

Course Level

A Level

Awarding Body

OCR

Entry Requirements

Grade 6 in Computer Science

Assessment

The A Level in Computer Science is a linear qualification with 100% external assessment. This qualification consists of two examined components (01 and 02), externally assessed by OCR and one internally assessed and moderated non exam assessment component (Programming project). Both examinations are of 2 hours and 30 minutes duration, each with a 40% weighting. The non-exam assessment component weighted at 20%.

COMPUTER SCIENCE

Computer Science is a practical subject where you can apply the academic principles learned in the classroom to real-world systems. It is an intensely creative subject that combines invention and excitement and can look at the natural world through a digital prism. The A Level in 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.

The aims of this qualification are to enable learners to develop:

- An understanding and ability to apply the fundamental principles and concepts of computer science, including: abstraction, decomposition, logic, algorithms and data representation.
- The ability to analyse problems in computational terms through practical experience of solving such problems, including writing programs to do so.
- The capacity to think creatively, innovatively, analytically, logically, and critically.
- Mathematical skills.

Special Requirements

You are required to have a minimum grade of 6 in Computer Science, this is due to the complexity of the course. It is essential that you are a keen programmer to access the content within the algorithms and programming part of the course.

Computer systems (01) 140 marks 2 hours and 30 minutes written paper 40% of overall grade Programming project 20% of overall grade

- 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

- You will choose a computing problem to work through according to the guidance set by the exam board.
- Analysis of the problem
- Design of the solution
- Developing the solution
- Evaluation

Algorithms and programming (02) 140 marks 2 hours and 30 minutes written paper 40 % of overall grade

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

Career and Progression Opportunities

This course will enable learners to progress to higher education or to progress directly to employment. This qualification is suitable for students intending to pursue any career in which an understanding of technology is needed. It will provide students with a range of transferable skills which will facilitate personal growth and foster cross curriculum links in areas such as maths, science and design and technology.