

DSE (III.3.4) Educational Research Design Discipline Specific Elective

1. Credit Distribution of the Course

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE (III.3.4)						
Educational Research Design	4	3	1	0	Undergraduate	NIL

2. Learning Objectives

This course deepens the students' understanding of research paradigms, quantitative and qualitative designs, mixed-method approaches, and advanced data analysis techniques in educational research. It focuses on developing competence in formulating complex research problems, designing robust studies, using statistical and qualitative tools, and interpreting data ethically and meaningfully.

4. Learning Outcome

- Articulate the theoretical and philosophical underpinnings of different research paradigms.
- Design and execute advanced quantitative, qualitative, and mixed-method studies.
- Apply statistical and interpretive tools for meaningful data analysis.
- Develop and validate research tools using reliability and validity measures.
- Demonstrate ethical and scholarly competence in research writing and reporting.

4. Syllabus

[45 hours]

Unit I Philosophical and Paradigmatic Foundations of Research - Nature and purpose of educational research, Ontological, epistemological, and methodological assumptions, Positivist, interpretivist, and critical paradigms, Emerging paradigms: postmodernism, feminist research, indigenous research traditions, Ethical issues in advanced research.

[12 hours]

Unit II Quantitative Research: Advanced Designs and Techniques - Experimental, quasi-experimental, and ex-post facto designs; longitudinal, causal-comparative, and multivariate designs. Mixed-Methods and Action Research.

[9 hours]

Unit III Qualitative Research: Approaches and Analysis - Qualitative designs: ethnography, case study, phenomenology, grounded theory, narrative inquiry, Data collection methods: interview, observation, document analysis, Data analysis: thematic analysis, trustworthiness, reflexivity, and triangulation. **[12 hours]**

Unit IV Proposal Development, Data Interpretation, and Reporting - Structure of a research proposal, Review of literature: synthesis and critical analysis, Data interpretation and visualization, APA 7th edition referencing style and citation management (Zotero/Mendeley), Academic writing for journals, dissertations, and reports, Reporting qualitative findings. **[12 hours]**

5. Tutorials **[15 hours]**

- Prepare a research proposal using a selected methodology.
- Conduct a pilot study with data collection and preliminary analysis.
- Conduct a mini qualitative study (e.g., case study/interview-based inquiry).
- Write a review paper or conceptual framework based on recent research literature.

6. Essential Readings

- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage Publications.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education*. Routledge.
- Kothari, C. R., & Garg, G. (2019). *Research Methodology: Methods and Techniques*. New Age International.

7. Suggestive Reading

- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative Data Analysis: A Methods Sourcebook*. Sage.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2015). *How to Design and Evaluate Research in Education*. McGraw-Hill.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and Conducting Mixed Methods Research*. Sage.