Python for Beginners - Level 3 Course

Key Information

Course Format:
Online Course

Price:
£225.00

Assessment:
Assignments

Payment Options:
Spread the cost over 4 monthly payments

Approximate Study Time:
140 Hours of Self Study

Initial Payment of
£90.00

Approximate Delivery Time:
1-2 Working Days via Email

Followed by 3 payments of:
£45.00

The **Python for Beginners – Level 3 Course** is designed for students wanting to get started with this high-level general-purpose programming language. Python can be easy to pick up whether you're a first time programmer or you're experienced with other languages.

Although Python's clear and simple syntax makes it the perfect beginners' language, it has all of the power and flexibility of a complex object-oriented programming language. Using the proven learn-by-example technique, we take you step-by-step through the Python language by introducing you to a number of interesting games, starting with simple games, such as the "guess the number" and hangman games, building on your knowledge progressively to produce more complicated games, like the hungry caterpillar game, and culmulating with the exciting and sophisticated Meteor Mayhem game, which includes brilliant graphics, theme music, sound effects, and great animation.
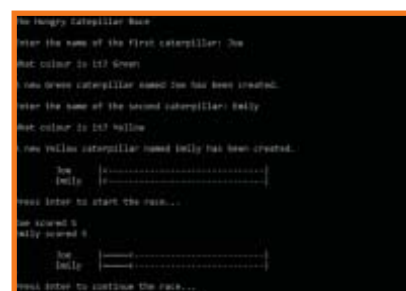
We start by demonstrating how to install the Windows version of Python and we progress slowly but surely by writing small programs that demonstrate each new concept or technique, moving on to more advanced programs usually in the form of an interesting game.

Python's easy-to-learn syntax facilitates high-readability, reducing the cost of program maintenance, and supports modules and packages, which encourages modularity and code reuse. The Python interpreter and extensive library are available completely free of charge for all major platforms, and can be freely distributed.

On successful completion of the course, students will receive the Distance Learning Centre Python for Beginners Diploma with feedback and analysis of your completed work, as well as an Open Awards Quality Endorsed Unit Course Certificate.

The training programme is delivered through the Distance Learning Centre's new online training portal, which is accessed via a web browser such as Internet Explorer, Edge, Firefox, Chrome, or Safari. Throughout the course students are supported by a personal course tutor who can give feedback on your work at any time throughout your study.

Distance Learning Centre

Call: 0845 1297238 - **International:** +00 44 191 5120481
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Python for Beginners - Level 3 Course

The Python for Beginner's course consists of the following Lessons:

• Lesson 1 – Getting Started
The following topics are covered:Introduction; Introduction to Python; Understanding Variables; Python Strings; Performing Arithmetic; Logical Operations; Working With Numbers; Working With Strings; Lesson Review & Quiz; Assignment 1 – The Trivia Program.

• Lesson 2 – Looping & Branching
The following topics are covered:Introduction; Branching Statements; The WHILE Loop; Guess The Number Game; The FOR Loop; The Anagram Game; Lesson Review & Quiz; and Assignment 2 – Guess The Word Game.

• Lesson 3 – Lists & Dictionaries
The following topics are covered:Introduction; Introducing Lists; List Methods; Nested Sequences; Introducing Dictionaries; The Hangman Game; Lesson Review & Quiz; and Assignment 3 – The Anagram Game with Clues.

• Lesson 4 – Functions
The following topics are covered:Introduction; Creating Functions; Parameters & Arguments; Variables in Functions; The Noughts & Crosses Game (1); The Noughts & Crosses Game (2); Lesson Review & Quiz; and Assignment 4 – Updating the Hangman Game.

• Lesson 5 – Accessing Files
The following topics are covered:Introduction; Accessing Text Files; Storing Complex Data in Files; Handling Exceptions; The Sports Quiz; Lesson Review & Quiz; and Assignment 5 – Build Your Own Quiz.

• Lesson 6 – Python Objects
The following topics are covered:Introduction; Classes, Methods, & Objects; Constructors & Attributes; Class Attributes & Static Methods; Private Attributes, Methods & Properties; The Hungry Caterpillar Game; Lesson Review & Quiz; and Assignment 6 – Create A Television Object.

• Lesson 7 – Object-Orientated Programming
The following topics are covered:Introduction; Creating Multiple Classes; Inheritance; Changing Inherited Methods; Creating Modules; The Blackjack Game (1); The Blackjack Game (2); Lesson Review & Quiz; and Assignment 7 – The Highest Card Game.

• Lesson 8 – GUI Development
The following topics are covered:Introduction; Event-Driven Programming (1); Event-Driven Programming (2); Check Boxes Plus; The Grid Layout Manager; The Contact Form; Lesson Review & Quiz; and Assignment 8 – Find the Diamond Game.

• Lesson 9 – Incorporating Graphics
The following topics are covered:Introduction; Graphics Window Basics; Displaying Objects; Moving Sprites; Collision Detection; The "Catch The Butterfly" Game; Lesson Review & Quiz; and Assignment 9 – Build A Ping Pong Game.

• Lesson 10 – Adding Sound & Animation
The following topics are covered:Introduction; Keyboard Commands; Animation, Sound, & Music; The Meteor Mayhem Game (Part 1); The Meteor Mayhem Game (Part 2); The Meteor Mayhem Game (Part 3); The Meteor Mayhem Game (Part 4); Lesson Review & Quiz; and Assignment 10 – Add Comets To The Meteor Mayhem Game.

Software Requirements:

Although Python is available for Linux and MacOs as well as Windows, the installation and running instructions are for the Windows operating system. All other software is provided with the course.

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Prerequisites:

Students should have: a working knowledge of using text editors or word processors; A basic understanding of your computer's operating system; A working knowledge of your email software and the ability to attach files to an email; A basic knowledge of file zipping software such as WinZip or 7-Zip; and Some experience of downloading and installing software packages from the web.

Course Duration & Support:

Students may register at any time for a fully-supported one-year training licence and will have constant access to a personal tutor via email. As the course is self-study, you can complete in as little or as long a time as you prefer within the one year licence period.

Assessment:

You will be assessed on the completed assignments contained in the training programme. The coursework will consists of individual practical programming assignments that can be sent to your course tutor by email or by post on completion of your training.

Certification:

On successful completion of this course students will receive our Python for Beginners Diploma with feedback on your work and providing the assignments have been completed to the required standards students will also receive a Level 3 Open Awards Quality Endorsed Unit Course Certificate 8 Open Awards Credits.

The completion of this course alone does not lead to an Ofqual regulated qualification but may be used as evidence of knowledge and skills towards regulated qualifications in the future. To this end the learning outcomes of the course have been benchmarked at Level 3 against level descriptors published by Ofqual, to indicate the depth of study and level of difficulty involved in successful completion by the learner.

You can find further information on qualifications/certificates and their levels on the Ofqual Qualification & Credit Framework level descriptors page.

The certification is issued through Open Awards. Open Awards are an Awarding Body Organisation approved by Ofqual. Set up in 1981, Open Awards (Previously the North West Region of the National Open College Network - OCNNW) have been in business for over 30 years and are a not for profit organisation and a registered charity.

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