



Post 16 Prospectus: GCE COMPUTER SCIENCE

Advanced Subsidiary (AS) & Advanced Level (A2)
Examining Board: OCR

INTRODUCTION

This full A level course is designed to encourage students to develop their knowledge and understanding of hardware and communications, software, applications and effects, and information; as well as skills in analysis, design, implementation and evaluation.

AIM

- An understanding of, and the ability to apply, the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms and data representation.
- The ability to analyse problems in computational terms through practical experience of solving such problems, including writing programs to do so.
- The capacity for thinking creatively, innovatively, analytically, logically and critically.
- The capacity to see relationships between different aspects of computer science.
- Mathematical skills related to:
 - Boolean algebra.
 - Comparison and complexity of algorithms.
 - Number representations and bases
- The ability to articulate the individual (moral), social (ethical), legal and cultural opportunities and risks of digital technology.

COURSE CONTENT

The A Level qualification has three assessed units. There are two externally assessed units and one internal assessment.

A Level Units

Computer Systems	Written exam
Algorithms and Programming	Written exam
Programming Project	Portfolio

SUBJECT SPECIFIC ENTRY REQUIREMENTS

General entry requirement for Post-16: 5 grade 4/C at GCSE, preferably including English and Maths. Specific entry requirements: 6 in GCSE Computer Science and/or Maths.



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STUDENT SUPPORT

We provide a good amount of one-to-one intervention with students after school, lunchtimes, study periods and during the holidays (when necessary, as the projects are highly personalised). Marking and feedback is frequent to support students in refining their work to be the best that they can make it.

STUDENT SUCCESS

Ex IGS student, Eben Upton, founder and former trustee of the Raspberry Pi Foundation, now CEO of Raspberry Pi Trading LTD. Students on our courses have gone on to study Computer Science, Engineering, Networking, Digital Media, ICT and Information Management as well as apprenticeships in IT.