

**B. P. S. Mahila Vishwavidyalaya, Khanpur Kalan  
(Sonipat)- 131305**

**Department of Commerce**

**Programme Code - 13**

**Scheme and Syllabi of**

**Pre-Ph.D. (Course work) in Commerce**

**w.e.f. July 2022**



*Bhavna Sharma*  
Bhavna Sharma  
In Charge, Commerce

### **Program Outcome/s (POs)**

- The students learn to apply the knowledge of research methodology, statistics and management to the solution of multifaceted social science.
- The students will be able to employ innovative knowledge and imaginative methods
- The students will be able to apply appropriate techniques and modern software's tools including forecasting and modeling to composite activities to complete the research topic selected by them after studying the course work.

### **Program Specific Outcome/s (PSOs)**

After completion of the programme, research students should have shown evidence of being able to:

- demonstrate a thorough knowledge of the literature and a comprehensive understanding of methods and techniques applicable to their own research
- discover, interpret and communicate new knowledge through original research of publishable quality which satisfies peer review.
- present and defend original research outcomes which extend the forefront of a discipline or relevant area of professional practice
- critically and creatively evaluate current issues, research and advanced scholarship in the discipline
- manage complex ethical and professional issues and make informed judgements on ethical codes and practices

**DEPARTMENT OF COMMERCE**  
Bhagat Phool Singh Mahila Vishwavidyalaya Khanpur Kalan  
(Sonapat) Haryana-131305).

Scheme & Syllabi of Pre-Ph.D. (Course work) in Commerce  
(w.e.f July 2022)

Sr. No.	Paper Code	Paper Title	Hours Per Week			Total Credits per week	Max Marks		
			L	P	T		Internal Marks	External Marks	Totals Marks
1	PHDC-2101	Research Methodology	4	0	1	5	20	80	100
2.	PHDC-2103	Quantitative Techniques through Statistical Software	3	2	0	5	---	50 (External Theory) 50 External Practical Marks)	100
3.	PHDC-2105	Research & Publications Ethics	4	0	1	5	20	80	100
<b>Total Credits</b>									<b>300</b>

<b>PHDC-2101</b>	<b>Pre-Ph.D. Course Work</b>	
<b>L-T-P</b>	<b>Research Methodology</b>	
<b>4-1-0</b>		<b>Max. Marks 100</b>
		<b>Internal Marks 20</b>
		<b>External Marks 80</b>
		<b>Time 3 Hours</b>

**Course Objective:** The main purpose of this paper is to understand the process of research, concepts of sampling and tools for data collection and analysis and process of documentation and research report writing.

**Instructions for Paper Setter/Examiner:**

The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 8 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 16 marks each.

**Course Inputs:**

**Unit-I**

Research: Nature and scope, Formulation of a research problem and research design and its types, Qualitative and Quantitative research, Methods of data collection (Primary and Secondary);

**Unit-II**

Sampling fundamentals : Sample size determination, Sampling frame, Sampling design, Sampling techniques, Sampling and Non sampling errors, Law of large number and Centre limit theorem, Qualities of a good sampling design;

**Unit-III**

Measurement Scales, Scaling techniques, Reliability and Validity, Attitude Thurstone's scaling, scale, Likert's scale, Cumulative scaling; Questionnaire framing, Pre testing and Pilot study;

**Unit - IV**

Hypothesis formulation and Testing: Type I error, Type II error, Level of significance, Critical regions, Degree of Freedom, Parametric (Large Sample Test, Small Sample Test) and Non parametric tests.

**Course Outcomes:** To develop the ability to choose appropriate methods for research aims and objectives, to Understand the benefits and limitations of various research techniques available for data analysis and develop advanced critical thinking skills.

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In Charge, Commerce

**Suggested Readings:**

1. Malhotra, Naresh K: Marketing Research an Applied Orientation, 5th edition, Pearson.
2. Cooper and Schindler: Business Research Methods, 8<sup>th</sup> edition, Tata Mc Graw Hill.
3. Boyd & Westfall: Marketing Research, Prentice Methods, Hall
4. Kothari, C. R.: Research Methodology, New Age International Publishers.
5. Shekharan & Uma: Business Research Methods-A Skill- Building Approach, 7th ed., New York, John Willy, 2002.
6. Creswell, John W.: Research Design- Qualitative & Quantitative Methods, New York, John Willy, 2002.

**Pre Ph.D. Course Work**  
**Quantitative Techniques through Statistical Softwares**

**PHDC-2103**  
**L-T-P**  
**4-1-0**

**Max. Marks: 100**  
**Practical\* 50**  
**External Theory 50**  
**Time:3 Hours**

**Course Objective:**

The objective of this course is to make the students learn about the application of statistical tools and techniques for decision-making.

**Instructions for Paper Setter/Examiner:**

The examiner shall set nine questions in all covering the whole syllabus. Question No.1 will be compulsory covering all the units and shall carry 5 small questions of two marks each. The rest of the eight questions will be set from all the four units. The examiner will set two questions from each unit out of which the candidate shall attempt four questions selecting one question from each unit. All questions shall carry 10 marks each.

**\*For Practical:**

The practical examination will be conducted by a board of two examiners i.e. one External and one Internal. The external and internal examiners shall be appointed by the chairperson.

**Course Inputs:**

**Unit-I**

Introduction to SPSS, Preparation of data files: Define variables, Data entry, Data coding, Issues in Data Cleaning, Missing values, Recoding, Improper codes, Outliers, Descriptive statistics, Reliability Testing, Validity testing;

**Unit-II**

Parametric techniques: Correlation, T test, One way ANOVA, Two way ANOVA MANOVA, SPANOVA, ANCOVA, Non parametric techniques: Chi-Square test, Mann-Witney U test, Wilcoxon Sign Rank test, Kruskal Wallis test, Friedman test, Spearman's rank- order correlation test.

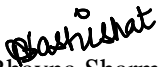
**Unit-III**

Financial econometrics techniques: Regression (Practical only), Panel Data, Regression through STATA and E Views (Practical only), Multicollinearity, Heteroscedasticity and Auto correlation, Dummy Variable- Logit and Probit Model (Practical only), Time Series Analysis- concept and component (Practical only)

**Unit-IV**

Factor Analysis: Principal Component Analysis (Practical only), Confirmatory Analysis(Practical only), Path Analysis using AMOS (Structured Equation Modeling) (Practical only).

**Course Outcomes:** Students will be able to use statistical tools and techniques in research for better decisions.

  
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**Suggested Readings:**

1. Gream Willian (2000). " Econometrics Analysis", 5th Edition, Prentice Hall
2. Goldberder,A.S (1998). "Introductory Econometrics", Harvard University Press, Cambridge.
3. Patterrson Kerry.P (2000). An Introduction to applied Economerics", Vol.1, Oxford U.K, Blackwell Publishing.
4. Gujarati Damodar (2002). "Basic Econometrics", 4th Edition, Mc Graw Hill.

### **Research and Publications Ethics**

**Paper Code: PHDC-2105**

**External Theory Marks: 80**

**Total Credits: 5**

**Internal Marks:20**

**Course Objective:** The aim of this course is to acquaint the students about the basic concepts of Research and importance of ethics in research and publications besides making them aware about plagiarism, predatory journals and impact factor metrics.

#### **Instructions for External Theory Paper Setter/ Examiner:**

The question paper will have two sections. Section A will comprise of 8 small answer type questions of 2 marks each. Section B will contain 8 questions of 16 marks each (2 questions from each unit). The students will be required to attempt 4 questions (1 question from each unit).

#### **Unit-I**

**BASIC CONCEPTS:** Difference between dissertation, thesis, research project, research paper, review paper, Synopsis, abstract, hypothesis, annotated bibliography, review, review article, citation, peer review, refereed publication, Boolean operators.

**THESIS AND REPORT WRITING:** Title page, table of contents, heading and sub-headings, footnotes, tables and figures, Interpretation of Data, appendix, bibliography. Review of Literature-Concept, Importance Types.

#### **Unit-II**

**PHILOSOPHY AND ETHICS;** Introduction to Philosophy; Definition, nature and scope, concept, branches; Ethics; Definition, moral philosophy, nature of moral judgements and reactions.

**OPEN ACCESS PUBLISHING:** Open access publications and initiatives. online resource to check publisher copyright & self- archiving policies; Software tool to identify predatory publications developed by SPPU; Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester.

#### **Unit-III**

**SCIENTIFIC CONDUCT:** Ethics with respect to science and research, Intellectual honesty and research integrity, Scientific misconducts: Falsification, fabrication and plagiarism (FFP); Redundant publications: duplicate and overlapping publications, salami slicing; Selective reporting and misrepresentation of data.



PUBLICATION MISCONDUCT; Subject specific ethical issues, FFP, authorship; Conflict of interest; Complaints and appeals: examples and fraud from India and Abroad; Software tools; use of plagiarism software like Turnitin, Urkund and other open source software tools.

#### **Unit-IV**

PUBLICATION ETHICS: Definition, introduction and importance; Best practices/standards setting initiatives and guidelines: COPE, WAME. Conflict of interest; Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa ,types ; Violation of publication ethics, authorship and contributorship; Identification of publication misconduct, complaints and appeals; Predatory publishers and journals.

DATABASE AND RESEARCH METRICS; Database; Indexing database; Citation databases: Web of Science, Scopus; Impact Factor of Journal Citation Report, SNIP, SJR, IPP, Cite Score; Metrics: h-index, i10 index, altmetrics.

**Course Outcome:** Students will be able to identify misconduct in research, plagiarism and predatory journals which will ultimately help them in improving the research quality. In addition, they will learn how to create research database, impact factor and almetrics in research reports.

#### **Suggested Readings:**

1. Brooks, R., Kitty te Riele & Maguire, M. 2014. Ethics and Education Research, Sage Publications.
2. Carroll, J. 2015. A handbook for Deterring Plagiarism in Higher Education. Oxford Centre for Staff and Learning Development.
3. Francisco M. Salzano, A. & Magdalena Hurtado. 2004. Lost Paradises and the Ethics of Research and Publication. Oxford University Press. New York.
4. Hammersley, M. & Traianou, A. 2012. Ethics in Qualitative Research Controversies and Contexts. SAGE Publications Ltd.
5. Loue, S. 2000. Textbook of Research Ethics: Theory and Practice, 2000th Edition. Springer.