

Academic Syllabus

(With effect from 2021-22 Admission Batch)

Ph.D Coursework
(In Business Administration)



UTKAL UNIVERSITY
BHUBANESWAR

Ph.D. Coursework (in Business Administration)

Course structure

Each paper Carry 100 marks. Classes may be held in Blended Mode (Online and Offline).

Paper -I :Research Methodology

Paper-II :Computer Application Relevant to Business Administration

Paper-III : Research And Publication Ethics

Paper-IV : Research Proposal/Project Work

DETAILED SYLLABUS

Paper I: Research Methodology (100 marks)

Objectives

1. To understand the process of research so as to develop a research plan in one's field of interest.
2. To be able to adopt a sampling design and use/develop tools for collecting data to meet the objectives of one' research.
3. To be able to statistically analyse and interpret data, make tabular and diagrammatic presentations and prepare research reports for sharing with the interested others.

Course Outcomes:

After the completion of the course, the students will be to:

- a) Learn the basics of conducting Business Research, the process and research design.
- b) To conduct a meaningful review of relevant literature for research work.
- c) To understand the sampling framework, data collection process, analysis of collected data and report writing.

Unit I: Scientific Research: Research: Meaning, Scope, Significance and Objectives; Nature and Aims of Business Research; Scientific Method: Characteristics and Limitations; Concepts, Constructs, Variables, Theory, Models/Paradigms; Conceptual and Operational Definitions, Types of Variables.

Unit II: Research Process: Problem Formulation; Hypotheses- Meaning, Nature, Types, Research designs – Purpose and Types; Data Collection – Primary, Secondary, Quantitative and Qualitative, Measurement Scales, Rating and Ranking Scales and Scale Construction; Characteristics of Good Measuring Instrument- Reliability, Validity, Efficiency, Objectivity, Standardization; Data Analysis- Descriptive, Inferential; Interpretation and Conclusion; Reporting the Results; Characteristics of Good Research.

Unit III: Review of Literature :Developing an outline for the literature review; Identifying Key sources of Literature; Formulate key questions for review; Critically reviewing the literature; Styles of Referencing and Citations.

Unit-IV: Sampling Design, Data Collection and Analysis: Sampling Designs – Meaning, Types, Probability and Non-Probability Sampling, Data Collection Tools – Observation, Questionnaire, Interview, Focus Group Discussion, Case Study, Experimentation. Data Editing and Tabulation; Graphic Presentation. Testing Hypotheses – Logic of Hypothesis Testing, Significance Level, Region of Rejection, Type I and Type II Errors; z-test, t-test; ANOVA; Measures of Association- Correlation (product-moment, rank-order), Regression, Chi-Square; Parametric and Non-parametric tests. Multivariate Analysis.

Unit V: Report Writing: Significance and Types; Steps in Report Writing; Layout of Research Report; Executive Summary; Presentation of Results; Writing style, Guidelines for Report Writing, Precautions, Bibliography, Appendices.

References

1. Bhattacharya, D.K., Research, Excel Books, New Delhi 2nd Edition 2006
2. Kothari, C.R., Research Methodology, New Age International Publishers.
3. Fundamentals of Statistics, S. C. Gupta, Himalaya Publishing House, 7/e, 2012.
4. Research Methodology: Concepts and Cases – Deepak Chawla & Neena Sondhi, Vikas, 2011
5. Marketing Research by Naresh K. Malhotra, Pearson publishers, 2012
6. Business Research Methods–Donald R. Cooper & Pamela S Schindler, 9/e, TMH, 2007.
7. Statistics for Business and Economics - Anderson, Sweeney, William, 11/e, Cengage Learning, 2012.
8. Methodology of Research in Social Sciences – Krishnaswami O. R, Ranganatham M, HPH, 2007.
9. Statistics for Management, Levin and Rubin.

Paper-II. Computer Application Relevant to Business Administration

Course Objectives

The objectives of the course are to

1. Provide basic knowledge of Internet and Web tools for research
2. Impart knowledge of MS Office and SPSS packages for research activities
3. Introduce basic concepts of Data Science and Machine Learning in Business and Research

Course Outcomes:

After the completion of the course, the students will be to

1. Apply the Internet and Web tools in various stages of research
2. Use MS Office package for data analysis, report writing and presentation.
3. Recognize the use of data science and machine learning in business and research
4. Demonstrate data analysis tasks using SPSS package.

Unit-1. Internet and World Wide Web for Research

Basics of Internet and World Wide Web, Use of web tools for research: search engines, content curators, research databases, reference managers, writing tools, plagiarism checkers, research collaboration tools and platforms, publishing tools, journal advisor, paper repositories.

Unit-2. Office Package for Research

MS Excel for Data Analysis: Editing and Formatting Worksheets; Performing Basic Calculations; Sorting, Filtering, Pivot Table, subtotal and consolidation, what-if analysis, goal seek, Working with Charts, Use of Analysis ToolPak, Solver.

MS Word for Report Writing: Basic editing, commenting, proof reading, document enhancing, footnote, endnote, creating table of contents, creating table of figures, managing citation and bibliography, indexing.

MS Power Point for Report Presentation: Basics of creating and editing a slide, slide design, template, slide transition, animation.

Unit- 3. Data Science and Machine Learning

Overview of Data Science and Data Analytics, Types of Analytics, Types of Data: Structured, semi-structured, Unstructured, Big Data, Data Science Process, Introduction to Machine Learning and Model Building: Types of Machine Learning, Supervised, Unsupervised, Modelling Process, Classification, Regression, Time Series Analysis, Clustering, Association Rules Mining, Model evaluation and selection.

Unit- 4. Learning Software Packages Specific to the Subject:

Creation of Questionnaire Online, Analysis and Interpretation of Data, Construction of Charts, Diagrams, Sharing of Information Online with Respondents, etc. using the following Online Tools: i) Google Docs; ii) Survey Moneys; andiii) SPSS Package;

Unit- 5. Practical Components: Data set using MS Excel and SPSS

Draw all types of Diagrams and Graphs, ANOVA, Measures of Central Tendency, Measures of Dispersion, Correlation and Regression, Test of Significance (Z-Test, t-test, F-test Values), Hypothesis Testing and Multivariate Analysis.

RECOMMENDED BOOKS:

1. Practical Statistics for Data Scientists by Peter Bruce and Andrew Bruce, O'Reilly, 2017
2. Introducing Data Science, by Davy Cielen, Arno D. B. Meysman, Mohamed Ali, Manning Publications, 2016.
3. Doing Data Science by Rachel Schutt and Cathy O'Neil, O'Reilly, 2014
4. Data Analysis Using SPSS by LokeshJasrai, Sage Publication, 2020

REFERENCE BOOKS:

1. Data Science for Business, by Foster Provost and Tom Fawcett, O'Reilly, 2013.
2. Microsoft Excel 2019 Data Analysis and Business Modeling, 6th Edition, by Wayne Winston, The Microsoft Press, 2019
3. Data Analysis and Decision Making 4th Edition, by S. Christian Albright, Wayne Winston, Christopher Zappe, Cengage Publishing, 2011
4. Information Technology for Management: Transforming Organizations in the Digital Economy - Efraim Turban, & Linda Volonino. 7/e, Wiley India. 2007.
5. MIS Managing Information Systems in Business, Government and Society - Rahul De ,1/e, Wiley India, 2012.

Paper-III : Research And Publication Ethics (100 marks)

Objective:

- a) To make the participants aware about the importance of ethics in general and publication ethics.
- b) To learn about Open access publishing dangers of publication misconduct
- c) To get a hands-on experience on Identifying Predatory publications, Journal finders, Plagiarsim tools, indexing and citations.

Unit-1 : Philosophy, Ethics, and Scientific Conduct : Introduction to philosophy: definition, nature and scope, concept and branches; Ethics: definition, moral, philosophy, nature of moral judgment and reactions; ethics with respect to science and research, intellectual honesty and research integrity; scientific mis-conduct: falsification, fabrication and plagiarism (FFP); redundant publications: duplicate and overlapping publications, salami slicing; selective reporting and misinterpretation of data.

Unit-2: Publication Ethics : Publication ethics: definition, introduction and importance; best practices/standard setting initiatives and guidelines: COPE,WAME,etc.; conflicts of interest; publication misconduct:definition, concept, problems that lead to unethical behavior and vice-versa, types; violation of publication ethics, authorship and contributions; identification of publication misconduct, complaints and appeals; predatory publishers and journals.

Unit-3: Open Access Publishing : Open access publications and initiatives; SHERPA/RoMEO online resources to check publisher copyright 7 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, etc.

Unit-4: Publication Misconduct :Subject specific ethical issues, FFP, authorship; conflicts of interest; complaints and appeals: examples and frauds from India and abroad. Use of Plagiarism software like Turnitin, Urkund and open source software tools.

Unit-5: DataBases and Research Metrics: Indexing databases; citation databases: web of science, scopus, etc.; impact factor of journal as per Journal citation report, SNIP,SJR, IPP, Cite Score ; Metrics: h-index, g index, i-10 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 plagiarised, ISBN: 978-9387480865
4. National Academy of Sciences, National Academy of Engineering and Instiute of Medicine (2009), On being a Scientist: A guide to responsible conduct in research, Third Edition, National Academic Press.
5. Resnik, D.B. (2011), What is ethics in research and why it is important?, National Institute of Environmental health sciences.
6. Beall,J. (2012), Predatory Publishers are corrupting open access, Nature, 489 (7415), 179.
7. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019).

Paper-IV : Research Proposal/Project Work (100 marks)

The candidates have to undergo a research work and submit the Research Proposal/ Project Report, the Evaluation will be based on Report and Viva-voce.