Computer Science is concerned with understanding, designing, implementing and using computing systems, ranging in scale and complexity from the tiny components of a single processor to the globe-spanning internet.

The core concepts of computing have their roots in mathematics, logic, and engineering, such as what it means to compute, what can or cannot be computed, and how computers work.

It also concerns the practical techniques of programming computers to solve real and difficult problems, and there are many links to other subjects, from electronics, physics, and mathematics, to biology, psychology, linguistics, and sociology.

This intellectually challenging subject underpins the core technologies of the 21st century, and can be a route to many different career paths.

Year 1
You will be introduced to basic principles of programming, computation and cognitive science, with courses in informatics and a choice of courses from psychology, philosophy and language sciences.

You will learn how information can be represented and processed in computational systems, whether artificial (computers) or natural (humans).

The year also includes courses in mathematics necessary for all areas of cognitive science. Together these form the foundations of more in-depth study of computation and cognition in future years.

Year 2
You will build on Year 1, covering more advanced programming and data structures, together with related mathematics.

Courses offered will develop greater understanding of software development, decision making, learning from data, and the internals of computers or computer systems. Option courses are available from various schools across the University.

Year 3
Your studies will become more focused and you will have more choice in selecting specialised courses, according to your own interests, from a range of options specific to computer science as well as other courses in informatics.

Coursework assignments typically provide you with experience in practical work, independent problem solving, and group work.

Your exact curriculum depends on your selected courses; Course options offered in recent years include courses in software testing, robotics, computer security, machine learning, operating systems, computer networks, and around 10 others.

Year 4
You will choose from a large number of advanced course options in computer science to build a portfolio according to your interests.

Year 4 includes an individual honours project where you will learn to develop a viable project starting from a given topic. You will have a variety of choices in selecting a project and a supervisor to guide you.

Our facilities
You will be based within the School of Informatics, with lectures, tutorials and classes held in Appleton Tower, which provides purpose-built facilities and dedicated learning and teaching spaces, all located in the University’s Central Area.

You will have 24-hour access to computer laboratories and quality software support is available.

Career Opportunities
Our graduates have excellent career prospects in IT industry and beyond.

They comfortably secure roles such as software engineer, hardware engineer, app developer, web developer, and programmer but also increasingly: data analyst/scientist or business analyst in the financial sector.

Popular employers include: Google, Facebook, Amazon, IBM, SkyScanner, Intel, ARM, Samsung, NVIDIA, Keysight, RockStar North as well as RBS, JP Morgans, Citigroup.

Other industries and professions that rely heavily on computing systems, including media (e.g. BBC), communications (Ericsson, Huawei), energy (British Gas) and medicine (Canon Medical Systems) are all potential employers for the School of Informatics graduates.

Our school has a record number of startups and spinouts over the last ten years including those set up by our alumni, such as Fanduel, Robotical or PlayerData.