Gordon's Sixth Form

Computer Science

A Level and AS Level

What sort of work will I be doing?

At both AS and A Level we make the classroom learning as active as possible. Incorporating demonstrations and practical work for both programming and theory topics.

We believe students gain a greater understanding by experiencing the subject first hand. Students will work individually and in small groups completing tasks that develop skills alongside knowledge.

A major component of the course is coursework, with an individual project forming 20% of the full A Level. A substantial amount of work will be required in documenting the analysis, design and evaluation of the system as well as in development of the software.

What is the department like?

The CS department has a well-equipped room within the school. These are fitted with modern PCs, which are updated on a regular basis, and LED screens for demonstrations and presentations.

All computers are connected to the school Network, which also provides access to our resources and to the Internet. Students are allocated a user area to store their school work and are provided with a school email address. The rooms contain peripheral devices including a colour laser printer. Friendly and enthusiastic teachers, who are supported by a team of efficient technicians, teach on the courses.

Although this is a new A Level at Gordon's the course is well liked at GCSE with more than 30 students studying Computer Science at GCSE. The Department has enjoyed an excellent pass rate at GCSE in recent years and it is possible to achieve at the highest standard in what is acknowledged nationally to be a difficult subject.

We hope our students will derive enjoyment and satisfaction from the study of Computer Science.

What is the course about?

A Level Computer Science is a lot more than just "playing about with computers!" Although the practical aspects of the subject form an enjoyable part of the course, at its heart Computer Science is about a systematic approach to solving problems. This, together with a firm basis of facts about computer systems, provides a course that is recognised for its academic worth alongside the more traditional subjects.

The AS course provides an overview of computer systems and their applications. During the AS year you will develop some introductory programming skills. In the full A level, we look in more detail at systems development, processing and programming techniques.

What are the entry requirements?

Alongside the normal entry requirements for Gordon's Sixth Form, student's wishing to study Computer Science should have obtained at least a grade B in GCSE Computing, however if they have not studied Computing at GCSE then a level 6 in GCSE Mathematics in required. The Mathematics grade is particularly important because of the logical, mathematical and problem solving skills in Computer Science. Our most successful students are those who study Mathematics AS alongside Computer Science.

Although many of our students already have well-developed IT skills, there is no requirement for a formal qualification in Computer Science or ICT.

If you have never programmed before it is recommended you increase your knowledge in this area by using online tutorials or books.

How will I be assessed?

In the AS year, there will be a written examination and an on-screen test. Both will assess theoretical knowledge and the latter will assess your practical and programming skills.

For the full A Level, there will also be similar written and on-screen tests, but these will be longer and will cover all aspects of the two year course, including the topics covered in the AS year. There is also an individual project worth 20% of the assessment. You must enjoy doing coursework – it is a significant element on any advanced Computer Science course.

Previous results

Result	Candidates	Cumulative
B	3	20.0%
C	4	46.7%
D	2	60.0%

What skills will I develop?

Computer Science will provide the opportunity to develop your skills in information technology and communication, as well as improving your planning and study skills.

In particular, your project report will give you the opportunity to demonstrate your skills in written communication and information technology.

What extra work can I do?

Students are encouraged to look for articles on computing applications in books, newspapers, magazines and on the Internet. Practical use of a wide range of software can provide valuable preparation, however this does not include your favourite computer game!

If you like the challenge of advanced software development, then Computer Science is for you! The skills you learn will serve you well in both Higher Education and in your working life.

What are the progression routes for this qualification?

A Level is an excellent qualification both for those who wish to go straight into work and for those who want to continue into Higher Education.

If you wish to apply for a computing based degree, you are strongly recommended to combine the course with Mathematics and other scientific subjects.

Computer Science can be combined successfully with other disciplines at A Level.

IT and computing careers

- Software Engineer
- Video Games Developer
- Web Designer/Developer
- Graphical Designer
- Systems Engineer
- Software Developer
- Business Analyst
- Systems Administrator
- Project Manager

Information Communication and Technology and Computer Science degrees have an excellent reputation and are very popular amongst employers because graduates exhibit high level computer skills, are superb project managers, logical and develop good problem solving skills. Plus most industries are driven by computers and software.