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

Wise Owl Training

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

Pandas

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

NUMPY

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

Power BI and Python

- Getting Python data
- Python visuals using dataframes

Matplotlib (*)

- Getting data for charting
- Implicit vs explict references
- Figures, axes and subplots
- Formatting matplotlib charts