



3 Months Certification Course

Syllabus 2026

PYTHON Programming

Prepared By:
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This Python Syllabus is designed to provide complete practical knowledge of programming tools and strategies. Students will learn how to write code and logics for the standalone applications and build successful career in programming.

PROGRAM IS BEST SUITED FOR



Entrepreneurs



College Students



Marketing Professionals



Job Seekers

WHY YOU SHOULD LEARN PYTHON PROGRAMMING

You should learn Python programming because it is a **versatile, easy-to-learn** language with **high demand in the job market** across fields like AI, data science, and web development.

1. **Beginner-Friendly Syntax:** Python's design philosophy emphasizes readability, using a simple, clean syntax that is often compared to plain English.
2. **Highly Versatile and General-Purpose:** Python can be used for a wide variety of applications.
3. **Dominance in AI, Machine Learning, and Data Science:** Python is the de facto language in these rapidly growing fields.
4. **Strong Career Opportunities & High Salaries:** Due to its widespread use by tech giants like Google, Netflix, and Instagram, Python skills are in high demand. Proficiency in Python can lead to well-paying roles such as data scientist, software developer, and machine learning engineer.
5. **Automation and Scripting Capabilities:** Python is excellent for writing scripts to automate repetitive tasks, such as organizing files, web scraping, or sending emails. This ability to boost efficiency is valuable across many professions, not just software engineering.
6. **Cross-Platform Compatibility:** Python is an open-source language that runs seamlessly across different operating systems, including Windows, macOS, and Linux, without requiring significant code changes.

By learning Cyber Security, you gain the ability to safe and secure from online frauds and cyber crimes, and will get functional digital experiences.

Python is an interpreted, object-oriented programming language. Python is a high-level programming language. It is a dynamically typed language. It's high-level built-in data structures, combined with dynamic typing and dynamic binding. It is very useful for Rapid Application Development.

Module 1: Introduction to Python

- What is Python and history of Python?
- Install Python and Environment Setup
- First Python Program
- Python Identifiers, Keywords and Indentation
- Comments and document interlude in Python
- Command line arguments Getting User Input
- Python Data Types
- What are variables?
- Number and Maths

Module 2: Control Statements

- if-else and if-elif-else
- while loop and for loop
- break and continue
- assert, pass and return
- Lists in Python

Module 3: Python Input and Output

- Reading and writing text files
- writing Text Files
- Appending to Files and Challenge
- Writing Binary Files Manually
- Using Pickle to Write Binary Files
- Python user defined functions
- Loops and statement in Python

Module 4: Python Object Oriented

- Overview of OOP
- The self variable and Types Of Variables
- Constructor and Namespaces
- Accessing attributes
- Built-In Class Attributes
- Abstract classes and Interfaces
- Abstract Methods and Abstract class
- Abstract classes and Interfaces

Module 5: Exceptions

- Errors in Python
- Compile-Time Errors
- Runtime Errors
- Logical Errors
- What is Exception?
- Handling an exception
- try....except...else
- try-finally clause
- Argument of an Exception

Module 6: Using Databases in Python

- Python MySQL Database Access
- Install the MySQLdb and other Packages



Certificate

Upon completing this Certification course, you will receive a program completion certificate from Tech Engineer, Mohali (Pb). This certificate will testify to your skills as an expert in the completed course.

Contact Us

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