

Computer Science BSc (Hons)

UCAS Code: I101 | Duration: 3 years | Full-time | Hope Park | 2026/2027

Placement year opportunities available



Course Overview

Computer Science is about fresh thinking, new opportunities, and innovative ideas that impact every aspect of society. This dynamic Computer Science degree reflects the subject's versatility by covering a wide range of topics, including networks, robotics, the Internet, mobile and embedded computing, and cutting-edge technologies such as Artificial Intelligence, Virtual Reality, and Augmented Reality.

Through this Computer Science course, you will gain practical skills highly valued by industry, such as programming in C, C++, Java, Lua, Python, JavaScript, and C#. You will also explore the social and ethical questions raised by computer science, alongside its versatility, demand, and earning potential in the modern workplace.

The Computer Science degree is intellectually challenging yet highly creative. You will be supported by research-active staff with diverse expertise, ensuring a rich curriculum that offers multiple approaches and areas of study. With close academic and practical support, you will develop the knowledge and skills needed to shape the future of technology.

If you are inventive, enthusiastic, and eager to make a difference, this Computer Science degree will prepare you for a rewarding career in one of the most influential and in-demand fields today.

Entry Requirements

This course follows the standard University entry requirements. Please see the website for further information.

Fees and Additional Costs

The tuition fees for 2026/2027 are £9,535 for full-time undergraduate courses.

As well as tuition fees, you need to consider additional costs such as books, hardware and software for your own personal computer/laptop, general computer consumables such as discs, USBs and printing, which will be approximately £500.

You will also need to consider the cost of your accommodation each year whilst you study at university.

Visit our accommodation webpages for further details about our Halls of Residence: www.hope.ac.uk/halls

Applicants will need access to a computer if course delivery is switched to online. The University has a laptop lending service if remote study is necessary.



**LIVERPOOL
HOPE
UNIVERSITY**

1844

CONTACT

T: +44 (0)151 291 3000

E: enquiry@hope.ac.uk

www.hope.ac.uk

Computer Science BSc (Hons)

Curriculum

Year One

This is a broad introduction to the subject and you develop the theoretical knowledge, problem solving and practical skills that underpin Computer Science:

Introduction to Programming

This module explores the foundational concepts of programming and data structures, focusing on Java and Python, and examines how skills in structured coding, object-oriented programming, and core algorithms support the design of efficient, maintainable solutions to computational problems.

Introduction to Artificial Intelligence

In this course, we will explore the field of Artificial Intelligence (AI), starting with foundational concepts and progressing through its diverse applications and implications.

Data Fundamentals

This module introduces the concept of data and its collection, processing, analysis, and interpretation, while exploring storage systems such as relational databases and the end-to-end lifecycle of data in real-world contexts.

Fundamentals of Computational Science

This module introduces the foundations of computer science by weaving together mathematics, C programming, cryptography and scientific computing.

Year Two

In your second year, you will go deeper into Computer Science, expanding into both its theoretical and practical dimensions.

Object-oriented Programming with C++

This topic provides a comprehensive understanding of classes, objects, inheritance, polymorphism, and other core OOP concepts.

Professional Skills

From communication to problem-solving, you'll be prepared to navigate the challenges of industry.

Introduction to Software Engineering

This topic covers best practices, design patterns, and methodologies that ensure the creation of robust, scalable, and maintainable software systems.

Web Development

Building on your software engineering foundation, this topic looks into client-to server-side coding.

Algorithm Design and Analysis

This course will introduce you to the design, analysis, and implementation of algorithms, ensuring you can develop efficient and effective solutions to complex problems.

Networks

Dive into the world of computer network infrastructure and protocols.

Human-computer Interactions

This topic focuses on design principles, user testing, and the psychology of user interactions, ensuring that software meets the needs and expectations of its users.

Computer Graphics with C++

Using C++, you'll explore the principles of computer graphics, from basic rendering to animations, ensuring your applications are not only functional but visually captivating.

Year Three

This year, your focus will be on your dissertation, centred around a topic of your interest. Alongside this, you'll explore several advanced subjects:

Spatial Computing

You will develop an understanding of the theory and practical skills to develop virtual or augmented worlds using software or other frameworks to create 3D digital assets.

Internet of Things (IoT)

You'll learn how everyday objects can communicate over the internet and will have access to modern tools to develop and test your ideas.

Web Innovations

With a focus on advanced aspects of Javascript. You'll work with client-side applications using current libraries and explore server-side technologies like Node.JS and React.

Machine Learning

You will learn the principles of intelligent systems and their application to computer science and the types of algorithms and programming languages used to solve real-world problems.

Mobile Development

Here, you'll focus on mobile application development using tools like Android Studio and the Java programming language.

Cybersecurity

You will study topics such as network security, cryptography, and threat detection.

COURSE STRUCTURE

Teaching on this degree is structured into lectures, seminars and tutorials. You also have the opportunity to have a one-to-one meeting with your tutor each week. You spend your third year on placement.

If you are studying Computer Science as a single honours degree, in your first year of study you will have approximately 12 teaching hours per week, which reduces to approximately 11 hours in your second and third years.

If you are studying Computer Science as a combined honours degree, in your first year of study there are approximately 6 teaching hours each week, which reduces to approximately 5 teaching hours in your second and fourth years.

On top of teaching hours, you are also expected to spend a number of hours studying independently each week, as well as working in groups to prepare for any group assessments you may have.

ASSESSMENT AND FEEDBACK

During your degree, there are a variety of assessment types including written exams, portfolios of tasks and activities, and practical coursework. In your final year, there is also a dissertation or extended research project to complete.

You will be given written feedback on your assessments, and you will have the opportunity to discuss this with your tutor in more detail.