

## Revision and Resources – A-level - Computer Science

|                      |  |
|----------------------|--|
| <b>Course Title</b>  | AQA A-Level Computer Science (7517)  |
| <b>Exam Board</b>    | AQA  |
| <b>Specification</b> | <a href="https://filestore.aqa.org.uk/resources/computing/specifications/AQA-7516-7517-SP-2015.PDF">https://filestore.aqa.org.uk/resources/computing/specifications/AQA-7516-7517-SP-2015.PDF</a>  |
| <b>Assessment</b>    | <p>The course is assessed through a combination of two exam papers [80%] and a Non-Examined Assessment [20%]</p> <p>Paper 1 (40%): an onscreen examination that tests a student's ability to program, as well as their theoretical knowledge of computer science from the following topics:</p> <ul style="list-style-type: none"><li>- Fundamentals of programming</li><li>- Fundamentals of data structures</li><li>- Fundamentals of algorithms</li><li>- Theory of computation</li></ul> <p>Paper 2 (40%): this paper tests a student's ability to answer questions from the following topics:</p> <ul style="list-style-type: none"><li>- Fundamentals of data representation</li><li>- Fundamentals of computer systems</li><li>- Fundamentals of computer organization and architecture</li><li>- Consequences of computing</li><li>- Fundamentals of communications and networking</li><li>- Fundamentals of databases</li><li>- Big Data</li><li>- Fundamentals of functional programming</li></ul> <p>Non-Examined Assessment (20%): the non-exam assessment assesses 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.</p> |
| <b>Key Dates</b>     | <ul style="list-style-type: none"><li>- Haft-termly assessments</li><li>- Year 12 mock exams in the Summer term (June)</li><li>- Year 13 mock exams in the Spring term (January)</li><li>- NEA Submission to exam board May year 13</li></ul>  |

|  |   |
|--|---|
| <b>How do I revise effectively?</b>            | <ul style="list-style-type: none"> <li>- Begin by thoroughly understanding the specification and the topics that will be covered.</li> <li>- Review class notes and materials. Pay attention to key concepts, definitions, algorithms and programming principles. Make sure you understand the material before moving onto practice questions.</li> <li>- Plan a realistic revision schedule that allocates time for each topic. Break your study sessions into manageable chunks and assign specifics to each session.</li> <li>- Practice past papers. Familiarize yourself with the exam format and the types of questions asked. Solve the questions under timed conditions to simulate the exam environment.</li> <li>- Always seek clarification for anything that you find difficult to understand.</li> <li>- Use visual aids and diagrams</li> <li>- For programming related topics, practice coding and implementing algorithms and programs</li> </ul> |
| <b>Past Papers</b>                             | <p>Paper 1 - <a href="https://www.aqa.org.uk/subjects/computer-science-and-it/as-and-a-level/computer-science-7516-7517/assessment-resources?f.Resource+type%7C6=Question+papers&amp;f.Component%7C7=Paper+1">https://www.aqa.org.uk/subjects/computer-science-and-it/as-and-a-level/computer-science-7516-7517/assessment-resources?f.Resource+type%7C6=Question+papers&amp;f.Component%7C7=Paper+1</a></p> <p>Paper 2 - <a href="https://www.aqa.org.uk/subjects/computer-science-and-it/as-and-a-level/computer-science-7516-7517/assessment-resources?f.Resource+type%7C6=Question+papers&amp;f.Component%7C7=Paper+2">https://www.aqa.org.uk/subjects/computer-science-and-it/as-and-a-level/computer-science-7516-7517/assessment-resources?f.Resource+type%7C6=Question+papers&amp;f.Component%7C7=Paper+2</a></p>   |
| <b>Textbooks and Revision Guides Available</b> | <p>AQA A level Computer Science – Bob Reeves<br/> A-Level Computer Science for AQA Unit 1 – Kevin Bond<br/> A-Level Computer Science for AQA Unit 2 – Kevin Bond</p>  |
| <b>Online Resources</b>                        | <p>Use resources on individual Google Classroom pages set up by the Computing Department and your teachers.<br/> Craig and Dave YouTube videos - <a href="https://www.youtube.com/@craigndave/playlists?view=50&amp;sort=dd&amp;shelf_id=7">https://www.youtube.com/@craigndave/playlists?view=50&amp;sort=dd&amp;shelf_id=7</a><br/> Isaac Computer Science - <a href="https://isaacomputerscience.org/topics/a_level?examBoard=all&amp;stage=all#all">https://isaacomputerscience.org/topics/a_level?examBoard=all&amp;stage=all#all</a><br/> Physics and Math’s tutor - <a href="https://www.physicsandmathstutor.com/computer-science-revision/">https://www.physicsandmathstutor.com/computer-science-revision/</a></p>  |