Post 16 Subject Overview

Name of Subject - Computer Science

Which Examination Specification is Studied for this Course?
OCR A-Level Computer Science H446

Why should I study this course?
If you enjoy using computers, understanding how they work and how they can and will continue to change the world around us, this is the course for you. A Level Computer Science has a strong focus on programming and creating software. In year 13 your final year project will involve the creation of a 2D computer game using Unity, which is what real computer games are made with on the market today. There is plenty of academic content to cover as well, from understanding how processors really work to ethical issues caused by self driving cars.

Who is suitable to study this course?
Anybody who has enjoyed and been successful at GCSE Computer Science and GCSE Maths can have similar success in A-Level Computer Science. A Level Mathematics is a good course to take alongside Computer Science. The subject links to degrees and careers in Computer Science, Maths, Cyber Security, Artificial Intelligence and Information Systems.

What GCSE Qualifications Support the Study of this Course?
GCSE Maths & GCSE Computer Science

What are the Qualification Requirements for this Course?
GCSE Maths Grade 6

How is the Course Delivered?

The course is currently delivered by Mr. Houlton and Miss Harvey and has five hours of lesson time per week. This is typically split into four hours of theory and an hour on programming tasks each week. Students will likely need to put in an additional five hours of study time to keep up to date with assignments. All work is set and collected through Google Classroom.

Subject Overview		
Half Term	**Year 12**	**Year 13**
Autumn 1	Structure & Function of the Processor	Year 13 Programming Project
Autumn 2	Operating Systems & Software Development	Applications Generation & Project
Spring 1	Databases & Data Types	Computational Methods & Project
Spring 2	Boolean Algebra & Ethics	Revision
Summer 1	Programming Techniques	Revision
Summer 2	Algorithms	

How is the Course Assessed?
The course is 80% examined with a 20% coursework component.
The exams are at the end of the second year. There are 2 papers, 2 hours 30 minutes each. The coursework is a substantial piece of writing that also requires a large amount of coding to complete.

What is our Recommended Subject Reading list to Support your Study?

- OCR AS and A Level Computer Science by PM Heathcote and RSU Heathcote (ISBN: 978-1-910523-05-6).
- https://www.bbc.co.uk/news/technology
- https://unity.com/