

Python Programming

Course Duration: 4 months

Qualification: open to all individuals interested in learning Python.

Eligibility:

No prior programming experience required; open to all individuals interested in learning Python.

Medium of Instruction:

English

Duration:

4 months

Program Details:

The program has been divided into 4 modules. Consequently, there will be examinations at every end of module. For beginners it is first important to build command over programming concepts. In this course our goal is to help you to be confident with the coding fundamentals.

Curriculum: View Specialization:

Module 1: Introduction to Python

- What is Python? Introduction and Uses
- Setting Up Your Python Environment
- Python Syntax: Variables, Data Types, and Basic Operations
- Writing Your First Python Script
- Practical Exercise: Simple Python Programs

Module 2: Control Flow and Data Structures

- Conditional Statements: if, elif, and else
- Loops: - for loop, while loop and nested loop
- Local conditions: - and, or, not
- Loop control: - break, continue, pass

- Lists, Tuples, Dictionaries and set
- Practical Exercise: Working with Data Structures and Control Flow

Module 3: Functions, Modules, and Error Handling

- Understanding Functions
- Creating and calling Functions using def
- Parameters & Return Values
- Default & Keyword Arguments
- Lambda Functions (Basics)
- Modules and Packages
- Importing Built-in Modules (math, random, datetime)
- Creating Your Own Module
- Error Handling: try, except, else, finally
- Practical Exercise:

Calculator using Functions
Error-handled Programs

