

Computer Science



at RHB Sixth Form

This *important* STEM subject gives students an *experience* of how computers and networks operate, from the very basics of logic gates to how search engines work. Computer Science is a *practical* subject where students can apply the *academic principles* learned in the classroom to *real-world systems*. It's an *intensely creative* subject that develops *logic* and *problem-solving skills* as well as *resilience* and *higher-level thinking*.

There is a huge gender bias in this subject and we are proud to be able to encourage our students to believe that *girls and women can excel* in in this subject.

"I chose Computer Science for A level because I enjoy programming and developing digital skills needed in the modern workplace. Through coding different types of programs I have gained new perspectives which can be applied to solving questions in my other subjects. The course is excellent preparation for STEM courses at university."

RHB ALUMNA

COURSE OUTLINE

The OCR A Level in Computer Science will encourage learners to be inspired, motivated and challenged by following a broad, coherent, practical, satisfying and worthwhile course of study. It will provide insight into, and experience of how computer science works, stimulating learners' curiosity and encouraging them to engage with computer science in their everyday lives and to make informed choices about further study or career choices.

Students will sit two written papers in the second year of the course:

Computing Principles (40%)

Algorithms and Problem Solving (40%)

Students create their own solutions to solve problems in a larger project which is the non-exam assessment, worth 20% of the marks.

IS THIS THE RIGHT COURSE FOR ME?

This course is suited to those who would enjoy finding out more about the technical world around them. An interest in developing solutions using code and being creative is very helpful. There is no requirement to have studied GCSE in this subject but a strong problem-solving ability and logical thinking go a long way.

WHERE COULD THIS COURSE TAKE ME?

Further Education

This A level opens doors to further study, especially if taken alongside Maths and Further Maths. Students have used their Computer Science knowledge as a differentiator in any UCAS or job application and to prove their technological, logic and problem-solving skills.

Almost every year we have several students opting to study Computer Science or Software Engineering after leaving school, but equally it has opened other degree opportunities such as robotics, AI and Crime and Security Science. Students have also gone onto undertake fully sponsored degrees with PWC.

Careers

There are several degree apprenticeships available in software engineering throughout the country which is a fantastic opportunity for students to earn and learn with companies such as BBC, BAE, Rolls Royce, Google and KPMG.

ENRICHMENT

Students in the past have opted to do a specialist CyberEPQ and the GDST Space Diploma Program in the sixth form – both of which brings additional opportunities in terms of career engagement. We enter a variety of coding competitions and pursue other problem-solving opportunities, work experience and also teaching in the Prep School.

HEAD OF SUBJECT

Daniel Harvey

EXAM BOARD

OCR (H446)



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