



MAHARAJA AGRASEN INSTITUTE OF MANAGEMENT STUDIES

(A unit of Maharaja Agrasen Technical Education Society)

Affiliated to GGSIP University; Recognized u/s 2(f) of UGC Recognized by Bar Council of India; ISO

9001: 2015 Certified Institution Maharaja Agrasen

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DEPARTMENT OF BUSINESS ADMINISTRATION

REPORT

Value-Added / Skill Enhancement Certificate Course

“Hands-on Research Methods: Excel, Jamovi, and AI for Data Analysis”

September 2025 – November 2025 | Academic Year 2025–26

Organizing Unit	Department of Business Administration
Head of the Institution	Prof. (Dr.) Rajni Malhotra Dhingra
Head of the Department	Dr. Manoj Verma
Students Beneficiary	28
Conveners	Dr. Bharti Chaudhary, Dr. Shilpee Aggarwal, Dr. Anitha Gopal
Dates	30 September 2025 – November 2025
Days & Time / Duration	Monday, Wednesday and Friday; scheduled sessions at 2:30 PM 31.5 Hours

Introduction

The Department of Business Administration, Maharaja Agrasen Institute of Management Studies (MAIMS), in collaboration with IMS PROSCHOOL and under the aegis of IQAC, organized the Value-

Added / Skill Enhancement Certificate Course titled “Hands-on Research Methods: Excel, Jamovi, and AI for Data Analysis” during September–November 2025. The course was designed to provide students with practical exposure to research methodology, data handling, statistical analysis, literature review, research writing and contemporary AI-enabled research practices.

The initiative was structured to bridge the gap between theoretical understanding of research methods and the practical skills required to work with data. The course focused on developing students’ ability to manage datasets, maintain data integrity, undertake basic data cleaning and transformation, generate visualizations, and understand the role of data analysts in deriving insights and supporting informed organizational decisions.

Objectives of the Course

- Understanding how to manage datasets: to explore and manage large datasets generated and used in the modern world.
- Understanding approaches to data integrity: to study approaches used to store, retrieve and manage data, including query techniques, data integrity and data quality.
- Visualization basics: to compute summary statistics, check data distributions, conduct basic data cleaning and transformation, and plot simple visualizations.
- Understanding the role of data analysts: to understand how raw data can be analysed for insights and trends and how analytical tools and techniques support organizational decision-making.

Course Rationale and Need

Contemporary research and business decision-making increasingly require the ability to work confidently with data. The course was conceptualized to provide students with an applied understanding of research and data analysis rather than limiting learning to theoretical descriptions of methods and techniques. By introducing Excel, Jamovi and AI-supported approaches alongside research methodology, the programme aimed to strengthen students’ practical analytical capabilities and their readiness for academic projects, research work and data-oriented professional roles.

Course Content and Session-wise Schedule

The official schedule contains Sessions 1–20 and covers research fundamentals, methodology, data collection, data types and Excel cleaning, descriptive analysis, statistical testing, literature review, Excel and Jamovi analysis, qualitative research, systematic literature review, research writing and research presentations. The course report specifies a total duration of 31.5 hours.

S. No.	Topic	Sessions	Resource Person	Date / Timing
1	Introduction of Research : Meaning and structure	Session 1	Dr. Shilpee Aggarwal	30th September
2	Research Methodology : Research Design & Sampling	Session 2 & 3 including Lab	Dr. Monica Sharma	8th October
3	Data Collection	Session 4	Ms. Anjali Goel	9th October
4	Types of Data- Nominal, ordinal, ratio & interval,Cleaning Data in Excel	Session 5 & 6 including Lab	Dr. Anu Bansal	14th October
5	Descriptive Analysis & Frequency distribution	Session 7 Lab	Dr. Sushila Gupta	16th October
6	Parametric Test	Session 8	Dr. Shallu Aggarwal	17th October
7	Non Parametric Test	Session 9	Dr. Sumedha Dutta	28th October
8	Literature Review & Referencing	Session 10	Dr. Anitha G	30th October
9	Data Analysis with Excel	Session 11 & 12	Dr. Manish Sharma	31st October
10	Data Analysis with Jamovi	Session 13 & 14	Dr. Bharti Chaudhary	3rd November
11	Qualitative Research	Session 15	Dr. Arpita Manchanda	4th November
12	Systematic Literature Review	Session 16	Dr.Shilpee Aggarwal	5th November
13	Writing the Research Paper	Session 17	Dr. Charu Mohla	6th November
14	Writing the Research Project	Session 18	Dr. Ria Sharma	7th November
15	Research Presentation	Session 19 & 20 Online Presentations	Dr. Bharti Chaudhary, Dr. Shilpee Aggarwal, Dr. Anitha G	11th November

Resource Persons

- Dr. Bharti Chaudhary, Associate Professor, Department of Business Administration

- Dr. Shilpee Aggarwal, Associate Professor, Department of Business Administration
- Dr. Anitha Gopal, Associate Professor, Department of Business Administration
- Dr. Sumedha Dutta, Associate Professor, Department of Business Administration
- Dr. Ria Sharma, Associate Professor, Department of Business Administration
- Dr. Charu Mohla, Associate Professor, Department of Business Administration
- Dr. Monica Sharma, Associate Professor, Department of Business Administration
- Dr. Sushila Gupta, Assistant Professor, Department of Business Administration
- Dr. Anu Bansal, Assistant Professor, Department of Business Administration
- Dr. Shallu Aggarwal, Assistant Professor, Department of Business Administration
- Dr. Arpita Manchanda, Assistant Professor, Department of Business Administration
- Dr. Manish Sharma, Assistant Professor, Department of Business Administration
- Ms. Anjali Goel, Assistant Professor, Department of Business Administration

The programme commenced with an introduction to research, focusing on the meaning and structure of research. This provided the foundation for subsequent sessions on research design, sampling and data collection. The students were introduced to the basic stages through which a research problem is translated into a systematic study.

The methodology component was followed by practical orientation towards data. Students were introduced to different types of data: nominal, ordinal, ratio and interval and to data cleaning in Excel. The course then progressed to descriptive analysis and frequency distributions, enabling students to summarize and examine datasets before applying statistical tests.

The statistical component included parametric and non-parametric tests. Dedicated sessions on data analysis with Excel and Jamovi provided practical exposure to software-based analysis. These sessions were intended to strengthen students' ability to work with data and interpret analytical outputs.

The programme also covered literature review and referencing, qualitative research and systematic literature review. These components broadened the course beyond statistical analysis and addressed important stages of academic research. Students were subsequently introduced to research-paper writing and research-project writing.

The final component comprised online research presentations. This enabled students to communicate their research work and findings in a structured academic format. The overall design therefore connected research conception, methodology, data handling, analysis, literature work, writing and presentation.

The course incorporated Artificial Intelligence as a contemporary support tool for research and data analysis. The emphasis was on developing familiarity with modern AI-enabled approaches while retaining the methodological foundations necessary for responsible academic and analytical work.

Participation

A total of 28 students are recorded as beneficiaries in the course report, and the supplied attendance workbook contains 28 participant entries.

The course documentation prescribes an assessment and certification framework based on participation and academic outputs. According to the course information, certification is linked to attendance, feedback and completion of the prescribed academic work.

- Attendance: minimum 80% attendance.
- Assignments: submission of solutions/answers of all assignments.
- Feedback: submission of weekly feedbacks.
- Research output: writing and presenting the research paper.
- Certificate of Merit: to be issued to the top five performers.
- Certificate of Completion: to be issued to participants who successfully complete the course.

Learning Outcomes

1. Understand the fundamentals of research.
2. Apply appropriate research methodology.
3. Organize and analyse data.
4. Conduct statistical testing.
5. Perform literature reviews and systematic reviews.
6. Leverage Artificial Intelligence tools.
7. Develop academic writing and presentation skills.

Academic and Employability Significance

- Develops practical data-handling and analytical skills that complement classroom learning.
- Provides exposure to Excel and Jamovi as tools for research and data analysis.
- Strengthens students' understanding of statistical testing and data interpretation.
- Builds competence in literature review, referencing and systematic review.
- Enhances academic writing, research-project development and presentation skills.

- Introduces AI-supported approaches relevant to contemporary research and analytical workflows.
- Supports students in developing skills that can strengthen academic profiles, resumes and readiness for data-oriented professional environments.

Programme Coordination and Institutional Support

The programme was headed by Dr. Manoj Verma, Head, Department of Business Administration, and convened by Dr. Bharti Chaudhary, Dr. Shilpee Aggarwal and Dr. Anitha Gopal. The initiative was undertaken with the institutional support and guidance of Prof. (Dr.) Rajni Malhotra Dhingra, Head of the Institution. The participation of faculty members from the Department of Business Administration as resource persons enabled topic-wise academic expertise across research methodology, statistical analysis, literature work and research communication.

Conclusion

The “Hands-on Research Methods: Excel, Jamovi, and AI for Data Analysis” Value-Added / Skill Enhancement Certificate Course was designed as a comprehensive practical initiative to strengthen undergraduate students’ research and data-analysis capabilities. The programme combined research methodology with data management, Excel, Jamovi, statistical testing, literature review, qualitative and systematic research approaches, research writing, presentation and AI-enabled research support.

With 28 students recorded as beneficiaries, a structured session plan and participation of multiple faculty resource persons, the course provided a multidisciplinary learning environment. The initiative reflects the Department of Business Administration’s emphasis on experiential learning, research orientation and contemporary analytical skills.

13. Glimpses of the Course

Monica Sharma (Presenting)

Where will the study be carried out?

- ❑ Researcher carefully selects the area of his/her investigation; means which area of study is suitable for this research project?
- ❑ Suppose, if we want to know about the ideas and views of GGSIPU University's students about the university cafeteria's atmosphere.

Monica Sharma

Aryan Khandelwal Sanskriti Jain Puru Single

Deepanshu 11 others khushi dhingra

15:05 | exp-ccqt-fmc

17:48 / 1:06:06

Dr. Shilpee Aggarwal (Presenting)

You are presenting

To avoid an infinity mirror, don't share your entire screen or browser window. Share just a tab or a different window instead.

Show my screen anyway Stop presenting

In-call messages

Let contributors send messages

You can pin a message to make it visible for people who join later. When you leave the call, you won't be able to access this chat.

MARKETING

Vanshika Yadav 14:59 yes mam

Kumar Deep 14:59 Finance

Send a message

Dr. Shilpee Aggarwal (You, presenting)

Stop presenting

15 others

15 others

khushi dhin...

15:01 | vbm-hdah-zxg

Vanshika Yadav, Sanskriti Jain, and 3 more have raised hands

Open queue

14:03 / 1:11:22