

Python Course Syllabus

Our Python course syllabus is framed by our Industry experts. This Python and Django course content covers all the latest topics from basics to advanced level like Python for Machine Learning, AI, Web development and Data Science.

Module 1: An Introduction to Python

- What can Python do?
- Why Python?
- Good to know
- Python Syntax compared to other programming languages
- Python Install

Module 2: Beginning Python Basics

- The print statement
- Comments
- Python Data Structures & Data Types
- String Operations in Python
- Simple Input & Output
- Simple Output Formatting
- Operators in python

Module 3: Python Program Flow

- Indentation
- The If statement and its' related statement
- An example with if and it's related statement
- The while loop
- The for loop
- The range statement
- Break &Continue
- Assert
- Examples for looping

Module 4: Functions& Modules

- Create your own functions
 - Functions Parameters
 - Variable Arguments
 - Scope of a Function
 - Function Documentations
-
- Lambda Functions& map
 - n Exercise with functions

- Create a Module
- Standard Modules

Module 5: Exceptions Handling

- Errors
- Exception handling with try
- handling Multiple Exceptions
- Writing your own Exception

Module 6: File Handling

- File handling Modes
- Reading Files
- Writing& Appending to Files
- Handling File Exceptions
- The with statement

Module 7: Classes In Python

- New Style Classes
- Creating Classes
- Instance Methods
- Inheritance

- Polymorphism
- Exception Classes & Custom Exceptions

Module 8: Generators and iterators

- Iterators
- Generators
- The Functions any and all
- With Statement
- Data Compression

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Module 9: Data Structures

- List Comprehensions
- Nested List Comprehensions

- Dictionary Comprehensions
- Functions
- Default Parameters
- Variable Arguments
- Specialized Sorts

Module 10: Collections

- namedtuple()
- deque
- ChainMap
- Counter
- OrderedDict
- defaultdict
- UserDict
- UserList
- UserString

Module 11: Writing GUIs in Python (Tkinter)

- Introduction
- Components and Events
- An Example GUI
- The root Component

- Adding a Button
- Entry Widgets
- Text Widgets
- Check buttons

Module 12: Python SQL Database Access

- Introduction
- Installation
- DB Connection
- Creating DB Table
- INSERT, READ, UPDATE, DELETE operations
- COMMIT & ROLLBACK operation
- handling Errors

Module 13: Network Programming

- Introduction
- A Daytime Server
- Clients and Servers
- The Client Program

- The Server Program

Module 14: Date and Time

- sleep
- Program execution time
- more methods on date/time

Module 15: Few more topics in-detailed

- Filter
- Map
- Reduce
- Decorators
- Frozen set
- Collections

Module 16: Regular Expression

- Split
- Working with special characters, date, emails
- Quantifiers
- Match and find all
- character sequence and substitute

- Search method

Module 17: Threads ESSENTIAL

- Class and threads
- Multi-threading
- Synchronization
- Treads Life cycle
- use cases

Module 18: Accessing API ESSENTIAL

- Introduction
- Facebook Messenger
- Openweather

Module 19: DJANGO

- Django Overview

- Django Installation
- Creating a Project
- Usage of Project in depth Discussion
- Creating an Application
- Understanding Folder Structure
- Creating a Hello World Page
- Database and Views
- Static Files and Forms
- API and Security

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