

Fruto Academy Python Developer Course Syllabus

Course Overview:

Welcome to the Fruto Academy Python Developer Course! This comprehensive program will equip you with the skills and knowledge needed to become a proficient Python developer. Throughout this course, you'll learn the fundamentals of programming, Python language features, and how to build various types of applications using Python.

Course Duration: 12 weeks

Week 1-2: Introduction to Programming and Python

- Understanding programming concepts and paradigms
- Introduction to the Python programming language
- Setting up Python environment and IDE

Week 3-4: Python Basics

- Variables, data types, and basic operators
- Control structures: conditionals and loops
- Functions and scope
- Handling exceptions and errors

Week 5-6: Data Structures and Algorithms

- Lists, tuples, sets, and dictionaries
- Working with strings and text processing
- Introduction to algorithm design and analysis
- Sorting and searching algorithms

Week 7-8: Object-Oriented Programming (OOP)

- OOP principles: encapsulation, inheritance, and polymorphism
- Creating and using classes and objects
- Designing and implementing class hierarchies

Week 9-10: File Handling and Modules

- Reading from and writing to files
- Creating and using Python modules
- Working with external libraries and packages using pip

Week 11: Web Development with Python (Flask)

- Introduction to web development concepts
- Setting up a web application using Flask
- Handling routes, templates, and forms
- Building a basic web application

Week 12: Final Project and Deployment

- Applying Python skills to a real-world project
- Deploying Python applications to web servers
- Final project: Build and deploy a complete web application using Flask

Assessment and Certification:

- Weekly coding assignments: 40%
- Midterm project (Python application development): 20%
- Final project: 30%
- Participation and quizzes: 10%

Recommended Resources:

- "Python Crash Course" by Eric Matthes
- "Flask Web Development" by Miguel Grinberg
- Online tutorials and documentation for relevant Python libraries

Note: This syllabus is subject to adjustment based on instructor discretion and the evolving landscape of Python development.

For inquiries, contact us at info@frutoacademy.com or visit www.frutoacademy.com.