

# Developing Python Programming

## Course Outline and Specification



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## Introduction

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This course leads on from the Introduction to Python Programming, for those who have developed their skills in Python programming concepts, detailing areas such as understanding the editor, variables, data types, functions, conditions, loops, and arrays.

This is an interactive course and practical in nature. It can be held fully self-paced, online or within the classroom, to suit learner needs.

A practical course throughout, learners should be prepared to program directly from the beginning.

## Duration

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This is a one day short-course in a classroom setting or can be held online and tutor-led over a number of sessions, or alternatively self-paced via purely online learning.



# Course Outline

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## Using If, Elif and Else

- Understanding concepts
- Creating statements
- Incorporating And and Not
- Creating a nested if

## Further While Loops

- Looking at While loops
- Using statements
- Understanding For
- Understanding Ranges

## Using Functions

- Creating functions
- Understanding parameters
- Introducing recursion

## Lambda in Python

- Understanding the lambda function

## Arrays in Python

- Understanding how to store arrays
- Using elements
- Looping and using methods

## Introducing Classes and Objects

- Creating classes
- Creating objects
- Using functions
- Using parameters and properties
- Understanding inheritance
- Using Iterators
- Understanding polymorphism

## Modules and Libraries

- Importing a library
- Built in libraries
- Using variables and functions

## Mathematic Functions

- Using built in math
- Operating math functions

## File Handling

- Understanding syntax
- Using open, read, append, write, create, close, delete and check files



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