

Computer Science

Course description

Computer Science is the study of computers and the theory behind their working. From the hardware to the software, students will learn how a computer functions and how to design their own programs to utilise the power of computers. It is both analytical and creative, and the best computer scientists can combine the two.

Course content

Computer Hardware, Software and software development, Legal, moral, cultural and ethical issues, Databases, data types, data structures, exchanging data

Computational thinking, Algorithms and programming, Little Man Computing (low level CPU languages). Creating programs with graphical user interfaces
OOP (Object oriented programming)

Assessment

For the AS Level qualification you will sit two exams:

Computing Principles (1h 15m) – 50%

Algorithms and Problem Solving (1h 15m) – 50%

For the A Level qualification you will sit two exams in addition to a non-exam assessment:

Computer Systems (2h 30m) – 40%, Algorithms and Programming (2h 30m) – 40%

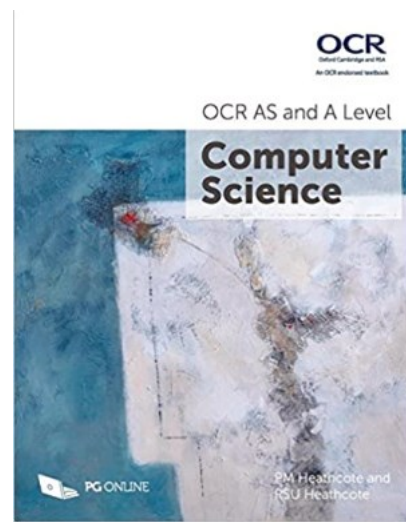
Programming Project – 20%

Computer Science

Recommended textbook / revision guide

Year 12 and 13

OCR AS and A Level Computer Science



Whilst it is not essential for students to have their own copy of the textbook it would be advantageous for students to have a copy to complement their notes and promote wider reading

Future pathways

The subject of Computer science leads to a wide variety of different professions. Whilst this is not an exhaustive list it does give you an idea of the wide variety of roles that can be accessed after studying Computer science

Computer Programmer

Software Developer

Game Developer

Website Developer

Mobile App Developer

Cyber-Security Analyst /Database Administrator or Analyst

Computer Hardware Engineer Computer System Architect