

Python Syllabus

Fundamentals of Programming

- Flowcharts
- Variables and Data types
- Conditional Statements
- Loops
- Patterns
- Methods
- Arrays
- 2D Arrays
- Strings

Object Oriented Programming

- Basics of OOPS
- Advance concepts of OOPS
- Exception Handling

Data Structure and Algorithms

- Time Complexity and Space Complexity
- Recursion
- Search and Sorting Algorithms with Arrays
- Linked List
- Stacks
- Queues
- Trees

- Generic Trees
- Binary Trees
- Binary Search Trees

Advanced Data Structures

- Priority Queues
- Hashmaps
- Tries
- Graphs

Dynamic Programming

- Introduction to Dynamic Programming
- Applications of DP

Advance Python

- Lambda Expressions
- Generators and Iterators
- Closures
- Decorators

Python Libraries

- Numpy
- Pandas
- Matplotlib
- Open CV

- Pygame
- Tkinter
- Tensorflow

Backend Development with Python

- Introduction to Django
- Introduction to Flask