



About Department

The Department of Computer Science was established in the year 1984 with the objective of imparting quality education in the field of Computer Science. The Department has modern facilities for teaching, learning and research. The department has dedicated teaching and non-teaching staff who work tirelessly to achieve excellence in both teaching and research.

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Why study Excel and Python ?

Python and excel are widely used in corporate sector for performing data analysis. Python is one of the best languages used by data scientist for various data science projects/application. It provides great functionality to deal with mathematics, statistics and scientific function.

Excel is also a very powerful data analysis tool used extensively by businesses for decision making. This course is designed to make students understand advance features available in Excel and Python for data analysis.

Registration Details



[Click here to Register](#)

Last date for registration : 07.03. 2024

- Certificates will be issued to students who successfully complete the course.
- The participants must have a desktop or laptop with good internet connection
- The course is open for students from all streams who have studied mathematics till class XII
- No registration fee.



SHIVAJI COLLEGE

UNIVERSITY OF DELHI

NAAC ACCREDITED 'A' GRADE

DATA ANALYSIS

ADD-ON COURSE ON EXCEL AND PYTHON FOR DATA ANALYSIS AND VISUALIZATION

Conducted by
**Department of Computer
Science**

March-April 2024



Course Content

Module I

Introduction to Excel
Introduction to spreadsheets, basic spreadsheet operations and functions. In this session, you will learn the how to prepare well-formatted reports using sort / filter operations and advanced formatting techniques.

Module II

Data Analysis in Excel – I
In this module you will learn to use some powerful Excel techniques used to understand and manipulate data. Excel offers a wide range of charts like line charts, bar charts, pie charts, scatter plots and boxplots..

Module III

Data Analysis in Excel – II
Handling of missing data, Data cleaning and Transformation using Excel. Use Pivot Tables to analyse data Use VLOOKUP to combine data from multiple sources

Module IV

Introduction to Pandas, NumPy, SciPy:
Quick review of Pandas DataFrames, Numpy multidimensional arrays, and SciPy libraries to work with different datasets.

Module V

Import and Export of Data:
Installing, loading and using packages for importing and exporting data in Python

Module VI

IData Preprocessing and Transformation: Handling of missing data, Data cleaning and Transformation in Python

Module VII

IData Exploration
Exploring data using statistical methods. Building contingency table. Basics of grouping data, merge, and pivot tables. Finding correlations among numeric fields.

Module VIII

IData Visualization
Visualizing data with the help of matplotlib and seaborn library. Scatter Plot, line plot, displot, histogram, boxplot, heatmaps, barplot, countplot ,word clouds, exporting plots as images. Creating Pairplots and jointplots

Patron

Prof. Virender Bhardwaj

Convenor

Ms. Anshu Chopra

Co-Convenor

Ms. Preeti Sharma

Coordinator

Mr. Rakesh Yadav

Course Coordinator

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