Telephone: 0208 942 5724
Email: info@aspecttraining.co.uk

YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

# Python Programming

## Duration: 3 days

### Overview:

Python is an Object Oriented rapid development language deployed in many scenarios in the modern world.

This Python Programming course is designed to give delegates the knowledge to develop / maintain Python scripts using the current version of Python.

There are many similarities between Python V2 and Python V3 so the skills gained on this course will allow the delegate to develop their own skills further using Python V2 or V3 to support the maintenance of scripts.

### Prerequisites:

Attendees should be familiar with the Concepts of Programming.

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### Topics:

#### 1 - Introduction to Python

What is PYTHON and why PYTHON is useful

Installing Python

The IDLE editor

A simple PYTHON Program.

#### 2 - Python Basics

How to run PYTHON programs on UNIX and Windows platform

Lines and Indentation

Multiple line Statements

Quotation Marks

Reserved Words in Python

Python Suites

Input

Output

Working with Files

**3 - Python Variables**

Assignments

Data Types

Numbers

Strings

Lists

Tuples

Dictionaries

**4 - Python Operators**

Arithmetic Operators

Comparison Operators

Assignment Operators

Bitwise Operators

Logical Operators

Membership Operators

Identity Operators

Operator Precedence

**5 - Conditional and control statements**

If Else Elsif constructs

While and For Loops

Iteration

**6 - unctions**

Creating Functions

Def Statement

Calling functions

Scoping variables

Passing arguments

**7 - Modules**

What is a module

Standard modules

How to define and code a module

Using import

Argument passing and return values from a module

**8 - Pattern Matching**

The re module

How pattern matching works

Pattern matching operators

Pattern matching special characters

Pattern matching options

Pattern substitution

Pattern tagging

Translation

**9 - Python OO**

Why use OO

Creating a simple class

Inheritance

Passing data into a class

More complex classes

**10 - Exceptions**

What are exceptions

Default Handler

Catch/Try/Raise Statements

Class Based Exceptions

What Not To Do

**11 - Working with databases**

Python and Databases

Connecting to MySQL Database

Working with tables /Records

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