Fast track Python

This course combines topics from the following courses (any items marked with a * will be covered if time allows).

Topics taken 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

Topics taken 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

Maximum 6 people per course. Scheduled classroom courses include lunch at a local restaurant; you can see how our online training works here. For more information, see https://www.wiseowl.co.uk/.