

Why study Computer science?

This link gives [**10 Reasons to take a Computer Science Degree**](#), including making a positive difference in the world; offering many types of lucrative careers; and expertise in computing helps you even if your primary career choice is something else - which I will pick up on further down.

[Jobs of the future](#) / pdf. [Pretty Curious and EDF Energy/Jan 2017] ***"Computing skills will be the most in demand, with the most job openings and the highest number of new jobs (25%). Computer services will be the most science-dependent industry followed by scientific research, information services, telecommunications and computers.***

Science, research, engineering and technology jobs will grow at double the rate of other occupations creating 142,000 extra jobs between now and 2023. Future jobs will include: Computer coders; Geotechnical Design Engineers; Intelligence Consultants; Robotics Engineers; Data Scientist. Data Scientist is a destination career for many successful mathematicians. For example, I went to a lecture on Artificial Intelligence in Leeds in June with a York Computer Scientist and his son who will be doing a Masters in Data Science (at UCL which has links with Google Deepmind) after getting his Maths degree at Oxford - see [Data scientists: 'As rare as unicorns'](#) [The Guardian Feb 2015].

If you are doing a science subject then ***"Computational thinking is fundamentally transforming scientific research.*** Today's [computer] simulation techniques so pervade scientific practice that they have added a third basic tool to those of theory and experiment". [Science as an open enterprise](#) [Royal Society / June 2012]. ***Computational thinking underpins A-level Computer Science and you cannot afford to miss out 2 years of developing these skills and understanding.***

The myth that A-level computing is not important for Russell Group Universities. Former Head of Department Chris Sharples (<http://www.gr8computing.com/why-consider-computer-science-2/>) asked the key person at York University and he explains in detail why it is "looked upon favourably" but can only ever be "useful" in the Russell Group's [Informed Choices](#) whilst Maths remains as essential. Programming is like a language, and would you miss out two years of practising Python when it is the de facto language in Maths and Science degrees? There is anecdotal evidence that more businesses are requiring computer science integrated with other careers - for example, the son of a colleague at a recent CAS research meeting quoted her son as successful with his 23rd internship application because he had a computer science A-level and that he is now using those skills and understanding at that bank.

What can you expect from Computer Science at A-level?

Lady Lumley's will be making a switch from Eduqas to OCR for A-levels. This change will bring more support and resources with which to build our already extensive course provision. The emphasis of OCR will be an equal split between theory and practical skills to ensure a broad experience of the subject. The specification can be found [here](#).

Over the course of two years of study you will complete two written examined components, one theoretical, the other practical. You will also complete a substantial programming project in your second year which will contribute to your overall A-level grade.

We have a range of resources/material to draw from and excellent teaching. The course builds on GCSE content allowing us to explore topics in more detail and also allow freedom to explore topics beyond the curriculum.

If you have any questions regarding the curriculum or A-level provision please do not hesitate to contact myself, or the School for any information.

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