

TITLE	COMPUTER SCIENCE (A LEVEL)
BOARD	AQA
INTRODUCTION	This course will provide students with the opportunity to develop their logical thinking and apply these skills to solving problems through the use of computer programming.
COURSE STRUCTURE AND ASSESSMENT	<p>Paper 1: Programming and algorithm design. Students will develop their problem solving skills and logic based on computer science theory, before furthering their programming ability by implementing algorithms using Python* and using a systematic approach to problem solving. 40% of A level, 2hrs 30m on-screen exam.</p> <p>Paper 2: Fundamentals of computing. Students will learn about number systems, computer architecture, networking and the consequences surrounding the use of computing. Students will also learn about databases and the topic of Big Data before investigating functional programming and the idea of correctness. 40% of A level, 2hrs 30m written exam.</p> <p>Non Exam Assessment: Coursework. Students will undertake a substantial problem solving project using the skills and knowledge they have gained through the course. 20% of A level. Most students find this a challenging but very fulfilling part of the course.</p>
PROGRESSION	This A level provides an excellent foundation for anyone wishing to pursue further studies or a career involving the use of ICT. In addition to degrees in Computer Science, courses are also available in software engineering, web design and game design. Nationally there is a serious shortage of IT professionals, and as such a wide range of career opportunities follow on from any of these degrees.
ENTRY REQUIREMENTS	<p>To study A level Computer Science you should have gained a minimum of grade 6 in GCSE Computer Science and grade 6 in GCSE Mathematics. If you have not been examined in Computer Science at GCSE then you will need to demonstrate that you have a good level of Computer Science skills, including the ability to write programs in a text based language and a strong interest in the subject.</p> <p>If you have any questions about the Computer Science course please talk to Mr Crane. More details about the course can be found at http://goo.gl/yVHFQu</p> <p>*The course uses Python as the main programming language; prior knowledge or familiarity with this language, whilst advantageous, is not essential.</p>