

## **Ph.D. Coursework**

### **Research Methodology in Commerce and Management Studies**

#### **Course Objectives:**

- To develop a strong conceptual understanding of the nature, scope, and ethics of research in commerce and management.
- To Identify research gaps and formulate sound research problems, objectives, and hypotheses.
- To design appropriate research frameworks, sampling plans, and methodological approaches for empirical studies.
- To apply both quantitative and qualitative research methods for the analysis of business and social science data.
- To use statistical and qualitative software tools (SPSS/R/NVivo) for systematic data analysis.
- To acquire the skills required for research reporting, thesis writing, and publication in peer-reviewed journals with ethical integrity.

#### **Course Outcomes**

After completing this course, the scholar will be able to:

CO1: Explain the philosophical foundations of research, research paradigms, and ethical standards in academic inquiry.

CO2: Conduct a systematic literature review and develop robust conceptual and theoretical frameworks.

CO3: Design appropriate research methodologies, sampling techniques, and instruments for data collection.

CO4: Apply quantitative statistical techniques and qualitative analytical methods for empirical research.

CO5: Interpret research findings using advanced analytical tools and software applications.

CO6: Prepare a high-quality research proposal, thesis, and journal articles adhering to plagiarism norms and publication ethics.

## Unit I – Foundations of Research & Research Problem Formulation

## **Credit-1                                  Hours 15                                  Marks 25**

- Nature, aims and types of research.
- Research paradigms in social science and business.
- Attributes of good research and research ethics.
- Identification of research problems and formulation of objectives.

## Unit II – Literature Review, Research Design & Sampling Techniques

## **Credit-1                          Hours 15                          Marks 25**

- Identifying research gaps, variables, constructs and measurement.
- Systematic literature review, PRISMA flow, writing syntheses, mapping gaps, and building theoretical frameworks
- Exploratory, descriptive, causal and mixed-methods designs.
- Cross-sectional vs longitudinal, experimental and quasi-experimental designs.
- Sampling methods (probability and non-probability) and sample size determination.

## Unit III – Quantitative & Qualitative Methods and Measurement

- Descriptive and inferential statistics (t-test, Chi-square, ANOVA).
- Regression analysis and diagnostics.
- Multivariate techniques: Factor Analysis, SEM, MANOVA, Cluster and Discriminant Analysis, Time-series basics and panel data techniques as relevant to management research
- Reliability (Cronbach's  $\alpha$ , test-retest), validity (content, construct, criterion), Likert and semantic differential scales; scale development steps and pilot testing.
- Questionnaire construction(Open ended and close ended questions), pretesting and survey administration (online & offline)
- Qualitative research traditions: case study, grounded theory, ethnography (brief coverage), thematic analysis, mixed-methods designs, use of NVivo/Atlas.ti.

## **Unit IV– Research Reporting, Thesis Writing & Publication Ethics**

<b>Credit-1</b>	<b>Hours 15</b>	<b>Marks 25</b>
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- Research proposal and thesis writing.
- Citation Styles, Referencing and plagiarism checks.
- Publication in peer-reviewed journals, ethics of publication.
- Presentation of findings, business implications and policy suggestions.

### **Suggested readings**

#### **Core textbooks**

- Kothari, C.R. *Research Methodology: Methods & Techniques*.
- Cooper, D.R. & Schindler, P. *Business Research Methods*.
- Creswell, J.W. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*.
- Malhotra, N.K. & Dash, S. *Marketing Research: An Applied Orientation*.
- Gujarati, D. & Sangeetha, *Basic Econometrics*.

#### **Supplementary**

- Saunders, M., Lewis, P., & Thornhill, A. *Research Methods for Business Students*.
- Berg, B.L. *Qualitative Research Methods for the Social Sciences*.
- Hair, J.F., *Multivariate Data Analysis*.
- APA Publication Manual; resources on PRISMA and systematic reviews