A-Level
Computer Science

Computers are widely used in all aspects of government, business, industry, education, leisure and the home. In this increasingly technological age, a study of computing and particularly how computers areusing in the solution of a variety of problems, is not only valuable to the students themselves but also essential to the future well-being of the country.

Computing links well with subjects across the curriculum. It demands both logical discipline and imaginative creativity in the selection and design of programs; it relies on an understanding of the rules of language at a simple level; it encourages an awareness of the management and organization of computer systems; it extends the student's horizons beyond school or college environment in the appreciation of theeffects of computer applications on society and individuals. It provides a range of different opportunities including being creative, logical thinking and the chance to become a competent programmer.

Subject specific entry requirements

In addition to the standard entry requirements, the following subject entry criteria should be met:

- 5 in GCSE Maths
- 4/5 in GCSE English
- GCSE Computing at Grade 5/6 is preferable

Most important for those who want to study A-Level Computer Science is a proven track-record at GCSEComputer Science and/or very strong mathematical ability and evidence of programming ability. An enthusiasm for the subject and a willingness to learn will also be essential. Those students who are unsureof their suitability for the course should speak to a Computing Teacher.

Exam Board

OCR H446 Specification
https://www.ocr.org.uk/images/170844-specification-accredited-a-level-gce-computer-science-h446.pdf

Assessment

The content of this A-Level in Computer Science is divided into three components:

- Paper 1 (Theory based exam with a wide range of topics from data representation to cyber security)
- Paper 2 (Theory based exam which tests students ability to program, as well as their theoretical knowledge ofcomputer science
- Component 3 – Programming Project.

Component	Topic	Length	Weighting
Component 1	Computer Systems	2hr 30 Mins	40 %
Component 2	Algorithms and programming	2hr 30 Mins	40 %
Component 3	Programming Project	Non-Exam Assessment	20%

This course will lead to:

This is the perfect preparation for anybody who wants to study a computer-related discipline at university. Some universities will give preference to students who have specifically studies programming for these courses. Employersvalue the problem-solving skills you will develop.

"Students who study computer science unlock a world of opportunities for themselves." - Dr. John Deasy