



COMPUTER SCIENCE

OCR A Level in Computer Science (H446)

COURSE OVERVIEW

The Computer Science specification will above all else be relevant to the modern and changing world of computing. The new specification will:

- Focus on programming, building on our GCSE Computing and emphasise the importance of computational thinking as a discipline.
- Have an expanded maths focus, much of which will be embedded within the course.
- Put computational thinking at its core, helping students to develop the skills to solve problems, design systems and understand human and machine intelligence.
- Allow student to apply the academic principles learned in the classroom to real world systems in an exciting and engaging manner.
- Give students a clear progression into higher education, as the course was designed after consultation with members of BCS, CAS and top universities.



HOW WILL I BE ASSESSED?

Content of Computer systems (Component 01)

- 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

Content of Algorithms and programming (Component 02)

- Elements of computational thinking
- Problem solving and programming
- Algorithms to solve problems and standard algorithms

Content of non exam assessment Programming project (Component 03 or 04)

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

Assessment Overview	
Computer systems (01) 140 marks 2 hours and 30 minutes written paper	40% of total A level
Algorithms and programming (02*) 140 marks 2 hours and 30 minutes written paper	40% of total A level
Programming project (03* or 04**) 70 marks Non-exam assessment	20% of total A level

ENTRY REQUIREMENTS

A GCSE in the subject is desirable. However, if you have good subject knowledge and a keen interest in computing, then you would be considered for the course.



WHY STUDY THIS SUBJECT?

Computer Science is a practical subject where learners can apply the academic principles learned in the classroom to real world systems. It is an intensely creative subject that combines invention and excitement, that can look at the natural world through a digital prism. OCR's Computer Science will value computational thinking, helping learners to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence.