Syllabus

Module 1 - Python Basics

- Your first program
- Types
- Expressions and Variables
- String Operations

Module 2 - Python Data Structures

- Lists and Tuples
- Sets
- Dictionaries

Module 3 - Python Programming Fundamentals

- Conditions and Branching
- Loops
- Functions
- Objects and Classes

Module 4 - Working with Data in Python

- Reading files with open
- Writing files with open
- Loading data with Pandas
- Working with and Saving data with Pandas

Module 5 - Working with Numpy Arrays & Simple APIs

- Numpy 1D Arrays
- Numpy 2D Arrays
- Simple APIs
- API Setup

Reference

1. **Lutz, Mark. Learning Python: Powerful Object-Oriented Programming. " O'Reilly Media, Inc.", 2013.**
2. **Ana Bell, Eric Grimson and John Guttag. Introduction to Computer Science and Programming in Python, MIT Open Course Ware, MIT 2017**