

Bhogawati Mahavidyalaya, Kurukali

Department of Mathematics and Statistics

Value-Added Course
Data Analysis Using Spreadsheet and
Statistical Software

Duration: 30 Hours
Credits: 2 Credits
Academic Year: 2026–27
Target Group: Undergraduate Students

Submitted to:
Internal Quality Assurance Cell (IQAC)

Course Coordinator
Mr. Sagar Patil

Approval Letter

Ref. No.: VAC/2026–27/01

Date: _____

This is to certify that the Value-Added Course entitled “**Data Analysis Using Spreadsheet and Statistical Software**” comprising **30 hours and 2 credits** has been approved by the College Academic Committee and IQAC for implementation during the academic year 2026–27.

The course will be offered by the Department of Mathematics and Statistics for undergraduate students with the objective of developing practical skills in data management, statistical analysis, and data visualization.

Course Coordinator

Head, Department of
Mathematics and Statistics

Principal

Course Syllabus

Course Title: Data Analysis Using Spreadsheet and Statistical Software

Duration: 30 Hours

Credits: 2

Eligibility: Undergraduate Students

Course Objectives

1. To introduce students to the fundamentals of data analysis.
2. To develop skills in data collection, cleaning, and preparation.
3. To enable students to perform descriptive statistical analysis.
4. To create meaningful data visualizations.
5. To interpret results and communicate findings effectively.

Course Outcomes

After successful completion of the course, students will be able to:

- CO1. Understand the data analysis workflow and types of data.
- CO2. Organize, clean, and prepare datasets for analysis.
- CO3. Apply descriptive statistical techniques to summarize data.
- CO4. Create charts, dashboards, and visual representations.
- CO5. Interpret analytical results and prepare concise reports.

Course Content

Unit	Topics	Hours
I	Introduction to data analysis, data types, data sources, ethics, data lifecycle	4
II	Data collection, coding, data cleaning, handling missing values, data transformation	6
III	Descriptive statistics, frequency distributions, measures of central tendency and dispersion	6
IV	Data visualization: bar charts, pie charts, histograms, box plots, scatter plots, dashboards	6
V	Introduction to spreadsheet and statistical software (Excel, R, PSPP, Jamovi)	4
VI	Mini project, report writing and presentation	4

Assessment Scheme

Component	Weightage
Attendance and Participation	10%
Practical Assignments	30%
Quiz / Continuous Assessment	20%
Mini Project and Presentation	40%

Course Brochure / Circular

Bhogawati Mahavidyalaya, Kurukali

Department of Mathematics and Statistics

Value-Added Course Announcement

Course Name: Data Analysis Using Spreadsheet and Statistical Software

Duration: 30 Hours

Credits: 2

Eligibility: All Undergraduate Students

Key Highlights

- Hands-on training using real datasets
- Learn data analysis using Excel and statistical software
- Develop data visualization and reporting skills
- Mini project and certificate on successful completion

Registration Dates: _____

Course Start Date: _____

Course Coordinator: Mr. Sagar Patil

4. Timetable / Schedule

Week	Topics Covered	Hours	Faculty
1	Introduction to Data Analysis	3	Mr. Sagar Patil
2	Data Collection and Cleaning	3	Mr. Sagar Patil
3	Data Preparation Techniques	3	Mr. Sagar Patil
4	Descriptive Statistics	3	Mr. Sagar Patil
5	Data Visualization	3	Mr. Sagar Patil
6	Advanced Visualization	3	Mr. Sagar Patil
7	Excel for Data Analysis	3	Mr. Sagar Patil
8	Statistical Software Basics	3	Mr. Sagar Patil
9	Mini Project Work	3	Mr. Sagar Patil
10	Project Presentation and Evaluation	3	Mr. Sagar Patil

CERTIFICATE OF COMPLETION

This is to certify that

has successfully completed the Value-Added Course entitled

“Data Analysis Using Spreadsheet and Statistical Software”

conducted by the Department of Mathematics and Statistics, Bhogawati Mahavidyalaya, Kurukali during the academic year 2026–27.

The course comprised **30 hours** carrying **2 credits**.

Course Coordinator

Head of Department

Principal

Course Completion Report

Course Title: Data Analysis Using Spreadsheet and Statistical Software

Duration: 30 Hours

Credits: 2

Coordinator: Mr. Sagar Patil

Number of Students Enrolled: _____

Number of Students Completed: _____

Course Duration: From _____ to _____

Summary of Activities

- Conducted interactive lectures and practical sessions.
- Provided hands-on experience with spreadsheet and statistical software.
- Assigned mini projects using real-world datasets.
- Evaluated students through assignments and presentations.

Outcomes Achieved

- Enhanced students' analytical and problem-solving skills.
- Improved data visualization and reporting abilities.
- Developed practical competency in statistical software.

Course Coordinator

Principal