

Teaching GCSE Computer Science Day 1: Hands-On GCSE Overview and Understanding Programming

Get ahead with the programming aspects of the GCSE and develop applications in Python

09.00 **Registration and Morning Refreshments**

09.40 **Introduction to Python Programming for the '7 Strands'**

- ① Algorithm ② Assignment ③ Input/Output ④ Abstraction ⑤ Selection ⑥ Iteration ⑦ Validation
- Understand these terminologies and what they mean in plain language.
- Hands on programming session to introduce programming and 'how to teach programming'.

11.00 **Coffee Break**

11.20 **7 Strands in Practice: Python**

- Create simple programs and view output
- Accept user input and produce output
- Use variables, produce calculations, use comparison operators and learn Python shortcuts
- Work with selection and create programs
- Pedagogy of teaching programming in the classroom.
- How to think Like a programmer.

12.40 **Lunch**

13.20 **7 Strands in Practice: Developing a controlled assessment type project in Python**

- Extend your skills from the morning session and learn how to build up a large project the right way.

14.40 **Coffee Break**

15.00 **Continue your programming project**

- Extend your project with file handling and extra features

15.40 **Looking at your project as a GCSE Controlled Assessment type task**

- How to write a large project such as a controlled assessment task
- Resources for teaching the theory aspects of the course.

16.20 **Recap and Event Close**

Teaching GCSE Computer Science - Day 2: Advanced Skills

Develop the more advanced skills
necessary for success over the GCSE programme

09.00	Registration and Morning Refreshments
09.40	More Advanced Python - Iteration, Procedures, Parameters, Functions, efficiency <ul style="list-style-type: none">• Python Iteration and Iterators• Create Procedures and Functions to make your programs more efficient• Learn how to pass and return parameters.
11.00	Coffee Break
11.20	BYOB <ul style="list-style-type: none">• Learn how to use BYOB as an introduction to programming constructs• Write a selection of programs in BYOB• Using BYOB as a second language to back up your Python training
12.40	Lunch
13.20	Advanced Python - Solving Problems using Lists, Libraries, Error Trapping, Sorting <ul style="list-style-type: none">• Apply what has been learnt to situations similar to those found in the controlled assessments• Combine all the techniques covered in the previous sessions and introduce more advanced concepts• Solve problems using error trapping, Libraries and lists• Learn how to sort data in Lists, extend Python with libraries and Extending your Python skills further
14.40	Coffee Break
15.00	Looking at Controlled Assessment-type skills <ul style="list-style-type: none">• How students can achieve A+ in a controlled assessment• Examples of past assessment material from exam boards.• Identify the key characteristics of student success at GCSE
16.20	Recap and Event Close

Booking Form (also available in [Word format](#))

Teaching GCSE 2 Day CPD - Programming — £345 per place

London 6th—7th December 2017

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