Computer Science A Level

Exam Board: AQA
Entry requirements: Grade 5 in GCSE Computer Science

Intent

Who is this course for?

It is ideal for students who:

- are looking to develop an advances understanding of computer science
- want to apply their coding ability to solve real-world problems
- are looking at a computing orientated degree
- are aiming to work in the computing industry

Subject Content

AS Subject Content
1. Fundamentals of programming
2. Fundamentals of data structures
3. Systematic approach to problem solving
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

A Level Subject Content
10. Fundamentals of programming
11. Fundamentals of data structures
12. Fundamentals of algorithms
13. Theory of computation
14. Fundamentals of data representation
15. Fundamentals of computer systems
16. Fundamentals of computer organisation and architecture
17. Consequences of uses of computing
18. Fundamentals of communication and networking
19. Fundamentals of databases
20. Big Data

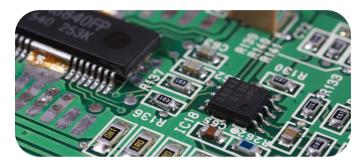## Implementation

Assessment Methods

A Level
Paper 1: This paper tests a student's ability to program, as well as their theoretical knowledge of computer science from subject content 10-13.

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

Paper 2: This paper tests a student's ability to answer questions from subject content 14-20.

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

Non-exam assessment: Assesses a student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem.

Impact

Skills gained and enrichment opportunities

Our A Level will develop a student's ability to:

- Think creatively, innovatively, analytically, logically and critically
- Apply skills in, and develop an understanding of computing (including programming) in a range of contexts to solve problems
- Delve into producing graphical user interfaces and object-orientated programming solutions

By completing a programming project, students will have the opportunity to create a substantial piece of software using modern design methods, which they can use to display their skills and talents.

Further information contact

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