

*Continuing Professional
Development in Computer Science*

Teaching Python Programming in Schools

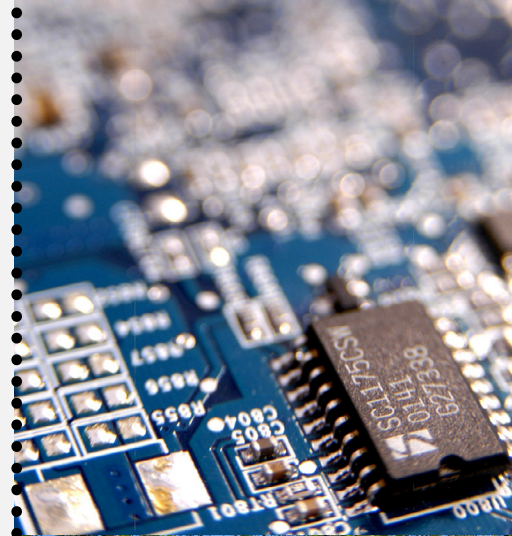
Workshop Series for Secondary School Teachers

**Six sessions:
September 2016 to June 2017**

Advance your teaching practice for **Python Programming** with a six week twilight workshop series in a leading centre for computer science-related research and education. Our strongly funded facilities and equipment combine cutting edge theory with extensive practical training that allow professionals to continue to grow their knowledge.

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SchoolImprovement
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Teaching Python Programming in School: Workshop Series for Secondary Schools Teachers

The workshop series will involve six sessions from September 2016 to June 2017. Each will include an overview, initial practical session, further instruction and follow up practical session.

SESSION ONE: WEDNESDAY 28 SEPTEMBER 2016, 4PM-6PM

- Introduction to Python
- Data declarations, assignments and initialisation
- Variables and constants
- Data types
- Input/Output (I/O)
- Arithmetic
- Type conversion

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
Note: Computational Thinking is introduced in Session One and forms a 'running theme' through all sessions	
2.1 Algorithms; 2.2 Programming techniques; 2.5 Translators and facilities of languages; 3.1 Programming techniques 3.2 Analysis; 3.3 Design; 3.4 Development	3.1.1 Representing Algorithms; 3.1.2 Efficiency of algorithms; 3.2.2 Programming concepts; 3.2.3 Arithmetic operators in a programming language; 3.2.1 Structured programming; 3.2.1.3 Classification of programming languages

SESSION TWO: WEDNESDAY 30 NOVEMBER 2016, 4PM-6PM

- Program statements and constructs
- Functions and parameter passing
- Expressions and operators
- Selection/branching (if-else, case)

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
2.2 Programming techniques; 3.1 Programming techniques; 2.3 Producing robust programmes; 2.4 Computational logic	3.1.1 Representing Algorithms; 3.1.2 Efficiency of Algorithms; 3.2.1 Data types; 3.2.2 Programming concepts; 3.2.3 Arithmetic operators in a programming language; 3.2.1 Structured programming; 3.2.1.2 Classification of programming languages

SESSION THREE: WEDNESDAY 25 JANUARY 2017, 4PM-6PM

- Iteration
- Simple loops
- Nested loops
- Introduction to recursion

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
2.2 Programming techniques; 3.1 Programming techniques; 3.5 Testing and evaluation and conclusions	3.1.1 Constants, variables and data types; 3.1.4 Procedures and functions; 3.1.5 Scope of variables, constants, functions and procedures; 3.1.6 Error handling

SESSION FOUR: WEDNESDAY 15 MARCH 2017, 4PM-6PM

- Compound data types
- Introduction to tuples and list
- Tuple and list processing

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
2.2 Programming techniques; 3.1 Programming techniques	3.2.6 Data structures; 3.1.3 Searching algorithms; 3.1.4 Sorting algorithms

SESSION FIVE: WEDNESDAY 17 MAY 2017, 4PM-6PM

- Introduction to Dictionaries
- Dictionary usage
- Dictionary processing

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
2.2 Programming techniques; 3.1 Programming techniques.	3.2.8 String handling operations in a programming language

SESSION SIX: WEDNESDAY 28 JUNE 2017, 4PM-6PM

- String handling
- Working with files
- File processing
- Exceptions
- Where next

OCR GCSE (9-1) Computer Science Specification J276	AQA GCSE Computer Science Specification 8250
2.2 Programming techniques; 3.1 Programming techniques	3.2.6 Data structures; 3.2.7 Input/output and file handling

Registration and Fee:

£100 for all six sessions ([Click here to register](#))

Please note: If your school has a finance agreement with School Improvement Liverpool, workshop fees can be reimbursed (100% if all six sessions are attended and 50% if 3-5 sessions are attended).

Further informaton:

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Location:

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