

## Python programming essentials for GCSE computer science

Broaden your understanding of Python programming to enhance your teaching of GCSE computer science in this 2 day course.

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### Summary

**This course is delivered as part of the National Centre for Computing Education, and forms part of the Computer Science Accelerator programme.**

The level of programming skill required for GCSE becomes demanding, and may seem daunting for those without a programming background. This professional development aims to take you from novice programmer to competent teacher of Python programming. You'll be walked through the fundamentals of programming, with lots of hands-on experience under the guidance of highly successful teachers of computer science.

You'll find out about writing easy-to-understand code to collect, process and display data. Develop your knowledge of data types, and how data structures are manipulated in python programs. Become confident in using logic and arithmetic to write efficient code to execute algorithms. New program code almost always contains errors; you'll become adept at identifying and correcting them, and testing the functionality of your code.

Mapped closely to the specifications of GCSE computer science, the course will provide you with deepened knowledge and confidence that your students are equipped for assessments.

### Outcomes

You will gain the required knowledge to help your students

- plan, write and test clear, efficient Python programs that can output to the screen, and make use of file handling

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for North West England**

- understand how to correctly use control flow statements, such as loops, conditional branches and function calls
- make effective use of data structures and data types, understanding variable scope.
- understand error messages and effectively debug their code

**Price: £0 per delegate\***

\*This course is part of the GCSE Computer Science Accelerator Programme CPD and is free for teaching staff from state maintained schools. In addition, a bursary of £220 per day can be reclaimed as long as the teacher completes 2 x 2d face to face training courses (total £880). Any subsequent courses a teacher undertakes are free of charge but no bursary is available. There is also an additional bursary of £600 if the teacher completes 16 hours of online training modules and the associated online knowledge test. All bursaries are managed by Stem Learning as part of the course booking and delivery process and will be paid direct to the school.

Further bursary information can be found here [teachcomputing.org/bursary](https://teachcomputing.org/bursary)

This is a 2 day course. Delegates will be booked onto both dates.

**Course Dates**

24 January and 07 February 2020	Runshaw College, Euxton, Chorley
09 March and 23 March 2020	MGL, Liverpool

Sign up to courses via: [www.mglworld.com/ncce](https://www.mglworld.com/ncce)