



PYTHON TRAINING

Python Basics Course

Master Python fundamentals. Build essential scripts and applications, setting a strong programming foundation.

DURATION

40 Hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of Python, the world's most versatile programming language, with Computer Pride's Intermediate Python Basics Course. This program is meticulously designed for individuals who have a foundational understanding of programming concepts and are ready to dive deeper into Python's syntax, structures, and practical applications. You will move beyond mere scripting to build more robust and efficient solutions, mastering core language features that are indispensable for any aspiring developer or data professional. We emphasize hands-on learning, ensuring you can immediately apply concepts to solve real-world problems. This course not only solidifies your understanding of Python's fundamental building blocks but also prepares you for more advanced topics like web development, data science, and machine learning, laying a critical groundwork for your future career.

Throughout the course, you will engage with Python 3, covering essential topics such as advanced data structures, function creation, basic object-oriented programming principles, effective error handling, and file input/output operations. By the end of this training, you will be proficient in writing clean, maintainable, and efficient Python code, equipped with the problem-solving skills necessary to tackle a wide array of computational challenges. The professional benefits are immense, positioning you as a valuable asset in roles requiring automation, data manipulation, or general-purpose programming, significantly enhancing your career prospects in the rapidly evolving tech landscape.

Duration	40 Hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Python Fundamentals and Advanced Data Types

- Review of Python Syntax and Basic Data Types
- Working with Lists, Tuples, Sets, and Dictionaries
- List Comprehensions and Dictionary Comprehensions
- String Manipulation and Formatting Techniques
- Introduction to Immutable vs. Mutable Data Structures

02 Module 2: Control Flow, Loops, and Iterators

- Advanced Conditional Statements (if/elif/else)
- For Loops and While Loops with break/continue
- Nested Loops and Their Applications
- Understanding Iterators and Generators
- Introduction to the 'range()' and 'enumerate()' Functions

03 Module 3: Functions and Modularity

- Defining and Calling Functions
- Function Arguments (Positional, Keyword, Default, Arbitrary)
- Return Values and Scope of Variables (LEGB Rule)
- Lambda Functions (Anonymous Functions)
- Introduction to Modules and Packages (import statement)
- Creating and Using Custom Modules

04 Module 4: Error Handling and Debugging

- Understanding Different Types of Errors (Syntax, Runtime, Logical)
- Using Try, Except, Else, and Finally Blocks
- Handling Specific Exceptions
- Raising Custom Exceptions
- Basic Debugging Techniques in Python (e.g., print statements, simple debuggers)

05 Module 5: File Operations and Object-Oriented Basics

- Reading and Writing Text Files
- Working with CSV Files (csv module)
- Introduction to Classes and Objects
- Defining Attributes and Methods
- The 'self' Keyword and Constructors (__init__)
- Basic Inheritance Concepts

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Python Developer (Entry-Level applications, scripting, automation)**
- > **Data Analyst Assistant (Scripting for data cleaning, basic analysis, report generation)**
- > **Automation Script Developer (Creating scripts for IT operations, task automation)**

FREQUENTLY ASKED QUESTIONS

Q: What specific skills will I gain that are applicable to immediate job roles after completing this Intermediate Python Basics Course?

Upon successful completion, you will be proficient in writing clean, efficient, and well-structured Python code for automation tasks, data manipulation, and scripting. You will master advanced data structures, functional programming basics, object-oriented principles, and robust error handling, making you capable of contributing to projects requiring foundational Python development, data preparation, or operational scripting.

Q: What are the prerequisites for enrolling in this Intermediate Python Basics Course?

This course is designed for learners who already possess a fundamental understanding of programming logic and basic Python syntax. Ideally, you should be familiar with variables, simple data types (integers, strings), basic arithmetic operations, and simple conditional statements. While not strictly required, prior exposure to any programming language would be beneficial, as the course quickly moves beyond absolute beginner concepts.

Q: How does this 'Python Basics Course' prepare me for more advanced Python specializations like Data Science or Web Development?

This course lays a crucial groundwork by solidifying your understanding of Python's core mechanics, including data structures, functions, and object-oriented programming. These are the building blocks for any advanced specialization. For Data Science, you'll have the strong programming base needed to learn libraries like Pandas and NumPy. For Web Development, the principles of functions and modularity are directly transferable to frameworks like Django or Flask, ensuring you can build complex applications effectively.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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