

# Computing

<b>AS Course Overview:</b>	<b>Unit</b>	<b>Title</b>
<p><u>01 Computing principles</u> - This component will introduce you to the internal workings of the Central Processing Unit, the exchange of data and will also look at software development, data types and legal and ethical issues.</p> <p><u>02 Algorithms and problem solving</u> - This component will incorporate and build on the knowledge and understanding gained in the Computing principles component. In addition, you will:</p> <ul style="list-style-type: none"> <li>• understand what is meant by computational thinking</li> <li>• understand the benefits of applying computational thinking to solving problems</li> <li>• be able to use algorithms to describe problems.</li> </ul>	1	01 Computing Principles
	2	02 Algorithms and Problem Solving
<p><b>How will I be assessed?</b></p> <p>01 Computer Principles – Externally marked exam – 50% - 70 marks / 1hr 15 mins</p> <p>02 Algorithms and Problem Solving – Externally marked exam – 50% - 70 marks / 1hr 15 mins</p>		

<b>A Level Course Overview:</b>	<b>Unit</b>	<b>Title</b>
<p><u>01 Computer Systems</u> - This component will introduce you to the internal workings of the Central Processing Unit, the exchanging of data and also looks at software development, data types and legal and ethical issues.</p> <p><u>02 Algorithms and problem solving</u> - This component will incorporate and build on the knowledge and understanding gained in the Computer Systems unit in addition, you will should:</p> <ul style="list-style-type: none"> <li>• understand what is meant by computational thinking</li> <li>• understand the benefits of applying computational thinking to solving a wide variety of problems</li> <li>• understand the principles of solving problems by computational methods</li> <li>• be able to use algorithms to describe problems</li> <li>• be able to analyse a problem</li> </ul> <p><u>03 Programming Project</u> - Through coursework candidates 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.</p>	1	01 Computer Systems
	2	02 Algorithms and Programming
	3	03 Programming Project
<p><b>How will I be assessed?</b></p> <p>01 Computer Principles – Externally marked exam – 40% / 2hr 30 mins</p> <p>02 Algorithms and Problem Solving – Externally marked exam – 40% / 2hr 30 mins</p> <p>03 Programming Project – Coursework Project – 20%</p>		

## What do I need to join?

A minimum of a grade 4 in GCSE Computer Science would be accepted to start this course. A grade 5, however, is preferred.

Also, due to the very strong reliance on Maths and analytical thinking skills a grade 5 or above in GCSE maths is highly desirable.

## Staff contact:

**Mr Gary Cornyn**

## Where could this A Level take me in the future?

This is an EXCELLENT course for those wishing to pursue a degree in Computing, Computer Programming or Computing Games Design. A career from a huge range of businesses and industries, this course has direct student placement links with Renishaw.