



AQA A LEVEL COMPUTER SCIENCE

Why choose A Level Computer Science?

Computing and computer technology are part of just about everything that touches our lives from the cars we drive, to the movies we watch, to the ways businesses and governments deal with us. Understanding different dimensions of computing is part of the necessary skill set for an educated person in the 21st century. Every industry uses computers so naturally computer scientists can work in any. Problems in science, engineering, health care, and so many other areas can be solved by computers. A Level Computer Science helps you think about how technology is created. It allows you to understand how people work together with computers to develop world changing programmes and applications. You'll develop the skills that universities and employers are looking for – and they'll prove valuable for the rest of your life.

What we study:

- ✓ Fundamentals of programming
- ✓ Fundamentals of data structures
- ✓ Fundamentals of algorithms
- ✓ Theory of computation
- ✓ Fundamentals of data Representation
- ✓ Fundamentals of computer systems
- ✓ Fundamentals of computer organisation and architecture
- ✓ Consequences of uses of computing
- ✓ Fundamentals of communication and networking
- ✓ Fundamentals of databases
- ✓ Big Data Fundamentals of functional programming
- ✓ Systematic approach to problem

Entry Requirements:

You need to gain a grade 7 in Mathematics and a grade 6 in Science. If students have studied GCSE Computer Science they must achieve a grade 6.

HOW IT'S ASSESSED

Paper 1

What's assessed: this paper tests a student's ability to program, as well as their theoretical knowledge of Computer Science from subject content 10-13 above and the skills required from section 22 above.

Assessed

- On-screen exam: 2 hours 30 minutes
- 40% of A-level

Questions

Students answer a series of short questions and write/adapt/extend programs in an Electronic Answer Document provided by us.

We will issue Preliminary Material, a Skeleton Program (available in each of the Programming Languages) and, where appropriate, test data, for use in the exam.

Paper 2

What's assessed: this paper tests a student's ability to answer questions from subject content 14-21 above.

Assessed

- Written exam: 2 hours 30 minutes
- 40% of A-level

Questions

Compulsory short-answer and extended-answer questions.

Non-exam assessment

What's assessed: the non-exam assessment assesses student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem. Students will be expected to follow a systematic approach to problem solving, as shown in section 22 above.

Assessed

- 75 marks
- 20% of A-level