

# SYLLABUS

## 100 DAYS OF PYTHON



Learn Earn & Fun

[www.learnearnfun.com](http://www.learnearnfun.com)

## BEGINNER PYTHON

Local Development Environment Setup

PyCharm Tips and Tricks

Print, Input, Len Function

Variables

String Manipulation

Variable Naming Rules

Mathematical Operations

Data Types

Converting types

Conditionals IF/ELIF/ELSE

Logical Operators

Randomization

Error Handling

Functions

For Loops

Code blocks and Indentation

While Loops

Flowchart Programming

Positional and Keyword Arguments

Python Dictionaries and Lists

Nested Collections

Returning Functions

Return vs. Print

Doc Strings vs. Comments

Scope and Local/Global Variables

Debugging Techniques

## INTERMEDIATE PYTHON

Python Object Oriented Programming

Creating Classes in Python

Using External Python Modules/Import

Getting / Setting Attributes

Python Methods

Class Initialisers

Module Aliasing

Optional, Required and Default Parameters

Event Listeners

Python Instances and State

Python Turtle

Game Development with Python and OOP

Python Inheritance

Python Slice Function

File I/O Reading and Writing to Local Files

File Directories

Reading and Writing to CSV Introduction

to the Pandas Framework List

Comprehensions

Dictionary Comprehensions

Packing and Unpacking Functions

Creating Desktop GUI Apps with Tkinter

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Strongly Dynamic Typing  
Error Handling and Exceptions  
Try / Except/ Raise  
Working with JSONs  
Local Persistence  
Sending Email with Python and SMTP  
Working with date and time  
Hosting Python Code Online with PythonAnywhere

## INTERMEDIATE +

APIs  
Making HTTP Requests with the Requests module  
Sending Parameters with the Request  
APIs with Authentication  
Sending SMS with Python  
Web Scraping with Beautiful Soup  
Browser Automation with Selenium Web Driver  
Automating Tinder  
Automating Twitter  
Automating LinkedIn  
Automating Instagram  
Web Development with Flask  
Command Line  
Python Decorators  
Templating with Jinja 2  
WTForms  
Web Development with Django

## ADVANCED PYTHON

Build Your Own REST API with Python  
Build Your Own Blog  
Databases with SQLite  
Dataframe Inspection  
Sorting Values in Dataframes  
Arithmetic Operations with Pandas  
Using Jupyter Notebook  
HTML Markdown  
Creating NumPy ND Arrays  
Array Slicing and Subsetting  
Matrix Multiplication  
Bitwise and Operators in Pandas

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## PROFESSIONAL PORTFOLIO BUILDING PROJECTS

Text to Morse Code Converter

Portfolio Website

Tic Tac Toe Game

Typing Speed Test

Todo List Website

Image Color Palette Generator

Automating the Google Dinosaur Game

Space Invaders Game

Custom API Driven Website



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