WHO TEACHES COMPUTING?

Mrs Wright, Head of Computer Science.

WHAT CAN I EXPECT?

Computer Science will test your ability to stick at a problem and you will need to be organised to cope with the need to problem solve and meet deadlines. In addition to learning about how to program and the theory, we also teach the key skills which recruiters seek should you wish to enter the industry. Communication, motivation, business awareness, numeracy, technical knowledge, team working, problems solving, and leadership. You will develop a lot of transferable skills as you progress through this course; it is not just about acquiring an A-level.

WHERE WILL IT LEAD?

There are a large range of computing related careers (e.g. analysts, programmers, developers) and there is a growing demand generally for computer scientists or 'tech savvy' people. However, new and exciting opportunities are always being created in new fields and as such, can help prepare you for a career which might not yet, exist.

WHAT SHOULD I DO NOW?

Why not take a detailed look at the course specification on the OCR website.

http://www.ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015/

CHATHAM & CLARENDON GRAMMAR SCHOOL

A Level Computer Science

Common student questions and answers

ENTRY REQUIREMENTS –
YOU MUST HAVE STUDIED GCSE COMPUTER SCIENCE

You will need a minimum Grade 6 GCSE Computer Science to take Computer Science at A Level.

HAVE I GOT WHAT IT TAKES?

Students who enjoy solving complex problems, often of a mathematical nature, will do well on this course and you will also need a good organisational capability. The major project requires completion of long and detailed documentation and so project management skills will be very useful. The ability to meet deadlines is a key driver in the success of a candidate, as is the ability to solve problems independently.

WHAT DOES THE PROJECT INVOLVE?

The project will require you to develop your programming capabilities to solve a problem by creating a bespoke software package. The exam board will accept a range of languages for the final project. The project work consists of the development of a realistic problem which can be based around your interests.

WHAT IS THE DIFFERENCE BETWEEN ICT AND COMPUTING?

Information Technology	Computer Science
How computer systems are used	How computer systems work
People are central to the subject	Computation is central to the subject
Concerned with the development of IT systems, with particular emphasis on the effects on end users	Concerned with algorithmic thinking, and the ways in which a real-world problem can be decomposed in order to construct a working solution
Focuses on building a business / application solution mainly by using a combination of currently available software	Develops new systems by writing new software.
Emphasis on choosing and evaluating, appropriate software	Emphasis on principles and techniques for building new software (or hardware). Programming is a central technique.

HOW WILL I BE ASSESSED?

The course comprises of 2 written examinations and the major project.

Content Overview	Assessment Overview	
• The characteristics of contemporary processors, input, output and storage devices • Software and software development • Exchanging data • Data types, data structures and algorithms • Legal, moral, cultural and ethical issues	Computer systems (01) 140 marks 2 hours and 30 minutes written paper	**40%** of total A level
• Elements of computational thinking • Problem solving and programming • Algorithms to solve problems and standard algorithms	Algorithms and programming (02*) 140 marks 2 hours and 30 minutes written paper	**40%** of total A level
The learner will choose a computing problem to work through according to the guidance in the specification. • Analysis of the problem • Design of the solution • Developing the solution • Evaluation	Programming project (03* or 04**) 70 marks Non-exam assessment	**20%** of total A level