

Python Programming (Job-Ready Course)

SECTION 1: Python Foundations

What you will learn:

- Python installation & setup
- Syntax, variables & data types
- Input/output
- Operators
- VS Code & Jupyter

Minor Projects:

- Calculator
- Number Guessing

Major Projects:

- Python Development Environment

SECTION 2: Control Flow & Functions

What you will learn:

- Conditions
- Loops
- Functions
- Scope
- Modules

Minor Projects:

- ATM Program
- Pattern Generator

Major Projects:

- Console Utility Suite

SECTION 3: Data Structures

What you will learn:

- Lists
- Tuples
- Sets

- Dictionaries
- Strings

Minor Projects:

- Contact Book
- Inventory

Major Projects:

- Student Management System

SECTION 4: Object-Oriented Programming

What you will learn:

- Classes
- Objects
- Inheritance
- Polymorphism
- Encapsulation

Minor Projects:

- Bank Account
- Library

Major Projects:

- OOP Management App

SECTION 5: File Handling

What you will learn:

- Files
- CSV
- JSON
- Exceptions
- Logging

Minor Projects:

- CSV Analyzer
- Notes App

Major Projects:

- File Management System

SECTION 6: Libraries & Automation

What you will learn:

- Modules
- Requests
- Web scraping
- Automation
- Email basics

Minor Projects:

- Web Scraper
- File Organizer

Major Projects:

- Automation Toolkit

SECTION 7: Database & GUI

What you will learn:

- SQLite
- CRUD
- Tkinter
- Forms
- Validation

Minor Projects:

- To-do App
- Employee DB

Major Projects:

- Desktop App

SECTION 8: APIs & Projects

What you will learn:

- REST APIs
- JSON
- Git/GitHub

- Testing
- Deployment

Minor Projects:

- Weather App
- Currency App

Major Projects:

- API Integrated Project

SECTION 9: Career & Capstone

What you will learn:

- Problem solving
- Portfolio
- Resume
- Interview prep
- Freelancing

Minor Projects:

- Coding Challenges
- Portfolio

Major Projects:

- End-to-End Python Project

Technologies & Tools Covered

- Python
- VS Code
- Jupyter Notebook
- Git & GitHub
- SQLite
- Tkinter
- Requests
- BeautifulSoup
- CSV
- JSON