



Computer Science

Course Overview

Pupils develop the capacity to think creatively, innovatively, analytically, logically and critically. It includes more computer science than traditional ICT. A-level Computer Science is excellent preparation for students looking to take computing studies at degree level, or for anyone considering any kind of career in computing. Complimentary subjects are the more logical and technical subjects such as Maths and Science.

Entry Requirements

Minimum grade 6 in GCSE Maths and grade 5 in IT, or, at least a grade 5 in Computing.

1 Computer Systems -Examined Unit

It will cover the characteristics of contemporary systems architecture and other areas including the following:

- The characteristics of contemporary processors, input, output and storage devices
- Software and software development
- Exchanging data
- Data types, data structures and algorithms
- Legal, moral, cultural and ethical issues

2 Algorithms and Programming- Examined Unit

This unit consists of two sections. Sections A and B that cover the following:

- Elements of computational thinking
- Problem solving and programming
- How computers are used to solve problems and programs can be written to solve them
- Algorithms
- What is meant by computational thinking
- The use of algorithms to describe problems and standard algorithms

3 Programming project - Programming Project

Candidates select their own user-driven problem of an appropriate size and complexity to solve. Through coursework, students gain an understanding of definition, investigation and analysis, system design, software development

and testing, documentation, evaluation and how to produce written reports covering these topics.

Robert Wilson A A B

Robert is now studying Computer Sciences at Newcastle University

