

Why Study A Level Computer Science?

Course Introduction

Discover how computers work, how software is created and how technology shapes our world. From developing programs to exploring the systems behind digital devices, A-level Computer Science combines logical thinking with creativity and problem-solving. This will help build technical skills for further study and a wide range of future careers.

Entry Requirements

5 GCSEs with a minimum Grade 6
Minimum Grade 7 in GCSE Maths &
Grade 6 in GCSE English

Course Content

A-level Computer Science explores how computers work, how software is developed and how technology shapes our world.

- Programming and algorithms: Write code, develop algorithms and solve computational problems.
- Computer systems: Explore data representation, processors, networks and computer architecture.
- Technology and society: Investigate big data, functional programming and the wider impact of computing.
- Programming project: Design, develop, test and evaluate a solution to a practical problem.

Skills Developed

Develop your ability to think logically, analyse problems and create effective solutions. You'll strengthen your programming, algorithmic thinking and mathematical reasoning, while learning to test systems, evaluate outcomes and approach unfamiliar challenges with confidence.

Career Opportunities

A-level Computer Science can open doors to university courses and careers in software development, cybersecurity, artificial intelligence, data science, games design and computer engineering. The analytical, technical and problem-solving skills you develop are also valued across business, science, finance and many other industries.

Course Assessment

Assessment combines written examinations on programming, algorithms and computer systems with an independent programming project.

- Paper 1: Programming, Algorithms and Data Structures: 2 hours 30 minutes (40%).
- Paper 2: Computer Systems and Theory: 2 hours 30 minutes (40%).
- Non-exam Assessment:
Computing Practical Project:
Independent programming project (20%).

