



Python Programming Course Syllabus

Introduction to Python

- Overview of Python
- Installing Python and Setting up Development Environment
- Basic Syntax and Variables
- Data Types and Operators
- Control Structures (Loops, Conditionals)

Functions and Modules

- Functions and Scope
- Built-in Functions and Libraries
- Creating Custom Functions
- Importing and Using Modules

Data Structures in Python

- Lists, Tuples, and Dictionaries
- Sets
- Strings and String Manipulation
- Working with Files (Reading and Writing)

Object-Oriented Programming (OOP)

- Classes and Objects
- Inheritance, Encapsulation, and Polymorphism
- Abstraction and Interfaces
- Exception Handling and Error Management

Data Analysis and Visualization

- NumPy for Numerical Computing
- Pandas for Data Manipulation
- Data Cleaning and Preprocessing
- Data Visualization with Matplotlib and Seaborn

Final Course Outcomes

- Hands on experience with real time projects
- Industry Recognized Certificate
- Placement Assistance