Why study A level Computer Science?

There is an ever-increasing demand for people who understand how computers work, and who can solve tomorrow's problems using computers. This course will equip you with the technical and practical skills to meet this demand, whilst developing your understanding of the impact computers have on our lives. The key features of this course encourage an emphasis on computational thinking and the mathematical skills used to express computational laws and processes, such as, for example, Boolean algebra/logic, and comparison of the complexity of algorithms. Learners also complete a complex programming project using a scenario of their choice. If you have a high mathematical aptitude, strong logical reasoning skills, and a keen desire to understand computing fundamentals, then you should consider this course.

What specification is being followed?

OCR.

What will I be covering in the course and how will I be assessed?

2 The specification overview

2a. Overview of A Level in Computer Science (H446)

Learners must take three components (01, 02 and 03 or 01, 02 and 04).

Content Overview	Assessment Overview	
• The characteristics of contemporary processors, input, output and storage devices • Software and software development • Exchanging data • Data types, data structures and algorithms • Legal, moral, cultural and ethical issues	Computer systems (01) 140 marks 2 hours and 30 minutes written paper	40% of total A level
• Elements of computational thinking • Problem solving and programming • Algorithms to solve problems and standard algorithms	Algorithms and programming (02*) 140 marks 2 hours and 30 minutes written paper	40% of total A level
The learner will choose a computing problem to work through according to the guidance in the specification. • Analysis of the problem • Design of the solution • Developing the solution • Evaluation	Programming project (03* or 04**) 70 marks Non-exam assessment	20% of total A level

What can I do with this subject?

The technology sector is rapidly growing as computers become increasingly enmeshed in a range of different industries. This means there are a wide selection of degrees relevant to computing, and employees with computing qualifications will be able to access a variety of different job roles.

Possible opportunities within computing include: software developer, systems analyst, network engineer and a wide range of other roles as the profession becomes more and more diverse each year.

Specific entry requirements for this course

Grade 6 in GCSE Computer Science (or grade 6 in Maths if not previously studied at GSCE.)