**Course title:** Computing A Level OCR Block E

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| **Academic year:** | 2022 |
| **Course Venues:** | Sir Graham Balfour High School |
| **Course Type:** | A level |
| **Course Code:** | 12EGbCP1 |
| **Duration:** | 2 years |

**Course Description:**
We currently follow the OCR syllabus for Computer Science. It is one of the recently reformed A levels, meaning that all assessment occurs at the end of the course, during the summer of Year 13.

**Additional Information:**
A level Computing offers a balance of theoretical computational thinking and practical programming skills. It has an emphasis on abstract thinking, general problem solving, algorithmic and mathematical reasoning and scientific and engineering-based thinking.

**Course Content:**
Unit 1:
- 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

Unit 2:
- Elements of computational thinking
- Problem solving and programming
- Algorithms to solve problems and standard algorithms.

Unit 3:
- Programming Project - the computing practical project

**Entry requirements:**
The standard entry criteria to study in the sixth form are a 9-4 in at least seven different subjects, including English and mathematics, which would usually be at grade 4 or above.

To study the subjects at A-level, you need to achieve at least a grade 5 or above at GCSE.

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**Assessment:**
There are two written examinations and one non-examination assessment.

**Paper 1**
- Tests theoretical knowledge of Computer Science.
- 2 hour 30 minutes written examination.
- 40% of A level.
- Compulsory short answer and extended answer questions.
- Non-Calculator Paper

**Paper 2**
- Tests the students' ability to program, as well as their theoretical knowledge of Computer Science.
- 2 hour 30 minutes written examination.
- 40% of A level.
- Compulsory short answer and extended answer questions.
- Non-Calculator Paper

**Non-Examination Assessment**
- Assesses a student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem. Students will be expected to follow a systematic approach to problem solving.
- 20% of A level

**Financial Information:**
It would be beneficial but not essential for students to purchase copies of the OCR approved text book for the course and a text book with programming exercises for practical experience.
We select the programming language to be taught for paper 2 to ensure there are free versions of software available for developing programs. Students may wish to specialise in a different programming language for their coursework and this may incur a cost if they wish to purchase a home license.

**Future opportunities:**
The course has been designed for students who wish to go into higher education or employment where knowledge of computer science would be beneficial. One can study computing and go on to a career in Business, Computing or Engineering.

**Further information:**
There is a clear distinction between this specification and the GCE ICT specification. It has been written to avoid any overlap of subject content. Students following this specification do not need to have any prior knowledge of Computing or ICT, although interest and enthusiasm in programming is very beneficial.