

COMPUTING

In today's world, where technology is constantly changing, individuals will increasingly need Computing skills that include the ability to design and implement Computing solutions. The impact of technology on society is enormous and as the percentage of businesses and households connected to communication networks such as the internet grows, so does the need for individuals who can master and manipulate these new technologies.

During this course you will develop:

- The capacity to think creatively, innovatively, analytically, logically and critically.
- An understanding of the organisation of computer systems.
- The ability to apply skills, knowledge and understanding of Computing, including programming.
- An understanding of the consequences of using computers, an awareness of emerging technologies and an appreciation of their potential impact on society.

ENTRY REQUIREMENTS

GCSE Computing is a good foundation for this course. However, you may study A-level Computing without having a GCSE qualification in the subject.

HIGHER EDUCATION AND CAREER OPPORTUNITIES

A-level Computing offers excellent progression to a variety of degrees including Computer Science, Software Engineering, Computer Games Production, Information Systems, Forensic Computing, Computer Technology, Networking and Electronics. Computing career opportunities are excellent and well paid.

COURSE CONTENT

Exam Board: OCR

01 Computer systems

This component will be a traditionally marked and structured question paper. It will cover the characteristics of contemporary systems architecture and other areas including the following: software and its development, types of programming languages, data types, representation and structures, exchanging data and web technologies, following algorithms, using boolean algebra, legal, moral and ethical issues.

02 Algorithms and Programming

This component will be a traditionally marked and structured question paper with two sections, both of which will include a mix of question types.

Section A

Traditional questions concerning computational thinking. Elements of computational thinking, programming and problem solving, pattern recognition, abstraction and decomposition, algorithm design and efficiency, standard algorithms.

Section B

There will be a scenario/task contained in the paper, which could be an algorithm or a text page-based task, which will involve problem solving.

03 Programming project

External postal moderation or repository. Students and/or centres select their own user-driven problem of an appropriate size and complexity to solve. This will enable them to demonstrate the skills and knowledge necessary to meet the assessment objectives. Students will need to analyse the problem, design a solution, implement the solution and give a thorough evaluation.

