

# Python Syllabus

## Basics Python

### Day 1

#### Introduction

- ✓ History
- ✓ Features
- ✓ Setting up path
- ✓ Working with Python
- ✓ Basic Syntax
- ✓ Variable and Data Types
- ✓ Operator

#### Conditional Statements

- ✓ If
- ✓ If- else
- ✓ Nested if-else

#### Looping

- ✓ For
- ✓ While
- ✓ Nested loops

#### Control Statements

- ✓ Break
- ✓ Continue
- ✓ Pass

#### String Manipulation

- ✓ Accessing Strings
- ✓ Basic Operations
- ✓ String slices
- ✓ Function and Methods

#### Lists

- ✓ Introduction
- ✓ Accessing list
- ✓ Operations
- ✓ Working with lists
- ✓ Function and Methods

## Tuple

- ✓ Introduction
- ✓ Accessing tuples
- ✓ Operations
- ✓ Working
- ✓ Functions and Methods

# Day 2

## Dictionaries

- ✓ Introduction
- ✓ Accessing values in dictionaries
- ✓ Working with dictionaries
- ✓ Properties
- ✓ Functions

## Functions

- ✓ Defining a function
- ✓ Calling a function
- ✓ Types of functions
- ✓ Function Arguments
- ✓ Anonymous functions
- ✓ Global and local variables

## Modules

- ✓ Importing module
- ✓ Math module
- ✓ Random module
- ✓ Packages
- ✓ Composition

## Input-Output

- ✓ Printing on screen
- ✓ Reading data from keyboard
- ✓ Opening and closing file
- ✓ Reading and writing files (in specific Excel file handling)
- ✓ Functions

## Python JSON

- ✓ What is JSON
- ✓ Operations / parsing JSON
- ✓ Converting JSON to Python
- ✓ Converting Python to JSON

## Exception Handling

- ✓ Exception
- ✓ Exception Handling
- ✓ Except clause
- ✓ Try ? finally clause
- ✓ User Defined Exceptions

# Advance Python

## Day 3

### OOPs concept

- ✓ Class and object
- ✓ Attributes
- ✓ Inheritance
- ✓ Overloading
- ✓ Overriding
- ✓ Data hiding

### Regular expressions

- ✓ Match function
- ✓ Search function
- ✓ Matching VS Searching
- ✓ Modifiers

- ✓ Patterns

## Day 4

Python for Automation Testing

Unittesting

Testcases

PyTest

Python for Selenium Testing

**Optional for Certain Project**

- ✓ Net-SNMP via Python
- ✓ Modbus via Python
- ✓ BACnet via Python
- ✓ Sending /Receiving emails via Python

## Day 5

**Python for Selenium Testing ( Cont. )**

Networking (optional - if time permits)

- ✓ Socket
- ✓ Socket Module
- ✓ Methods
- ✓ Client and server
- ✓ Internet modules

Database (optional - if time permits)

- ✓ Introduction
- ✓ Connections
- ✓ Executing queries
- ✓ Transactions
- ✓ Handling error