

# Course - I

## Research Methodology

| Course Title & Code              | Credits | Credit Distribution |          |                     | Teaching Hours | Internal Marks | Exam Marks | Total Marks |
|----------------------------------|---------|---------------------|----------|---------------------|----------------|----------------|------------|-------------|
|                                  |         | Lecture             | Tutorial | Practical/ Practice |                |                |            |             |
| Course - I: Research Methodology | 4       | 3                   | 1        | 0                   | 60 Hours       | 25             | 75         | 100         |

### Course Objectives

Upon completion, scholars will master advanced research design, systematic literature reviews and LIS-specific methodologies. They will achieve proficiency in multivariate statistics, qualitative analysis, and data visualization, while ensuring academic integrity and professional thesis construction using modern AI and international citation standards.

### Unit-1: Foundations of Research and Research Design (15 Hours)

- ☞ Identification and Formulation of Research Problem
- ☞ Types of Research Design: Exploratory, Descriptive, Experimental
- ☞ Review of Literature: Principles, Forms, Types, Tools including AI-based
- ☞ Systematic Literature Review: PRISMA, and SALSA
- ☞ Hypothesis Formulation and Testing

### Unit-2: Research Methods and Techniques in LIS (20 Hours)

- ☞ Quantitative, Qualitative, and Mixed-Methods of Research
- ☞ Domain-Specific Research Methods in LIS
- ☞ Sampling Techniques and Research Populations

- ☞ Data Collection Methods: Questionnaire Design, Interview Techniques,
- ☞ Observation Methods and Content Analysis
- ☞ Use of Library Records, Institutional Repositories, and Archival Data
- ☞ Metric Studies in LIS: Bibliometrics, Scientometrics, Informetrics, Webometrics, Altmetrics

### **Unit-3: Data Analysis, Interpretation, and Visualization**

**(15 Hours)**

- ☞ Data Preparation, Coding, and Cleaning
- ☞ Descriptive and Inferential Statistics
- ☞ Multivariate Analysis Techniques
- ☞ Qualitative Data Analysis: Thematic Analysis, Grounded Theory, Narrative Analysis
- ☞ Data Visualization and Research Dashboards
- ☞ Interpretation of Results and Drawing Valid Conclusions

### **Unit-4: Research Writing and Management**

**(10 Hours)**

- ☞ Structure and Components of a Thesis
- ☞ Academic Writing Styles and Argumentation
- ☞ Style Manuals: APA, MLA, Chicago, and Online Indian Citation
- ☞ Academic Integrity, Plagiarism, AI Text and Use of Plagiarism Detection Tools

### **Essential Readings**

- ☞ AMERICAN PSYCHOLOGICAL ASSOCIATION. Publication manual of the American Psychological Association. Ed. 7. American Psychological Association. 2020.
- ☞ BUSHA (C) and HARTER (SP). Research methods in librarianship: techniques and interpretation. Orlando, Academic Press. 1980.
- ☞ CRESWELL (J W) and CRESWELL (J D). Research design: Qualitative, quantitative, and mixed methods approaches. Ed.6, Thousand Oaks, Sage Publications, 2022.
- ☞ GOODE (WJ) and HATT (PK). Methods in social science research. Asia Law House, New Delhi. 2025.
- ☞ KOTHARI (C R) and GARG (G). Research methodology: Methods and techniques. Ed.5. New Age International, New Delhi, 2025.

- ☞ KUMAR (R). Research methodology: Step-by-step guide for beginners. Sage Publications, New Delhi, 2011.
- ☞ YOUNG (PV). Scientific social surveys and research. Prentice Hall of India, New Delhi, 2012.

## **Suggested Readings**

- ☞ BRYMAN (A). Social research methods. 5th ed. Oxford, Oxford University Press. 2016.
- ☞ GORMAN (GE) and CLAYTON (P). Qualitative research for the information professional: A practical handbook. 2nd ed. London, Facet Publishing. 2005.
- ☞ HEALY (K). Data visualization: A practical introduction. Princeton, Princeton University Press. 2018.
- ☞ LINE (MB). Library surveys: An introduction to the use, online and procedure of survey and methods of survey of libraries. 2nd ed. London, Bingley. 1982.
- ☞ MODERN LANGUAGE ASSOCIATION. MLA handbook. Ed. 9. Modern Language Association of America. 2021.
- ☞ PICKARD (AJ). Research methods in information. 3rd ed. London, Facet Publishing. 2017.
- ☞ REVELLE (A). Preparing the data: data analysis for the library and information professional. Chicago, ALA Editions. 2010.
- ☞ TAN (W). Research methods: A practical guide for students and researchers. Ed.2. World Scientific, Singapore, 2022.
- ☞ WALLIMAN (N). Research methods: the basics. 2nd ed. London, Routledge. 2021.