

A LEVEL COMPUTER SCIENCE

Examining Board AQA

Link Tutors
Mr J Cooper

Paper 1: On-screen exam, 2 hour 30 minutes (40% of A Level)

What's assessed: this paper tests a student's ability to program, as well as their theoretical knowledge of computer science from subject content 1-4 and 13 below.

Paper 2: Written Paper, 2 hour 30 minutes (40% of A level) Short answer questions on 5-12 below

Non-Exam Assessment: (20% of A Level, 75 marks). 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.

A LEVEL Course Content:

1. Fundamentals of programming
2. Fundamentals of data structures
3. Fundamentals of algorithms
4. Theory of computation
5. Fundamentals of data representation
6. Fundamentals of computer systems
7. Fundamentals of computer organisation and architecture
8. Consequences of uses of computing
9. Fundamentals of communication and networking
10. Fundamentals of databases
11. Big Data
12. Fundamentals of functional programming
13. Systematic approach to problem solving
14. Non-exam assessment - the computing practical project

Lesson Style:

A mix of practical lessons using computers/programming tasks and also more theory based lessons where there will be teacher explanation, class discussion and a requirement for pupils to research and find information or solutions for themselves

Time Allocation: 8 hours per fortnight

Private Study Requirement: Pupils will be required to spend about an hour doing private study for each hour of class time. They will have some theoretical homework tasks and it will be essential that they practise programming tasks outside of lesson time.

Extra-Curricular Opportunities:- Visit to National Museum of Computing (Bletchley Park)

Good Combination with: Maths and Physics, but would complement any choice of A-Level, due to the problem solving nature of the course.