Semester: VII				
Course: B.Com.				
Course Title: RESEARCH ETHICS, ACADEMIC WRITING & ANALYTICAL TOOLS				
Course code: B4BC230712T			**Credits: 4**	
Group A - RESEARCH ETHICS, ACADEMIC WRITING (50 MARKS)				
Category: Core/MDC/SEC/VAC: Minor				
Theory / Practical / Composite: Theory				
Course Overview: This course is designed for doctoral students in social science to enhance their academic writing skills and deepen their understanding of ethical issues in research. It also tries to familiarize them with the ethical standards in research and develop critical thinking and analytical skills in academic contexts. This course will prepare students for publishing their research.				
Course Outcome:				
CO1 - Demonstrate an understanding of the principles and practices of academic writing in social sciences.				
CO2 - Apply appropriate research design and methodological approaches to address identified research problems.				
CO3 - Communicate research effectively through structured writing, data presentation, and scholarly discourse.				
CO4 - Exhibit ethical responsibility and integrity in conducting and reporting research.				
CO5 - Critically evaluate research publications with reference to plagiarism, predatory practices, and standards of publication ethics.				
UNIT/Module	**CONTENT**	**NUMBER OF CLASSES**	**CO Mapping**	**COGNITIVE LEVEL**
I. Foundations of Academic Writing	**Unit 1.1. Building Blocks of Academic Writing** Introduction to academic writing, creating outlines, Structuring the academic paper, Ways to write a successful article, Important Considerations when doing your research. **Unit 1.2. Citation and Referencing Styles** Citation mechanism, Referencing styles (APA, MLA, Chicago, etc.) **Unit 1.3 Conducting Literature Reviews** Concept of literature review, Steps in the literature review process, Outcomes of a	15	CO1, CO2	K1(REMEMBER) K2 (UNDERSTAND) K3 (APPLY) K4 (ANALYSE)

	literature review, Framing the review, Analysing and synthesizing the literature, IMRaD framework of literature review, Review of literature using PRISMA framework.			
II. Introduction to Report Writing	**Unit 2.1. Purpose and Components of Report Writing:** Purpose of Report Writing, Components of Report Writing and its Formatting. **Unit 2.2. Types of Reports:** Business, Technical, Academic, Government, Informational, Analytical, Feasibility and Progress Reports. **Unit 2.3. Data Visualization Techniques in Report:** Pictorial Representations of Findings in Report.	12	CO1, CO2, CO3	K2 (UNDERSTAND) K3 (APPLY) K4 (ANALYSE) K6 (CREATE)
III. Scholarly Communication and Selection of Journal	**Unit 3.1. Revision & Editing Techniques** – Peer review sessions, Strategies for self-editing and improving drafts, Desk rejection. **Unit 3.2. Selection of the right journal for publication –** Importance of Publishing in Reputable Journals, Understanding Journal Types (Scopus, Web of Science, and Open Access), Journal Finder Tools, Understanding Impact Factors and Indexing.	7	CO1, CO2, CO3, CO4	K2 (UNDERSTAND) K3 (APPLY) K4 (ANALYSE) K5 (EVALUATE)
IV. Research Integrity and Ethics	**Unit 4.1. Managing Scientific Conduct during Publication** Concept of Integrity, Concept of Academic Integrity, Scientific Misconduct and	9	CO3	K1(REMEMBER) K2 (UNDERSTAND) K3 (APPLY) K5 (EVALUATE)

	Research Fraud (Falsification, Fabrication and Plagiarism: FFP), Intellectual Honesty in Research **Unit 4.2. Publication Ethics** Concept of Publication Ethics, Ethics Committee, Managing Publication Ethics through Best Practices Standards (COPE, WAME), Violation of Publication Ethics, Authorship and Contributor ship & Conflict of Interest.			
V. Plagiarism, Predatory Publishing & Ethical Safeguards	**Unit 5.1. Managing Plagiarism during Publication** Concept of Plagiarism, Types of Plagiarism, UGC Guidelines on Levels of Plagiarism, Plagiarism Detection Software-Selection of Appropriate Software. **Unit 5.2. Avoiding Predatory Journals and Publishers** Meaning of Predatory Journal, Characteristics of a Predatory Journal, Ways to Find Predatory Journals and Publishers, Role of the Academic Community to Fight Against Predatory Publication.	9	CO3	Remember, Understand, Apply, Evaluate

Text Books

1. Bhunia, Amalendu (2024) How to Focus on Quality Research, Notion Press.
2. Dutta, Sumanta (2024) Research & Publication Ethics in Social Science, 3rd Edition, Bharti Publication.
3. Parija, Subhash Chandra; & Kate, Vikram (2017) Writing and Publishing a Scientific Research Paper, Springer Singapore
4. Partha Pratim Ray (2022) A Guide to Research and Publication Ethics, New Delhi Publishers.
5. Iltis, Ana S., and Douglas MacKay (eds.) (2024) The Oxford Handbook of Research Ethics, Oxford Handbooks .

Suggested readings

1. Bhunia, Amalendu (2024) Diving Deep into Business Research, Techno World.
2. Hartley, James. Academic writing and publishing: A practical handbook. Routledge, 2008.
Web Resources
1. https://ds7-backend.ndl.gov.in:8443/aiktc/api/core/bitstreams/9428c4db-8f07-4084-9cbf-1f57e66efa59/content
2. https://authorservices.taylorandfrancis.com/publishing-your-research/writing-your-paper/writing-a-journal-article/
3. https://dde.manuu.edu.in/sites/default/files/DDE/DDE-SelfLearnmaterial/BA-6thSemester/Englishba6th28may24.pdf

Course Outcomes (COs) and Cognitive Level Mapping

COs	CO Description	Cognitive levels
CO1	Understand the various elements of a research article (structure, citation, literature review, IMRaD, PRISMA)	Remember, Understand
CO2	Develop skills to write an impactful article through effective structuring, data presentation, and scholarly communication	Apply, Analyze
CO3	Design and execute appropriate research methodology, including research questions, sampling, and questionnaire framing	Apply, Create
CO4	Critically interpret findings, draw conclusions, and align research with suitable journals for publication	Analyze, Evaluate
CO5	Demonstrate awareness and practice of academic integrity, publication ethics, authorship standards, and conflict of interest management	Understand, Evaluate
CO6	Identify, evaluate, and safeguard against plagiarism and predatory publishing practices using guidelines and detection tools	Understand, Apply, Evaluate

Group B – Analytical Tools (50 MARKS)	
Course Code: B4BC230712P	**Credits: 4**
Category: Minor	
Theory/Practical/Composite : Composite	
No. of Modules : 2	
Course Overview: This course offers a practical and conceptual foundation in statistical analysis using SPSS (Statistical Package for the Social Sciences). Designed for beginners and intermediate users, the course introduces the basics of research methodology, data entry, and data management in SPSS. Students will learn to perform descriptive statistics, create various types of graphs, and apply both parametric and non-parametric statistical tests. Emphasis is placed on interpreting results accurately and developing analytical reports. By the end of the course, students will be able to conduct complete data analyses and draw meaningful conclusions using SPSS tools and techniques.	
Course Outcome:	
CO1: Define and identify key concepts of research methodology and the SPSS interface.	
CO2: Describe the components of the SPSS environment and explain basic data handling procedures.	
CO3: Use SPSS to input, edit, and transform data, and demonstrate computation of new variables.	
CO4: Analyse datasets using descriptive statistics and compare results through	

graphical outputs.

CO5: Evaluate statistical outcomes using hypothesis testing techniques and justify the selection of appropriate tests.

CO6: Design a comprehensive statistical analysis using SPSS and construct reports integrating graphs, summaries, and interpretations.

Prerequisites:

1. **Basic Knowledge of Statistics**
   - Understanding of concepts such as mean, median, standard deviation, correlation, and hypothesis testing.
   - Familiarity with statistical terminology and types of data (nominal, ordinal, interval, ratio).
2. **Basic Computer Literacy**
   - Ability to operate Windows-based software.
   - Skills in file handling (opening, saving, importing, exporting files).
3. **Familiarity with Microsoft Excel (preferred but not mandatory)**
   - Understanding how to input, organize, and format data in spreadsheet form.
   - Helps in understanding data structures used in SPSS.
4. **Basic Understanding of Research Methodology**
   - Awareness of concepts like variables, sampling, data collection, and research objectives.
   - Helpful for interpreting statistical outputs in context.

SYLLABUS

Unit/Module with topic name	Content	Number of Classes	CO Mapping	Cognitive Level
III. Basics of SPSS	1. Basics of Research Methodology and Introduction of SPSS 2. Running SPSS and The Initial SPSS window(s) • Running SPSS • The Initial SPSS window(s) • Basic Commands <u>Overview</u> • The Title Bar • The Menu Bar • The (Power) Tool Bar • The Data Editor (Data View and	14	CO1, CO2, CO3, CO4	K1 (Remember), K2 (Understand), K3 (Apply), K4 (Analyze)

	Variable view) • The Status Bar 3. Sample SPSS session • Open File • List Cases • Frequencies • Explore • Graphics 4. Creation of a small data file and computation of new variables • Handling data in SPSS data entry-Concept of variable view, data view, output view, draft view and syntax view. • Data Editing • Data transformation • Computation of new (or existing variables) • Data Re-coding 5. Descriptive statistics • Construction of frequency table • Measures of Central Tendency • Measures of dispersion • Skewness & Kurtosis 6. Graphing your data • Simple bar graph • Histogram • Pie chart			

		• Box plot • Scatter plot 7. Correlation and Regression (Bivariate & Multivariate cases)			
IV.	Hypothesis Testing: Parametric tests	8. z-test, 9. t-test (specified mean and proportion, equality of means and proportions) 10. ANOVA	6	CO5	K5 (Evaluate)
V.	Hypothesis testing: Non-parametric tests	11. Chi-square test (goodness of fit and independence of attributes). 12. Reliability test	6	CO5, CO6	K5 (Evaluate), K6 (Create)
Text Books					
6. "Discovering Statistics Using IBM SPSS Statistics", by Andy Field.					
7. "IBM SPSS for Introductory Statistics: Use and Interpretation", by George A. Morgan et al.					
8. "Using IBM SPSS Statistics for Research Methods and Social Science Statistics", by William E. Wagner, III.					
Suggested readings					
3. "SPSS Survival Manual", by Julie Pallant.					
4. "SPSS for Windows: step by Step: A Simple Guide and Reference, 11.0 Update", by Darren George and Paul Mallery.					
5. "Advanced and Multivariate Statistical Methods: Practical Application and Interpretation", by Craig A. Mertler & Rachel Vannatta Reinhart.					
6. "Statistics for People Who (Think They) Hate Statistics", by Neil J. Salkind.					
Web Resources					
4. https://onlinecourses.swayam2.ac.in/imb25_mg93/preview					
5. https://nptel.ac.in/courses/110107113					
6. https://onlinecourses.swayam2.ac.in/arp19_ap77/preview					

Course outcomes (COs) and Cognitive Level Mapping

COs	CO Description	Cognitive levels
CO1	Define and identify key concepts of research methodology and the SPSS interface.	K1 (Remember)
CO2	Describe the components of the SPSS environment and explain basic data handling procedures.	K2 (Understand)
CO3	Use SPSS to input, edit, and transform data, and demonstrate computation of new variables.	K3 (Apply)
CO4	Analyse datasets using descriptive statistics and compare results	K4 (Analyze)

	through graphical outputs.	
CO5	Evaluate statistical outcomes using hypothesis testing techniques and justify the selection of appropriate tests.	K5 (Evaluate)
CO6	Design a comprehensive statistical analysis using SPSS and construct reports integrating graphs, summaries, and interpretations.	K6 (Create)