

WHAT DOES IT GO WITH?

Anything. It can be your first all-encompassing passion or just an interesting fourth subject. It can support humanities subjects, business and communications courses, or it can be a support subject for Maths and the Sciences.

DO YOU HAVE TO BE BRILLIANT AT MATHS?

Not necessarily, but you will have to be reasonably good, because you will need to use your logical problem solving skills. You will also need to be able to write legibly - a word-processor will not always be available.

BY THE END OF THE COURSE STUDENTS WILL BE EXPECTED TO UNDERSTAND:

- the use and impact of computer science in a range of applications, and the nature of computer systems (hardware, software and communications).
- the need for various forms of data organisation and processing
- the systematic development of high quality solutions to problems, and the techniques required
- the social, economic, legal, ethical and other consequences of the use of computers.

CONTACT INFO

The College welcomes dialogue with parents. If you require more information please contact.

Head of Vocational, IT and Business Education (VIBE)

Mr Powell

Tel: 01276 457600

E-mail:

m.powell@collingwood.surrey.sch.uk

Collingwood College
Kingston Road
Camberley
Surrey
GU15 4AE

Phone: 01276 457600

Email: tc@collingwood.surrey.sch.uk

A LEVEL COMPUTER SCIENCE

EXAM BOARD: AQA



Collingwood
College
BELIEVE SUCCEED



COURSE STRUCTURE & ASSESSMENT

Students opting for Computer Science will study the full two year A Level.

The course focuses on three main areas:

- Problem Solving
- Programming
- Fundamentals of Computer Science

Unit 1 - 40%

- Fundamentals of programming
- Data structures
- Software development
- Theory of computation

On-screen Exam 2½ hours

Students answer a series of short questions and write/adapt/extend programs in an Electronic Answer Document.

A Skeleton Program is provided by AQA and students will have time to practise with this by adapting and extending it prior to sitting the exam.

Unit 2 - 40%

- Fundamentals of data representation
- Computer systems
- Computer organisation and architecture
- Uses of computing
- Communication and networking
- Fundamentals of databases
- Big data
- Functional programming

Written Exam 2½ hours

Compulsory short-answer and extended-answer questions.

Unit 3 - 20%

Practical Project - complete a report on a computer-based solution to a real problem that they have identified.

Coursework Internally Assessed

Assesses student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem.

ENTRY REQUIREMENTS

A minimum of 5 GCSEs at Grade 9-4 (or equivalent), including English and Maths. However, students with a minimum grade of 6 in Mathematics are more likely to succeed.

ICT and/or Computer Science at GCSE can help your preparation for this course but is not a prerequisite.

If you have taken an ICT qualification at GCSE you should have achieved at least a grade 5.

An understanding of VB.NET would be a distinct advantage but is not essential.

WHO IS THE COURSE SUITABLE FOR?

Those who see their future careers involving computers.

Students who are enthusiastic about computers and want to spend time making them do something useful.

Students who enjoy using a computer and want to know more about how a computer system works.

WHERE DOES IT LEAD?

A qualification in Computer Science can lead to a pure computer science course in higher education. Or it can lead to courses in IT as single-subject or combined courses with a huge variety of options.

Additionally an A level in Computer Science will be an asset to those going on to follow courses in Business, Economics, Journalism, Media, Science, Geography - the list is endless.