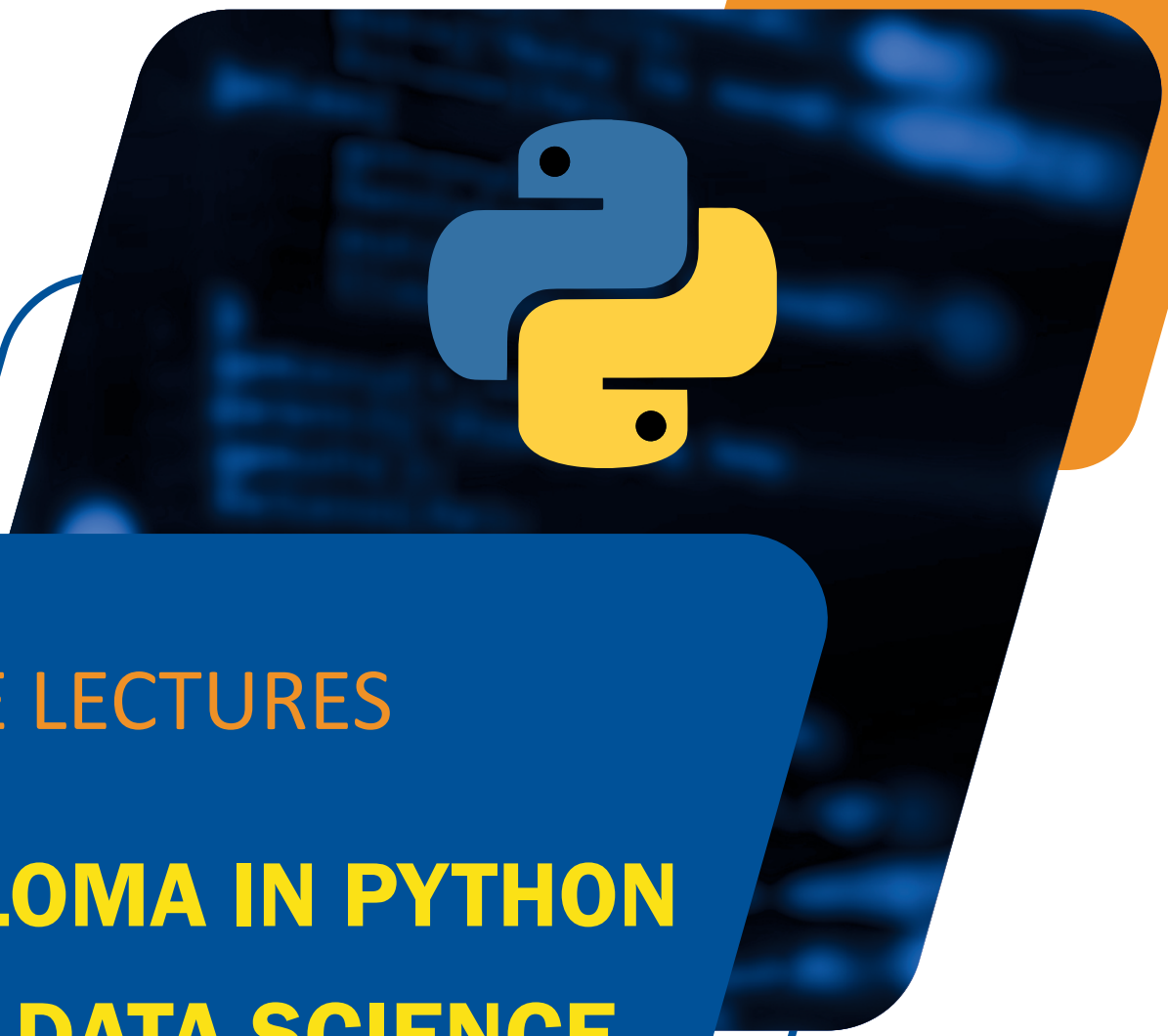
AISECT™ FUTURE SKILLS ACADEMY
Education. Empowerment. Enterprise.

AISECT LEARN
Better Education. Better Careers.



LIVE LECTURES

# DIPLOMA IN PYTHON FOR DATA SCIENCE

Live Course (Live Lectures)

www.courses.aisectlearn.com

## COURSE OVERVIEW

Get acquainted with the fundamental Python tools used for preparing the data for analysis and familiarize yourself with data science tools for processing the data, and using data science techniques to create meaningful insights and predictions.

## COURSE OBJECTIVE

Expand your knowledge of Data Manipulation and Data Analysis Tools, Python Statistics, Python Pandas Data Visualization- the key technologies in data science using Python essentials.

## SKILLS YOU WILL LEARN

You will gain the ability to inculcate Python data science libraries to analyze data, create advanced codes for the same & creating visualization using Python.

## COURSE SKILL SET

- Introduction to Data Science
- Mathematical Foundation for Data Science
- Story Telling With Data
- Python Essentials
- Data Analysis and manipulation tools
- Basic Statistics for Data Science
- Python Statistics
- Python Pandas
- Python Pandas

## PROGRAM HIGHLIGHTS

- Instructor- Dr. Priti Maheshwary | / Dr. Pooja Bijlani
- Duration- 1 Year
- Eligibility- Any graduate with a Science stream
- No. of Modules - 62
- Placement training- Yes
- Language-English
- Shareable certificate- Yes
- Webinar- Yes

## PROGRAM SYLLABUS

Paper 1

### INTRODUCTION TO DATA SCIENCE

Chapter 1 - Introduction To Data
Chapter 2 - Real Life examples with applications
Chapter 3 - Data Scientist Job Roles and Responsibilities
Chapter 4 - The most promising Job of the 21st Century
Chapter 5 - Data Science vs AI vs Machine Learning

**Paper 1- Live Lecture 1**

Internal Assessment

Paper 2

### MATHEMATICAL FOUNDATION FOR DATA SCIENCE

Chapter 1 - Vectors
Chapter 2 - Matrices
Chapter 3 - Linear Mapping
Chapter 4 - Basic Linear Algebra
Chapter 5 - Eigen Values and Eigenvectors
Chapter 6 -Calculus

**Paper 2- Live Lecture 2**

Internal Assessment

Paper 3

### STORY TELLING WITH DATA

Chapter 1 - Storytelling Overview
Chapter 2 - How to create stories ?
Chapter 3 - Types of Data and Suitable Charts
Chapter 4 - Stories During the steps of Predictive Modelling
Chapter 5 - Best Practices of Storytelling
Chapter 6 - Git and GitHub

Internal Assessment

Paper 4

### PYTHON ESSENTIALS

Chapter 1 - Installation of Anaconda Navigator
Chapter 2 - Jupyter Notebook Interface
Chapter 3 - How to Open, save and Rename a file
Chapter 4 - Variables and Data Types
Chapter 5 - Python Strings
Chapter 6 - Loops
Chapter 7 - Python Functions (Built-in, Lambda, User defined functions)
Chapter 8 - Lists
Chapter 9 - Tuples
Chapter 10 - Sets
Chapter 11 - Dictionaries

Live Lecture

Paper 5

## DATA ANALYSIS AND MANIPULATION TOOLS

Chapter 1 - Numpy Arrays in Python
Chapter 2 - Three Dimensional Arrays Indexing and Slicing
Chapter 3 - Matrices
Chapter 4 - Pandas in Python
Chapter 5 - Importing CSV,EXCEL Files
Chapter 6 - Exporting CSV, EXCEL Files
Internal Assessment
Live Lecture

Paper 6

## BASIC STATISTICS FOR DATA SCIENCE

Chapter 1 - Basic probability theory
Chapter 2 - Random variables
Chapter 3 - Probability distributions
Chapter 4 - Bayes Theorem
Chapter 5 - Sampling
Chapter 6 - Sampling Distributions

Paper 7

## PYTHON STATISTICS

Chapter 1 - **Chapters**Applying statistical functions on Matrices
Chapter 2 - Linear Algebra with Numpy
Chapter 3 - Numpy Random Numbers
Chapter 4 - Probability distributions using NumPy
Chapter 5 - Normality test with SciPy
Internal Assessment
Live Lecture

Paper 8

## PYTHON PANDAS

Chapter 1 - **Chapters**
Chapter 2 - Pandas Data Frames
Chapter 3 - Querying Data in Pandas
Chapter 4 - Data Aggregation with Pandas
Chapter 5 - Concatenating and appending Data Frames
Chapter 6 - Joining Data Frames
Chapter 7 - Statistics with Pandas Data Frames
Chapter 8 -Handling Missing Data
Chapter 9 -Pivot Tables
Plotting In Pandas
Live Lecture

AISECT LEARN
Better Education. Better Careers.

AISECT™ FUTURE SKILLS ACADEMY
Education. Empowerment. Enterprise.

Sign up for

**Webinars, Free courses and Paid Courses**

starting from ₹**499/-** onwards only

# Contact Us

9111177800 | learn@aisectlearn.com | www.courses.aisectlearn.com