

# Certified Entry-Level Python Programmer (PCEP) Training Course

Certified Entry-Level Python Programmer (PCEP) certifies foundational skills in Python programming, essential for those starting a career in coding and development.

DEV-100

## Course Objectives

## Professional, practical, & hands-on live instructor-led training

Start as a beginner and graduate as a certified professional, with the skills, experience, and job-search know how to get your career started.

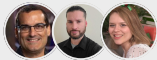
 Start Today

## Potential Career Tracks

Junior Python Developer IT Support Specialist

Data Analyst Assistant Junior Software Tester

Automation Specialist Technical Support Engineer



Taught by Industry Veterans &  
Qualified Instructors

## Introduction to Certified Entry-Level Python Programmer (PCEP)

### Course Overview

Intellectual Point's Certified Entry-Level Python Programmer (PCEP) training course offers a comprehensive introduction to Python programming, perfect for beginners looking to enhance their development skills. This course is structured to guide you through the fundamental concepts of Python programming including data types, control flow mechanisms, and functions, while also preparing you for the PCEP certification exam. With a mix of theory and practical coding exercises, you'll build a solid foundation in Python that will support further development in more advanced programming tasks.

In this course, you will explore the basics of Python syntax, string operations, and list manipulations. The training includes hands-on projects and quizzes to reinforce your learning and build proficient coding skills. By the end of the program, you should be ready to tackle the PCEP certification exam and apply your newfound programming competencies in real-world tasks.

### Obtainable Skills

Python Syntax and Semantics

Data Type Operations

Control Flow Implementation

Function Definition and Usage

List and String Manipulation

Basic Problem-Solving Skills

Conditional Statements and Loops

Error Handling and Debugging

Certification Exam Preparation

## Course Insights

### Audience Profile

The Certified Entry-Level Python Programmer (PCEP) course is tailored for aspiring programmers and individuals interested in starting a career in software development. This training is ideal for students, career changers, or professionals from non-technical backgrounds looking to transition into tech roles. It is also suitable for IT support specialists, data enthusiasts, or individuals interested in using Python for automation or data analysis. No prior programming experience is necessary, making it accessible for those with a keen interest in learning to code and gaining a recognized entry-level certification.

### Course Objectives

By the end of this course, participants should:

1 Gain proficiency in writing Python scripts and understand core programming concepts.

2 Develop the ability to implement basic control flow tools like loops and conditionals effectively.

3 Understand how to manipulate and work with strings and data structures in Python.

4 Acquire a solid foundation for further specialization or advanced Python programming pursuits.

5 Prepare to successfully pass the PCEP certification exam, validating your skills.

Module by Module Learning *Outline*

6 Modules

## Module 1: Introduction to Python Programming

## Learning Objectives:

- Understand the basic syntax and semantics of Python
- Familiarize with the Python programming environment.

## Topics Covered

## Python Syntax Basics:

- Setting up Python and running simple scripts.
- Understanding indentation and code blocks.

## Python Programming Environment:

- Installing and configuring Python on your computer.
- Introduction to Integrated Development Environments (IDEs).

## Module 2: Data Types and Variables

## Learning Objectives:

- Learn about different data types and variable creation in Python.
- Perform data type operations effectively.

## Topics Covered

## Understanding Data Types:

- Overview of numeric, string, and boolean data types.
- Type conversions and operations on data types.

## Variables and Assignment:

- Defining and using variables in Python.
- Best practices for naming and managing variables.

## Module 3: Control Flow Mechanisms

## Learning Objectives:

- Implement control flow using conditional statements.
- Understand and apply loops in Python programming.

## Topics Covered

## Conditional Statements:

- Using if, elif, and else statements for decisionmaking.
- Nesting and combining conditional statements.

## Looping Constructs:

- Understanding the use of for and while loops.
- Controlling loop execution with break and continue.

## Module 4: Functions and Modular Programming

## Learning Objectives:

- Define and use functions to create modular code.
- Master function arguments and return values.

## Topics Covered

## Function Definition and Usage:

- Creating functions and using parameters.
- Scope and lifetime of variables within functions.

## Advanced Function Features:

- Default arguments and variablelength arguments.
- Understanding return statements and recursive functions.

## Module 5: Working with Strings and Lists

## Learning Objectives:

- Manipulate and operate on strings and list data structures.
- Understand different list methods and string operations.

## Topics Covered

## String Operations

- Slicing, indexing, and formatting strings.
- Common string methods and escaping characters.

## List Operations:

- Creating, modifying, and iterating over lists.
- Using builtin list methods for data manipulation.

## Module 6: PCEP Certification Exam Preparation

## Learning Objectives:

- Review key concepts covered in the course for the certification exam.
- Gain practical tips for successfully passing the PCEP exam.

## Topics Covered

## Exam Strategy and Review:

- Overview of PCEP exam structure and question types
- Common pitfalls and important focus areas for the exam

## Practice Exam:

- Simulated exam environment to test your understanding.
- Review of practice exam results and targeted feedback.