

Course Content

The aims of the OCR Computer Science course are to widen participation in vocational or work-related learning with a view to equipping learners with skills they will need in the workplace or in Further Education and training. The course focusses more on the technical side of computer use rather than the creative uses.

This course is relevant to the modern and changing world of computing. It is an intensely creative subject that combines invention and excitement, and can look at the natural world through a digital prism. OCR's A Level in Computer Science will value computational thinking, helping learners to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence. Learners will develop an ability to analyse, critically evaluate and make decisions. The project approach is a vital component of 'post-school' life and is of particular relevance to Further Education, Higher Education and the workplace.

The key features of this specification encourage:

- Emphasis on problem solving using computers
- Emphasis on computer programming and algorithms
- Emphasis on the mathematical skills used to express computational laws and processes, eg Boolean algebra/logic and comparison of the complexity of algorithms
- Less emphasis on ICT

Traditional questions concerning computational thinking:

- Elements of computational thinking
- Programming and problem solving
- Pattern recognition, abstraction and decomposition
- Algorithm design and efficiency
- Standard algorithms

Further Studies and Career Opportunities

This qualification is designed to enable learners to enter employment as a programmer, operative or trainee within a wide range of Information and Communication Technology environments. Such learners would normally enter employment through a work-related training programme. The course gives a broad educational basis for Further Education or for moving into employment within the Computing sector.

Subject Entry Requirements

Where a subject has not been studied at GCSE, students will be considered based on their overall academic profile.



Subject Enhancement

- Students have access to the Immersive Labs Virtual training platform
- Students are taught C# and the Unity game engine

How is this assessed?

Exam Board - OCR

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|------------|---|
| Exams | ✓ |
| Coursework | ✓ |
| Other | |