

Advanced Level in Computing

"I have a keen interest in computers and wanted to learn more."

"I have learned to programme."

"I have learned how to work with a client."

"The thing I like best is working independently and developing personal skills such as working with others!"

"I am better prepared for the working world."

"The best bit was building a computer."

Specification:

OCR Advanced Subsidiary level in Computing H047

OCR Advanced level in Computing H447

Course Details

We offer the Advanced level in Computing which consists of 4 units of study over two years. Students may study to AS level for one year, and complete two units of study – Computer Fundamentals and Programming Techniques and Logical Methods. Assessment at AS Level is 100% external assessment, consisting of two 1 1/2 hour written papers. Two further units are studied in the second year at A2 level. Advanced Computing Theory is assessed via a two hour written examination, and a Computing Project (which is assessed through coursework) which is a substantial piece of work, requiring analysis and design over an extended period of time, which is organised, evaluated and presented in a report. Students choose a well-defined user-driven problem which enables them to demonstrate their skills in Analysis, Design, Software Development, Testing, Implementation, Documentation and Evaluation, and their interrelation, and to give a completed overall system that solves the problem. This coursework represents 20% of the total Advanced GCE mark.

Aims of the course

This AS course encourages students to develop their knowledge and understanding of computer systems, the principles of computing (including programming) and how these are applied to the solution of problems. At A2, students also gain an understanding of systematic methods – such as the use of algorithms and test strategies, the maintenance of computer systems, and the skills associated with documenting solution. Students further develop skills associated with applying this knowledge and understanding to producing computer-based solutions to real problems.

The aims of these specifications are to encourage candidates to develop:

- the capacity to think creatively, innovatively, analytically, logically and critically;
- an understanding of the organisation of computer systems, including software, hardware, data, communications and people;
- the ability to apply skills, knowledge and understanding of computing, including programming, in a range of contexts to solve problems;

- skills in project and time management;
- the capacity to see relationships between different aspects of the subject, and perceive their field of study in a broader perspective;
- an understanding of the consequences of using computers, including social, legal, ethical and other issues;
- an awareness of emerging technologies and an appreciation of their potential impact on society.

Entry requirements

As well as the standard entry requirements, one of these GCSEs should normally be in this subject. We assume students will have a basic understanding and knowledge of both the hardware and software of a standard, stand-alone computer system. It is important that students have their own computer at home with appropriate software, to allow them to complete and support their studies.

Costs

As part of the course we have a trip to Disneyland Paris, looking at key aspects of ICT use in a large private organisation. The trip is voluntary, and usually costs around £350.

Possible progression

Students who successfully complete this qualification will be well equipped to move on to degrees and other Level 4 qualifications in related subjects such as IT, computer Science, Information systems, Software engineering, Computer Networking, e-business and information management.