



Department of Computer BAKLIWAL FOUNDATION

College of Arts, Commerce & Science, Vashi

[Affiliated to KKS University & Approved by Govt. of Maharashtra & AICTE, Delhi]



CERTIFICATE COURSE - I

Course Name: DataSmart: Essentials of Data Analysis [Basic]

Offered by: Department of BCA

Conducted by: DataNova Solutions

Duration: 30 Hours

Modes: Hybrid (Offline/Online)



Course Introduction:

In today's data-driven world, the ability to understand, interpret, and analyze data is not just a technical skill—it's a superpower. The DataSmart: Essentials of Data Analysis [Basic] course is a 30-hour value-added program designed exclusively for Second Year (SY) and Third Year (TY) BCA students who are ready to elevate their analytical thinking and gain hands-on exposure to the fundamentals of data analysis.

This course serves as a gateway into the dynamic realm of data science, empowering students with the essential tools and techniques to make sense of raw data, uncover patterns, and draw meaningful insights. Whether you're aiming for a career in IT, business analytics, or simply want to strengthen your problem-solving skills, DataSmart lays the foundation for confident, data-literate decision-making.



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What You'll Learn:

- ✚ Basics of data collection, cleaning, and preprocessing
- ✚ Introduction to statistical analysis and visualization
- ✚ Working with spreadsheets and data tools
- ✚ Real-world case studies and mini-projects
- ✚ Ethical considerations in data handling



Why Take This Course?

- ✚ Build a strong analytical mindset
- ✚ Enhance your resume with practical skills
- ✚ Prepare for advanced data science and machine learning courses
- ✚ Gain a competitive edge in internships and job placements

Course Objectives:

- Understand the principles of data analysis and its applications.
- Collect, clean, and manipulate data effectively.
- Explore and visualize data to derive meaningful insights .
- Apply basic statistical analysis techniques.
- Work with real-world datasets using Python and essential libraries.

Course Components:

- Theory: 10 Hours
- Hands-on Practical Session: 18 Hours



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- Assessment & Project work: 2 Hours

Syllabus:

Sr No.	Module Name	Hours
Module 1	Introduction to Data Analysis	3
Module 2	Python for Data Analysis-Refresher	3
Module 3	Data Collection and importing	3
Module 4	Data Cleaning and importing	4
Module 5	Exploratory Data Analysis	5
Module 6	Data Visualization	5
Module 7	Introduction to Statistical Analysis	4
Module 8	Mini Project and Presentation	3

Course outcomes:

- Gain practical skills in data analysis and visualization.
- Enhance career prospects in data-driven industries.
- Learn from industry experts at DataNova Solutions.



Assessment

Component	Weight
Weekly Lab Assignments	30%
Mini Case Study Analysis	10%
Capstone Project	40%
Quiz / Final Test	20%

Certificate of Excellence for students scoring above **75%**

Certificate of Completion for students scoring **60%–74%**