirements analysis, systems design and testing strategies.

Optional Modules

You will choose two modules from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Internet Applications
- + Artificial Intelligence and Algorithms
- + Concurrent, Parallel, and Operating Systems
- + Extended Reality

Please see our website for further examples of options available to you.

Year 3

Core Modules

Third Year Design Studio I

This module extends your experience in collaborative development by introducing more complex and realistic software systems. Through a studio approach, you will focus on the integration and networking of software modules to create larger systems.

Third Year Design Studio II

Working on a project with industry involvement, and building on the skills developed in Design Studio I, you and your group will work on a large system that will be deployed with live users at the end of the module. You'll use an agile approach with a strong emphasis on software engineering practice.

Optional Modules

You will choose four modules from a range of options taught by experts in the School of Computing and Communications. Options currently include:

- + Advanced Programming
- + Machine Learning
- + Embedded Systems
- + Digital Health
- + Engineering and Verifying Secure Distributed Systems

Please see our website for further examples of options available to you.



Data Science

BSc Hons

Data science plays a vital role in all aspects of the modern world. Our BSc programme will ensure you have a strong foundation in this rapidly expanding, highly in-demand field.

In your first year, you will receive a comprehensive grounding in the theory and practical skills of computer science and gain an understanding of mathematical methods and concepts. In the second and third year, you will further deepen your knowledge, with an opportunity to engage with a range of research-informed optional modules.

Placement Year/Study Abroad

There are also BSc Placement Year and Study Abroad versions available, where you will spend a year in industry or abroad with one of our partner universities.

MSci Hons

If you choose to study an MSci in Data Science, your first three years will be spent alongside your companions on the BSc, but as they graduate, you'll be preparing for your fourth year, where you'll be studying Master's-level modules, and undertaking an industry placement, giving you an advantage in the global job market. We will set you up with a partner organisation or research group, which fits your skill set and builds on your existing knowledge.

Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future.

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Year 1

Core Modules

Software Development A

Designed with tasks that flex to accommodate students with varying levels of previous experience, this module provides the contemporary knowledge, skills and techniques needed to develop high-quality computer software via learning, and building on, programming.

Software Development B

This module investigates the processes, tools, techniques, and notations required to develop commercial grade software. Through practical activities, you will continue to refine the programming skills studied in Software Development A to create more complex, professional systems.

Digital Systems

This module provides an introduction to the engineering principles upon which all contemporary computer systems are based. Students will study the elements that work together to form the architecture of digital computers.

Fundamentals of Computer Science

It's vital that there is a strong theoretical foundation to computer science. This module examines the hard questions central to computer science to prepare you for the in-depth critical thinking and discussion required at university level.

You will also study the following core modules delivered by the School of Mathematical Sciences:

Matrices and Calculus

Probability and Statistics

Year 2

Core Modules

HCI: Designing for People

This module introduces you to the foundations of human-computer interaction (HCI) in understanding human behaviour, technologies for interaction, and human-centred design.

Secure Systems and Data Engineering

This module introduces the fundamental concepts of systems security. The module also provides a practical and theoretical background to the design, implementation and use of database management systems.

You will also study the following core modules delivered by the School of Mathematical Sciences:

Multivariate Probability and Statistics Project Skills

Optional Modules

You will choose two modules from a range of options taught by experts in the School of Computing and Communications and the School of Mathematical Sciences. Options currently include:

- + Internet Applications
- + Artificial Intelligence and Algorithms
- + Extended Reality
- + Applied Data Science

Please see our website for further examples of options available to you.

Year 3

Core Module

Third Year Project (Data Science)

You will work on a substantial individual project with the support of an academic supervisor. You will be offered projects from both the School of Computing and Communications, and the School of Mathematical Sciences, offering the opportunity to focus your degree and you'll rank projects by interest before being allocated to a supervisor.

Optional Modules

You will choose four modules from a range of options taught by experts in the School of Computing and Communications and the School of Mathematical Sciences. Options currently include:

- + Advanced Programming
- + Machine Learning
- + Digital Health
- + Engineering and Verifying Secure Distributed Systems
- + Statistical Inference
- + Changepoint and Time Series Analysis

Please see our website for further examples of options available to you.

“

My time at Lancaster gave me a strong foundation—not just in technical skills, but in working effectively

”

Alexandra Stanhope,
BSc Computer Science graduate

After graduating from Lancaster with a BSc in Computer Science, I began my career at Airbus Defence and Space as a Graduate Simulation Engineer. I later moved to Ocado Technology, where I now work as a Software Engineer specialising in iOS development for the Ecommerce team.

In my role, I collaborate with engineers from other disciplines and UX designers to bring new features to life in our customer app. I love being able to see the results of my work, whether it's a new feature or a small design tweak, and knowing I've contributed to something real. I'm also passionate about accessibility and making sure our products are inclusive for all users. Beyond coding, I stay actively involved in the Women in Tech community, something I've been proud of since my university days.

My time at Lancaster gave me a strong foundation—not just in technical skills, but in working effectively with others and tackling complex challenges with resilience. Those experiences have shaped how I approach my work today.



Software Engineer

Simulation Engineer

BSc Computer
Science



For those with multiple passions

We offer a combined honours degree that is ideal for those of you who like to have a few varied projects on the go at once.

BSc/MSci Hons

Mathematics with Computer Science

Studying in both the School of Mathematical Sciences and the School of Computing and Communications, you will learn from two of the country's leading research and teaching specialists in these fields. Learn about computing fundamentals like languages, logic and software engineering whilst building your pure mathematics knowledge with algebra and analysis.

MSci students will write an additional dissertation in fourth year, under the supervision of an academic from one of the two Schools. You'll be proficient to Master's-level in mathematics, computing, research methods and professional skills.

There are also BSc Placement Year and Study Abroad versions available.

Enhancing your curriculum

We continually review and enhance our course curricula to ensure we are delivering the best possible learning experience, and to make sure that the subject knowledge and transferable skills you develop will prepare you for your future.

Information within this publication with respect to courses and modules is correct at the time of publication, and the University will make every reasonable effort to offer courses and modules as advertised. In some cases, changes may be necessary and may result in new modules or some modules and combinations being unavailable, for example as a result of student feedback, timetabling, staff changes and new research.

Your future career

The computing discipline is fundamental to all aspects of modern life and the opportunities open to graduates with a computing related degree are almost endless.

Developing your aspirations

Whether you have a particular career path in mind or are not sure what you would like to do after you graduate, a computing related degree from Lancaster will equip you with all the technical and professional skills necessary to apply yourself to a broad range of careers. Whatever your aspirations, our Careers Service can work closely with you to explore your options and consider the best way to achieve your goals.

Graduate destinations

Our graduates have gone on to work with major technology companies such as IBM, Google and the BBC, while others have chosen to take their software design, development and management skills to SMEs, or have set up their own technology-centric businesses. Many of our graduates also elect to study for MSc or PhD qualifications.



Pathways to success

Our goal is to empower all our graduates with the skills, confidence and experience needed to achieve a successful career. You will be offered a wide range of support, helping you realise your career ambitions and providing you with the skills to reach your full potential. Our Careers Service is here to support you with a comprehensive support package to help you achieve your goals and our online portal gives you access to a wealth of resources designed to support your career journey.

Engaging with employers

We put you in direct contact with major graduate employers and global businesses and share our connections with the top global graduate recruiters across every sector to help you take your first vital steps into the world of work.

Developing *your potential*

We offer you a wealth of opportunities to enhance your employability and help you develop the skills to succeed in the workplace.

Placements

Our four-year MSci programmes feature a 10-week industry placement in your final year, which is fully arranged by us. Tell us your preferences and we'll match-make you with our network of industry partners. Past placements include Microsoft, Dolby Digital, GCHQ, and a range of other UK-based businesses.

Internships

Our dedicated Business Engagement Team collaborates with organisations across the technology sector, ranging from large multinational corporations to small local businesses. We can help connect you with internship opportunities that offer valuable practical experience and the chance to build a professional network. Internships can be a crucial step in developing both professionally and personally, providing a solid foundation for long-term career success.



Knowledge Transfer Team

Our Knowledge Transfer Team is here to help bring your business ideas to life and take the first steps towards starting your own businesses. Many of our graduates have successfully launched businesses which now offer internships to students like you! Our team is excited to support you on your journey and help connect you with a network of experienced entrepreneurs who can guide you along the way.

Guest speakers

Our degrees offer you the opportunity to hear from a wide range of invited guest speakers from industry. These experts provide valuable insights into how the technology industry works, and you'll have the chance to meet and build relationships with key professionals.





Computing and Communications
scc-ug-enquiries@lancaster.ac.uk | +44 (0)1524 510311
lancaster.ac.uk/scc

The information provided in this publication relates primarily to 2026 entry to the University and every effort has been taken to ensure the information is correct at the time of printing in June 2025. The University will use all reasonable effort to deliver the course as described but the University reserves the right to make changes after going to print. You are advised to consult our website at: lancaster.ac.uk/study for up-to-date information before you submit your application. Further legal information may be found at: lancaster.ac.uk/compliance/legalnotice.