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Learning Style: Virtual Classroom

Technology:

Difficulty: Beginner

Course Duration: 2 Days

Python Programming: Introduction (LO-94010)



About this course:

Python® has been around for decades, but it's still one of the most versatile and popular programming languages out there. Whether you're relatively new to programming or have been developing software for years, Python is an excellent language to add to your skill set. In this course, you'll learn the fundamentals of programming in Python, and you'll develop applications to demonstrate your grasp of the language.

The average salary for a Python Developer is **\$115,222** per year.

Course Objectives:

- Set up Python and develop a simple application.
- Declare and perform operations on simple data types, including strings, numbers, and dates.
- Declare and perform operations on data structures, including lists, ranges, tuples, dictionaries, and sets.
- Write conditional statements and loops.
- Define and use functions, classes, and modules.
- Manage files and directories through code.
- Deal with exceptions.

Audience:

- This course is designed for people who want to learn the Python programming language in preparation for using Python to develop web and desktop applications.

Prerequisites:

- It is recommended, but not required, that you have at least six months experience programming in an object-oriented language. Even if you don't, this course can be useful to those that are new to programming.

Course Outline:

Lesson 1: Setting Up Python and Developing a Simple Application

Topic A: Set Up the Development Environment

Topic B: Write Python Statements

Topic C: Create a Python Application

Topic D: Prevent Errors

Lesson 2: Processing Simple Data Types

Topic A: Process Strings and Integers

Topic B: Process Decimals, Floats, and Mixed Number Types

Lesson 3: Processing Data Structures

Topic A: Process Ordered Data Structures

Topic B: Process Unordered Data Structures

Lesson 4: Writing Conditional Statements and Loops in Python

Topic A: Write a Conditional Statement

Topic B: Write a Loop

Lesson 5: Structuring Code for Reuse

Topic A: Define and Call a Function

Topic B: Define and Instantiate a Class

Topic C: Import and Use a Module

Lesson 6: Writing Code to Process Files and Directories

Topic A: Write to a Text File

Topic B: Read from a Text File

Topic C: Get the Contents of a Directory

Topic D: Manage Files and Directories

Lesson 7: Dealing with Exceptions

Topic A: Handle Exceptions

Topic B: Raise Exceptions

Appendix A: Major Differences Between Python 2 and 3

Appendix B: Python Style Guide

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