

A Level Computer Science



Exam Board: AQA

The scientific study of computers can provide opportunities for careers working with a variety of computer systems. These range from engineering and scientific studies to programming and systems analysis. The course provides students with computational thinking skills of abstraction, decomposition, algorithmic thinking and generalisation.

Computer Science covers both the current technologies and perceived advances in both hardware and software, enabling students to meet the demands of a highly skilled IT focused business and industrial sector. The course also provides a firm basis for further studies in higher education in Computer Science and related subject areas. The course is a very technical one with detailed knowledge of a computer's internal workings, binary number systems and object orientated programming skills required.

Course summary:

- Develop computational thinking skills in order to solve problems
- Know how Computer Science can make the world a better place through learning how Computer Science helps society
- Develop an understanding of the range of applications of computers and the effects of their use
- Develop an understanding of the organisation of computer systems including software, data, hardware, communications and people
- Acquire the skills necessary to apply this understanding to developing computer-based solutions to problems.
- Develop an understanding of the main principles of systems analysis and design, methods of problem formulation and planning of solutions using computers, and systematic methods of implementation, testing and documentation.
- Develop their capacity for critical thinking, see relationships between different aspects of the subject and perceive their field of study in a broader perspective.
- Develop their project management skills and understanding of the need for team working.



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A Level Computer Science



Assessment:

PPaper 1 : On Screen Exam (40%)

Paper 2 : Written Exam (40%)

NEA—Coursework (20%)

Entry requirements:

9–6 GCSE Computer Science or equivalent.9–6 GCSE Mathematics & English Language.These grades are a requirement for entry onto the course due to the technical nature of the subject.

Who is the course for?

- students who are interested in the technical side of computing, such as network architecture, programming techniques and machine architecture
- students who like the challenge of problem solving and system design
- students interested in technical engineering subjects such as electronic engineering at university or college or those with an interest in the application of computing such as artificial intelligence or computer programming
- students who are interested in a career in a technical field such as engineering, the sciences and network management.

Career pathways

A job seeker can get into coding and programming. But the employment options for computer science majors extend beyond that. They can go into technical writing, software development and engineering, systems management, network administration, and even cybersecurity.

The subject is really interesting and the teacher is inspirational. The course itself teaches you so much and the content is relevant in today's society'.



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