

**SYLLABUS  
FOR  
PH.D. COURSE WORK IN COMMERCE  
A ONE SEMESTER COURSE**

*(Effective from the academic session 2021-2022 and onwards)*



**COOCHBEHAR PANCHANAN BARMA UNIVERSITY  
COOCHBEHAR, WEST BENGAL**

## COOCHBEHAR PANCHANAN BARMA UNIVERSITY

### Syllabus for Ph.D. Course Work in Commerce

PAPERS	PAPER CODE	SUBJECTS	MARKS	CREDIT
Paper - I	Course - 1	A: Research Methodology	100	4
Paper - II	Course – 2	A: Finance	50	2
		B : Econometric Application to Finance	50	2
Paper - III	CPE-RPE	Research and Publication Ethics (Theory and Practice)	50	2
Total			250	10

#### Important points to be noted:

- Duration of Course Work : One Semester (6 Month)
- Total Marks : 250
- Duration of Examination: 2 hours for paper – I & III and 4 hours for paper – II

#### **Paper - I (Course – 1): Research Methodology**

Research Methodology paper consists of three components namely research methodology (General), Research Proposal and Presentation. It carries 100 marks. A written examination will be held in the paper for 50 marks. All Ph.D. course work students have to submit a research proposal which carries 25 marks and they have to present their research proposal and presentation carries 25 marks.

#### **Paper – II (Course – 2): (A,B)**

All Ph.D. course work students have to take A: Finance & B : Econometric Application to Finance

#### **Paper - III (CPE – RPE): Research and Publication Ethics (Theory and Practice)**

All Ph.D. course work students must have to successfully complete and qualify the Research and Publication Ethics (Theory and Practice) paper. It carries two credits of 50 marks.

- Examination will be held at the end of the Semester.

## **Detailed Syllabus**

### **Paper - I (Course – 1):**

#### **A. Research Methodology (General)      [Marks: 50; Lectures:40]**

##### **Unit I: Introduction**

Meaning and Definitions of Concept: Construct definitions, Operational Definition, Objectives of Research; Sources of knowledge, Research Process, Positivism, Interpretation, Ontological Consideration. Concept of process, types, approaches. Research Problem: Identification and formulation, criteria for good research problem. Preparation of research proposal. Components of Research Design, Hypotheses; Types, qualities of workable hypotheses, usefulness of hypotheses in business research.

##### **Unit II: Sampling and Data Collection Sampling:**

Principles, Methods (Probability and Non- Probability), Characteristics, Sampling Distribution and Errors. Data Collection Sources (Primary, Secondary), techniques: Observation, Interview, Schedules, and Questionnaire.

##### **Unit III: Data Analysis**

Data preparation: Editing, Coding, and preliminary arrangement, Univariate and Bi-Variate. Statistical Estimations and Testing: Statistical testing of hypotheses confidence interval and error of estimation; test of attributes and variables, z - test, t - test, and F– test.

Non Parametric Tests: Chi-square test; Sign test; Wilcoxon Signed -Rank test; Wald-Wolfowitz test; Kruskal-Wallis Test, Mann Whitney U Test. Interpretation of Statistical Results

## **Suggested Readings:**

Bryman Alan & Bell Emma, (2012), Business Research Methods, Oxford University Press.  
Cooper Donald R. & Schindler Pamela S, (2010), Business Research Methods, Tata McGraw  
Hooda R.P, (2010), Statistics for Business and Economics, Macmillan.  
Kothari C.R,(2007), Research Methodology, New Age International.  
Michael V.P,(2003), Research Methodology in Management.  
Broota K. D., (1992), Experimental Design in Behavioural Research, Wiley Eastern.  
Burns Robert B ,(2000), Introduction to Research Methods, Sage Publication, New Delhi.  
Kerlinger Fred N.,(1999), Foundations of Behavioural Research. Wadsworth Publishing, 4th Edition.  
Kothari C R.,(2004), Research Methodology – Methods and Techniques, New Age Publications, India.  
Popper Karl R,(1968), The logic of Scientific Discovery, Hutchinson, London  
Young Pauline V,(2001), Scientific Social Surveys and Research, Prentice Hall of India, New Delhi.

## **B. Research Proposal and Presentation: [Marks: 50; Lectures: 40]**

The objective of this course is to inculcate in students the ability to review literature, write a research proposal of their choice and present the same before faculty members of the department.

## **Paper - II (Course – 2):**

### **A. Finance: [Marks: 50; Lectures: 40]**

*Course Objective:* To acquaint the students with the empirical evidence on various issues in finance, to prepare students for applying various concepts and theories in finance and equipping them to identify research gaps and developing framework for research in finance. The emphasis must be on reading and understanding of seminal as well as applied research papers which have provided empirical evidence on various issues in finance.

#### **Unit I- Corporate Finance:**

Introduction to the Fundamental Concepts of Corporate Finance, Time Value of Money, Bonds & Interest Rates, Fundamentals of Capital Budgeting, Risk/Return Tradeoff and CAPM.

#### **Unit II- Financial System- Markets and Institutions:**

Financial system. Banking- Efficiency, regulation, crisis. Securities Markets. Derivatives Market. Bond market.

### **Unit III- Investment Management:**

Fundamental Analysis, Technical Analysis and Efficient Market Hypothesis- empirical evidence and research issues. Asset pricing- Capital Asset Pricing Model and Non Standard forms of CAPM- testing methodologies and empirical evidence.

### **Unit IV- International Finance:**

Introduction to International Finance, An introduction to Exchange Rates, Foreign Exchange Markets, Exchange Rate Determination & Currency Derivatives, International diversification, International Capital Market. Foreign Exchange Risk.

### **Suggested Readings:**

Readings for the course are primarily research papers and those suggested by the concerned faculty from time to time.

## **Paper - II : B : Econometric Applications to Finance [Marks: 50; Lectures: 40]**

Course Description: This is a basic course in Econometric Applications to Finance. The objective of the course is to offer students a better scope of understanding the concepts and tools in time series analysis. The course develops a comprehensive set of tools and techniques for analyzing various forms of time series data and for understanding the current literature in applied time series econometrics.

**Objectives:** At the end of the course, the student should be able to

- Compute and interpret a correlogram and a sample spectrum
- Derive the properties of ARIMA
- Choose an appropriate ARIMA model for a given set of data and fit the model using an appropriate package
- Compute forecasts for a variety of linear models.

**Unit 1:** Classical time series analysis – utility of time series analysis – components of time series data – measurement of trend, seasonality and cycles.

**Unit 2:** Tools of modern time series analysis – stochastic and stationary process – tests of stationary – trend vs difference stationary process – Dickey-Fuller and augmented Dickey-Fuller tests – spurious regression and co-integration of time series – Engle-Granger test – CRDW test – error correction mechanism.

**Unit 3:** Univariate time series analysis and forecasting – linear time series analysis – autocorrelation function and partial auto-correlation function – auto-regressive (AR) models,

moving average (MA) models, Box-Jenkins (BJ) ARMA and ARIMA models – identification – estimation and forecasting with ARIMA models – economic applications.

**Unit 4:** Multivariate time series analysis and forecasting – vector autoregressive (VAR) models –advantages and problems – estimation and forecasting with VAR – impulse response function – Johansen Co-integration test on VAR – Granger causality test.

**Unit 5:** Modeling volatility and auto-correlation in time series – motivation and test for non-linearity –historical and implied volatility – auto-regressive conditional heteroscedasticity (ARCH) model –Generalized ARCH model.

**Suggested Readings:**

Box, G.E.P., Jenkins, G.M. and Reinsel, G.C. (1994). Time Series Analysis: Forecasting and Control, 3rd Edition, Prentice Hall, New Jersey.

Enders, W. (2014) Applied Econometric Time Series. 4th Edition. John Wiley, New York.

I.Gusti Ngurah Agung (2011). Time Series Data Analysis Using EViews, John Wiley & Sons.

James D. Hamilton (1994). Time Series Analysis, 1st Edition, Princeton University Press,

## **Paper - III (CPE-RPE)**

### **Research and Publication Ethics (Theory and Practice)**

#### **THEORY:**

- **RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**

1. Introduction to philosophy: definition, nature and scope, concept, branches
2. Ethics: definition, moral philosophy, nature of moral judgments and relations.

- **RPE 02: SCIENTIFIC CONDUCT (5 hrs.)**

1. Ethics with respect to science and research
2. Intellectual honest and research integrity
3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data.

- **RPE 03: PUBLICATION ETHICS (7 hrs.)**

1. Publication ethics: definition, introduction and importance
2. Best practices/standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflicts of interest
4. Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
5. Violation of publication ethics, authorship and contributor ship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

## **PRACTICE:**

- **RPE 04: OPEN ACCESS PUBLISHING (4 hrs.)**

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright and self-archiving policies.
3. Software tool to identify predatory publications developed by SPPU
4. Journal finder/ journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

- **RPE 05: PUBLICATION MISCONDUCT (4 hrs.)**

### **A. Group Discussions (2 hrs)**

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

### **B. Software tools (2 hrs)**

Use of plagiarism software like Turnitin, Urkund and other open source software tools.

- **RPE 06: DATABASES AND RESEARCH METRICS ( 7hrs.)**

### **A. Databases (4hrs.)**

1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.

### **B. Research Metrics(3 hrs.)**

Impact Factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score.

Metrics: h-index, g index, i10 index, altmetrics

## **References:**

- C. Beall, J. (2012). *Predatory publishers are corrupting open access*. Nature, 489(7415), 179-179. <https://doi.org/10.1038/489179a>
- D. Bird, A. (2006). *Philosophy of Science*. Routledge.
- E. Chaddah, P. (2018). *Ethics in Competitive Research: Do not get Scooped; do not get Plagiarized*. ISBN: 978-938748086
- F. Indian National Science Academy (INSA) (2019). *Ethics in Science Education, Research and Governance*. ISBN: 978-81-939482-1-7. [http://www.insaindia.res.in/pdf/Ethics\\_Book.pdf](http://www.insaindia.res.in/pdf/Ethics_Book.pdf)
- G. MacIntyre, Alasdair (1967). *A Short History of Ethics*. London.
- H. National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
- I. Resnik, D.B. (2011). *What is Ethics in Research & Why is it Important*. National Institute of Environmental Health Sciences, 1-10.