

THE UNIVERSITY OF BURDWAN



DEPARTMENT OF BUSINESS ADMINISTRATION CBCS BASED COURSE CURRICULUM FOR Ph.D. COURSE WORK

PROGRAMME ADMINISTRATION

In order to complete the Ph.D. course work programme, a student is required to obtain 14 credits from two core courses on Research Methodology and Research Ethics, one elective course to be chosen from three such courses and one term paper on literature review and seminar presentation. The credit distribution for the programme is as follows:

- **6 credits** from 2 core courses.
- **4 credits** from 1 elective course to be selected from amongst the elective courses to be offered by the department.
- **4 credits** from term paper and seminar.

The other details relating to the programme based on Choice Based Credit System (CBCS) are as follows:

- A candidate after having been qualified in the written test and viva voce test [only viva voce test for exempted category of candidates as prescribed U. Reg. 4 (Doct.) (2)] shall have to undertake and satisfactorily complete the courses/modules equivalent to one semester Course Work of six months' duration prior to getting registration for Ph.D. programme.
- All candidates admitted to Ph.D. programmes shall be required to complete Course Work prescribed by the Department during the initial one semester.
- The credit assigned to Course Work shall be of **14 credits**.
- A Ph.D. scholar has to obtain a minimum of **55% of marks** in the Course Work in order to be eligible to continue in the programme and submit the thesis.
- A candidate has to choose one elective course from amongst the options available.
- A candidate has to choose for a term paper, which shall be on literature survey/ literature review related to his / her field of research work.
- Grades in the Course Work including Research Methodology courses shall be finalized after a combined assessment by the Research Advisory Committee and the Doctoral Committee.
- Each course carries 100 marks.
- All issues relating to programme administration in the CBCS will be governed by the decision of the Doctoral Committee and the existing rules and regulations of the university.

The curriculum of PhD Course Work under Choice Based Credit System (CBCS) mode comes into effect from the academic session (2020-2021).

CORE COURSES

CWC-101: RESEARCH METHODOLOGY IN MANAGEMENT (RMM) [4 CREDITS]

Unit-I: Nature and Context of Management Research–Formulating a Research Problem–Reviewing the Literature–Reading and interpreting texts and reports in the context of management research–Constructing Hypotheses–Conceptualising and Preparing a Research Design–Types of Data: Qualitative and quantitative–Collecting Data and Coding data–Ethical Issues in Collecting data–Sampling Techniques: Quantitative and Qualitative Aspects– Scaling Techniques and Questionnaire construction.

Unit-II: Summarising Data – Histogram, Stem-Leaf, Box-Whisker, Central Tendency, Dispersion Measuring Shape of data – Skewness and Kurtosis—Measuring Association – Partial and Multiple Correlations— Measuring Causation.

Unit-III: Bivariate Regression and Multiple Regression—Hypothesis testing–Parametric and Non-parametric Tests—Overview of Multivariate analysis.

Unit-III: Qualitative research approaches, relevance and application in management research—Steps to qualitative research study design—Different Qualitative Research Models: History, Living Biography and Self-Narrative; Case study method, Phenomenology and Grounded theory; and Ethnographic Approach in qualitative research study—Qualitative Data Collection and Analysis: Techniques and Tools; Observation and fieldwork; field interviews, structural interviews; projective techniques, WAT. Qualitative Text Analysis and Reporting: Analysis of visual and material text; analysis of verbal data, writing field stories and narrative reports.

Unit-IV: File Creation and Management System—Basic features of Word Processing, text formatting; creating documents— Spread Sheet Solutions – Basic features of Spreadsheets; Data entry, Mathematical Functions, Financial functions, Statistical Functions, Creating charts—Creating Presentations—Working with statistical software—writing a Research Proposal—Writing a Research Report—Reference Styles.

Suggested Readings:

1. Daymon, Christine and Holloway, Immy; Qualitative Research Methods in Public Relation and Marketing Communications; Routledge.
2. Craig; C. Samuel and Douglas, Susan P.; International Marketing Research; John Wiley.
3. Gummesson, Evert; Qualitative Methods in Management Research, Second Edition, Sage.
4. Bim, Robin. J; The Effect Use Market Research: A Guide for Management to Grow the Business, Kogan Page.
5. Malhotra, N.K. and Das, S.B., Marketing Research: An Applied Orientation, Pearson.
6. Kothari, C.R., Research Methodology, New Age International Publishers.

CWC-102: RESEARCH AND PUBLICATION ETHICS (RPE) [2 CREDITS]

Unit-I: Philosophy of Ethics: Introduction to philosophy: Definition, Nature and scope, concept, branches; Ethics: Definition, moral philosophy, nature of moral judgements and reactions.

Unit-II: 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.

Unit-III: Publication ethics: Definition, introduction and importance; Best practices/standards setting initiatives and guidelines: COPE, WAME, etc.; Conflicts 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.

Unit-IV: Open Access Publishing: Open access publications and initiatives; SHERPA/ROMEIO online resource to check publisher copyright & self-achieving policies; Software tool to identify predatory publications developed by SPPU; Journal finder/journal suggestion tool viz., ZAME, Elsevier Journal Finder, Springer Journal Suggester, etc.

Unit-V: Publication Misconduct: Group discussions: Subject specific ethical issues, FFP, authorship; Conflicts 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-VI: Databases and Research Metrics: Databases: Indexing databases; Citation databases: Web of Science, Scopus, etc.; Research Metrics: Impact Factor of journal as per journal Citation report, SNIP, SJR, IPP, Cite Score; Metrics: h-index, g index, i10 index, altmetrics.

References:

1. Bird, A. (2006). Philosophy of Science. Routledge.
2. MacIntyre, Alasdair (1967) A Short History of Ethics. London.
3. P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978- 9387480865
4. 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.
5. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), ISBN: 978-81-939482-1-7. <http://www.insaindia.res.in/pdf/Ethics>.

Suggested Readings:

1. Paul Oliver, The Student's Guide to Research Ethics, Open University Press.
2. Kandy Woodfield, The Ethics of Online Research, Emerald Publishing Limited
3. Donna M. Velliaris, Handbook on Research on Academic Misconduct in Higher Education, IGI Global.
4. Rafael Ball, Handbook Bibliometrics, De Gruyter.
5. Francisco J. Cantu-Ortiz, Research Analytics Boosting University Productivity and Competitiveness Through Scientometrics, CRC Press.
6. Lexi Rubow, Brianna Schofield, Rachael Shen, Understanding Open Access When, Why, Et how to Make Your Work Openly Accessible, Author's Alliance.
7. Adil E. Shamoo, David B. Resnik, Responsible Conduct of Research, Oxford University Press.
8. Information Resources Management Association, Scholarly Ethics and Publishing: Breakthroughs in Research and Practice, IGI Global.
9. Melanie Mauthner, Maxine Birch, Tina Miller, Julie Jessor, Ethics in Qualitative Research, Sage Publication.

CWC-103: TERM PAPER ON LITERATURE REVIEW [4 CREDITS]

ELECTIVE COURSES

CWE-104: CONTEMPORARY ISSUES IN BUSINESS RESEARCH (CIBR) [4 CREDITS]

Unit-I: Critical analysis of the theoretical perspectives on business research and business enterprise research—Understanding a Business Enterprise as a social system and as a system of functional areas— People and technology issues in managing business enterprises.

Unit-II: Experimental Design—Consumer Behaviour Models—Market Share and Market Potential Analysis—Case Study in Marketing—Industrial Marketing: Model Based Analysis—Rural Marketing: Recent Trends—Integrated Marketing Communication: Tools and techniques—Retail Marketing: Consumer Relationship Management and Logistical Issues.

Unit-III: Historical contextualisation of Human resource management: Theoretical and research perspectives—Issues involving the linkage between human resource (HR) and organisational perspectives and competitive advantage—Planning and implementation of HR strategies: Strategic HR Planning, Staffing, Human Resource Development, Performance management and measurement, Strategic reward systems, Employment relations etc.— Overview of contemporary issues like Human Capital Measurement & Management, HR Analytics, International HRM, Corporate Social Responsibility and HR interface etc.

Unit-IV: Risk & Return: Capital Asset Pricing Model, Arbitrage Pricing Theory, Multifactor Linear Model—Valuation aspects of Financial Engineering : Concept of Continuously Compounded Risk free return, Valuation of Futures, Valuation of Option; Black Scholes Option Pricing Mode, Binomial Model—Financial Engineering Strategies: Strategies with Futures, Options, Swap; Interest rate and currencies—International Finance /Foreign Exchange Management: Direct & Indirect quote; Arbitrage, Triangular, Forward market, Theories on International Finance—Understanding Corporate Financial Reporting: Cash flow statement, Revenue Statement, Balance sheet, Notes to Accounts, SEBI LODR, Ind As, IFRS: Relevant provisions. Recommendations and guidelines from Institute of Chartered Accountants of India.

Unit-V: Application of Nature Based Techniques as Optimization Methods - Genetic Algorithm, Particle Swarm Optimization, Ant Colony Optimization, Artificial Immune Algorithm, Simulated Annealing, Tabu Search; Other Miscellaneous Nature Based Algorithms—Probabilistic and Fuzzy Orientation of Various Optimization Techniques; Advances in Simulation Optimization—Agent Based Techniques; Concepts of Cellular Manufacturing, Common-Sense Manufacturing, Agent based manufacturing, Holonic Manufacturing System, Agile manufacturing, Lean manufacturing, Computer Integrated manufacturing, Collaborative Manufacturing, Cooperative manufacturing, Cycle time management, Bionic Manufacturing, E-manufacturing, Flexible Manufacturing System, Virtual Manufacturing, World Class Manufacturing—Concepts of Smart Manufacturing; Components of Smart Manufacturing; Required Skills and Knowledge.

Suggested Readings:

1. Gareth Jones and Jennifer George, Contemporary Management, Mc Graw Hill.
2. Michael Armstrong, Human Capital Management, Kogan Page.
3. Discrete and Continuous Simulation: Theory and Practice; Susmita Bandyopadhyay and Ranjan Bhattacharya; CRC Press, Florida, 2014.
4. Handbook of Production Management Methods; Authors: Gideon Halevi; Publisher: Butterworth Heinemann, 2001.
5. Challenges for Technology Innovation: An Agenda for the Future: Proceedings of the International Conference on Smart Manufacturing (S2M 2016), October 20-22, 2016, Lisbon; CRC Press, 2017.

CWE-105: INTRODUCTION TO BUSINESS DATA ANALYTICS (IBDA) [4 CREDITS]

Unit-I: An Overview of Econometric Analysis, Problems in Regression; An Introduction to Time Series Analysis.

Unit-II: Stationary Time Series models: ARMA models, Stationarity, Autocorrelation and Partial Autocorrelation function, Box-Jenkins methodology-model Selection and Forecasting; Non-stationary Time Series models: Deterministic and stochastic trend models, Unit root test and Regression Residuals, Stationarity tests, Tests for structural change, Estimation of linear models, Panel Unit root tests.

Unit-III: Stationary Multivariate Models: Dynamic simultaneous equations models, Transfer function models, VAR analysis, Estimation and Identification, Granger causality, Impulse response function, Variance decompositions, Structural VAR models—Non-stationary Multivariate models: Co-integration and Error correction models, Testing for co-integration, Characteristic root and co-integrating rank, VECMS, Structural VAR models with co-integration.

Unit-IV: Measuring/ Modelling Volatility: Basic features of Time Series Data, ARCH model, GARCH model, ARCH-M, Maximum Likelihood estimation of GARCH and ARCH-M model, IGARCH, TGARCH and EGARCH models and their features.

Unit-V: Micro econometric Models: LPM, Binary Logit and Probit models, Tobit models for truncated variables, Logit model Estimation, Interpretation and Application.

Suggested Readings:

1. Chris Brooks, Introductory Econometrics for Finance, Cambridge University Press.
2. Econometrics By Example, Damodar Gujarati, Palgrave Macmillan.
3. Principles of Econometrics, Sankar Kumar Bhowmik, Oxford University Press.
4. The Econometrics of Financial Market, John Y Campbell, Andrew W Lo & A Craig Mackinlay, Princeton University Press.

CWE-106: PROGRAMMING AND COMPUTER APPLICATIONS IN BUSINESS RESEARCH (PCABR) [4 CREDITS]

Unit-I: Basics of Software, hardware and Programming – Flow Charts and Structured English; Introduction to C Language.

Unit-II: Introduction to Computation Software – Various Components; Introduction to EViews; Introduction to Minitab software.

Unit-III: Introduction to Simulation; Various Simulation Packages; Introduction to Arena—Simulation Software; Introduction to R Software.

Unit-IV: Introduction to System Dynamics; Introduction to various software in Systems Dynamics.

Unit-V: Brief Introduction and Directions to languages like C++, C# etc.

Suggested Readings:

1. Microsoft Office Excel 2007 Step by Step; Author: Curtis D. Frye; Microsoft Press.
2. Let Us C, Yashavant Kanetkar; BPB Publications, 15th Edition, 2016.
3. Computer Fundamentals and Programming in C, Reema Thawareja; Oxford University Press, 2nd Edition, 2016.
4. Minitab User's Guide 2: Data Analysis and Quality Tools, Release 13; Minitab Inc., 2000.

5. Simulation Modelling and Analysis; Authors: Averill M. Law and David W. Kelton; McGraw Hill Inc., US, 3rd Revised Edition, 1999.
6. Discrete and Continuous Simulation: Theory and Practice; Susmita Bandyopadhyay and Ranjan Bhattacharya; Publisher: CRC Press, Florida, 2014.
7. The Principles of Systems (Systems Dynamics Series); Author: Jay W. Forrester; Productivity Press, 1995.
8. Simulation Modelling and Arena; Author: Manuel D. Rossetti; Wiley-Blackwell, 2nd Revised Edition, 2015.
9. Microsoft Visual C# Step by Step; Author: Sharp John; Microsoft Press, 2016.
