



# Fast track Python

## 3 day training course



## Course contents

This course will cover the following topics. Those marked with (\*) will be covered if time allows.

### From our Introduction to Python course

#### Basic coding

- Python variables
- Testing conditions
- Printing and f-strings

#### Visual Studio Code

- Installing extension
- Configuring settings
- Useful short-cuts

#### Running and debugging

- The code runner extension
- Stepping through code
- Setting breakpoints

#### Ranges and loops

- WHILE loops
- Breaking out of loops
- Ranges of numbers

#### Working with modules

- Installing modules using PIP
- System modules (OS and SYS)
- Maths functions (MATH)

#### Sequences

- Tuples versus lists
- Iterating over sequences
- Slicing sequences
- Joining and splitting

#### Manipulating lists

- Adding/removing items
- Sorting lists
- Shallow and deep copies

#### Files and folders

- Reading and writing
- Using WITH
- Looping over lines
- Looping over folders using GLOB

#### Error handling

- The try clause
- Handling exceptions

#### Working with data types

- Manipulating strings
- Numbers and Booleans
- The DATETIME module



## From our Advanced Python programming course

### Working with sets

- Sets versus lists
- Examples of set use

### Dictionaries

- Key/value pairs
- Retrieving items
- Looping over items

### Functions

- Defining functions
- Passing arguments
- Optional arguments
- Modular programming

### Scraping websites

- Understanding HTML
- The REQUESTS module
- Using BeautifulSoup

### Comprehensions

- List comprehensions
- Generators

### Working with CSV files

- Reading and writing CSV files
- Dictionaries using the CSV module

### Working with Excel

- Using OPENPYXL
- Workbooks, worksheets and cells
- Python for Excel or VBA?

### Working with JSON

- The JSON module
- Loading and dumping data

### Working with databases

- The PYODBC module
- Connections and cursors

### Overview of Pandas

- Dataframes and series
- Reading/writing dataframes
- Filtering, sorting and renaming
- Dataframe calculations

### Overview of NUMPY (\*)

- Shapes, ranks and data types
- Slicing arrays
- Array operations

### Power BI and Python (\*)

- Getting Python data
- Python visuals using dataframes

## Pre-requisites for Fast track Python course

You will find this course difficult if you can't tick one of the following two boxes:

- You've a fair amount of previous programming experience (the language is not that important); or
- You find it easy to understand nested IF functions in Excel, enjoyed maths at school or have a naturally logical mind.

## Prices

Venue	Address	Price per place
<a href="#">London</a>	Landmark, 99 Bishopsgate, London EC2M 3XD	£1,995 per person + VAT
<a href="#">Manchester</a>	Holiday Inn, 25 Aytoun Street, Manchester M1 3AE	£1,695 per person + VAT
<a href="#">Online</a>	Your home or office!	£1,350 per person + VAT

## Scheduled Dates

Dates	Venue	Times	Price per place	Booking
Tue/Thu 29-31 July 2025	Online	09:30-16:30	£1,350 + VAT	<a href="#">Book this</a>
Mon/Wed 29th Sep/1st October 2025	Online	09:30-16:30	£1,350 + VAT	<a href="#">Book this</a>
Wed/Fri 26-28 November 2025	Online	09:30-16:30	£1,350 + VAT	<a href="#">Book this</a>

If you can't see the dates that you want, ask us about organizing a customized course at your office (we'll provide and set up the computers), or else an online course tailored to your needs.