

# **Introduction to Python and Its Libraries**

**Modality: On Demand**

**Duration: 15 Hours**

## **About this Course:**

In this course students will gain the knowledge and skills needed to implement the basics of python data structures with an intuitive understanding of every library required for machine learning. python is one of the best programming choices for data science, machine learning, and deep learning. Python presents a wide array of choices for the completion of each task. It is highly accessible and one of the best ways to get started with programming because it is simple to use as well as quite easy to learn. It also has a great community with constant updates and upgrades. At the writing of this article, the most recent version of python is 3.8

## **Course Objectives:**

After completing this course, students will be able to:

- General Introduction to the Python Language
- How to display data (histograms, scatter plots, line plots etc.)
- Matrix multiplication, Numpy functions, mathematics
- How to manage & edit dataframes
- Pandas
- Numpy
- Matplotlib

## **Audience:**

- Students should have at least one year of hands-on experience with Python programming

## **Prerequisites:**

Before attending this course, students must have knowledge of:

- Introduction to Python for Absolute beginner

## **Course Outline:**

This Course Includes:

- Course Introduction
- Google Colab Overview
- Exercises
- Lecture 1: Introduction to Python: Syntax

- Lecture 2: Pythonic Functions and Good Practices
- Lecture 3: Linear Algebra: Numpy
- Lecture 4: Plotting: Matplotlib and Seaborn
- Lecture 5: Dataframes: Pandas