

# COMPUTER SCIENCE

|                          |                                       |
|--------------------------|---------------------------------------|
| Subject title            | A Level Computer Science              |
| Exam board               | OCR                                   |
| Specification number     | H446                                  |
| Time allowance each week | 4½ hours (Year 12), 5 hours (Year 13) |

Computer Science is a challenging and rewarding subject that develops learners' understanding of how computer systems work and how they are used to solve real-world problems.

The course combines the study of computer science theory with practical programming and software development.

The A Level specification builds on knowledge and skills developed at GCSE whilst introducing more complex concepts.

Students will study processors, memory, networking, cybersecurity, databases, algorithms, data structures and programming techniques.

## Paper 1 – Computer Systems

2 hours 30 minutes

140 marks

40% of A Level

What's assessed?

- Characteristics of contemporary processors, input, output and storage devices
- Software and software development
- Exchanging data
- Data structures and algorithms
- Legal, moral, ethical and cultural issues

How is it assessed?

Assessment through OCR examination or moderated coursework as appropriate.

## Paper 2 – Algorithms and Programming

2 hours 30 minutes

140 marks

40% of A Level

What's assessed?

- Computational thinking
- Problem solving and programming
- Algorithms
- Standard algorithms
- Computer mathematics
- Data structures

How is it assessed?

Assessment through OCR examination or moderated coursework as appropriate.

### Component 3 – Programming Project

Non-exam assessment

70 marks

20% of A Level

What's assessed?

- Analysis of a problem
- Design of a solution
- Development of a programmed solution
- Testing and evaluation
- Documentation

How is it assessed?

Assessment through OCR examination or moderated coursework as appropriate.