

A LEVEL COMPUTER SCIENCE

Awarding Body: OCR (Course code H446)



Examinations

Component 1: Computer Systems Written exam (2 hours 30 minutes) (40%)

Theoretical knowledge of computer systems, networking, and security.

Component 2: Algorithms and Programming Written exam (2 hours 30 minutes) (40%)

Tests problem-solving abilities, algorithm development, and programming techniques.

Component 3: Programming Project Coursework/NEA project (20%)

Allows students to apply their programming skills to solve a real-world problem.

Course Information

The OCR A-Level Computer Science course offers an in-depth understanding of computing, focusing on programming, computational theory, real-world problem-solving. It is ideal for students who

- Are looking to develop an advanced understanding of computer science
- Want to apply their coding ability to solve real-world problems
- Are looking at a computing orientated degree and aiming to work in the computing industry
- Are looking for an intercalation with STEM subjects.

Course content

Computer Systems Study of hardware, software, networking, and cybersecurity. Algorithms and Programming Focus on algorithms, data structures, and programming techniques.	Programming Project A practical coding project where students solve a real-world problem using a programming language.
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Future Career Opportunities

Software Developer Data Analyst or Data Scientist Cybersecurity Analyst Researcher in Computing	Systems Architect Game Designer Web Developer Ethical Hacker / Penetration Tester	Network Engineer AI Specialist IT Consultant Entrepreneur- Tech
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Entry Requirements

Grade 7, 8 or 9 in Maths and English GCSE

A Level is a natural progression from GCSE Computer Science. It is not a pre-requisite to have taken Computer Science at the GCSE level however students are expected to complete the GCSE content as a bridging unit over the summer and sit an assessment at the start of Year 12 to determine their suitability for this course.

Further Information

Associated Degrees: Subject to change with new courses added each year. Intercalation with other STEM subjects popular too.

Computer Science: Oxford, Cambridge, Edinburgh, Imperial Software Engineering: Sheffield, Glasgow, Southampton Artificial Intelligence: Edinburgh, Sussex, Warwick Cybersecurity: Warwick, Royal Holloway, Kent Data Science – Leeds, Southampton, Queen Mary	Computer Networks: Birmingham, Northumbria, Plymouth Game Development: Abertay, Staffordshire, Falmouth Robotics: Bristol, Sheffield, Leeds Mathematics and Computer Science: Oxford, Warwick, Bath Computing and Business Management – Reading, Leicester, Loughborough
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