

Syllabus For Ph.D Coursework

(In Personnel Management & Industrial Relations)

(With effect from 2021-22 Admission Batch)



DEPARTMENT OF PERSONNEL MANAGEMENT & INDUSTRIAL RELATIONS

UTKAL UNIVERSITY

BHUBANESWAR

Ph.D. Coursework (Personnel Management & Industrial Relations)

Course structure

Each paper Carry 100 marks.

PAPER	SUBJECT
Paper -I	Research Methodology & statistics
Paper-II	Computer Application Relevant to PM & IR
Paper-III	Research And Publication Ethics
Paper-IV	Dissertation /Project Work

DETAILED SYLLABUS

Paper I : Research Methodology and Statistics(100 marks)

Unit I : Scientific Research : Characteristics, Aims, Types and Methods.

Unit II : Concepts, Constructs and Variables: Conceptual and operational definitions, units of analysis. Types of variables. Hypothesis : meaning, nature, types, testing of hypothesis, X² (Chi-square), and F-tests, Analysis of Variance, Covariance, formulation of research design, meaning of research design, functions and characteristics of good research design,. Selection of research topic, Book Review.

Unit III: Methods and techniques of data collection: Pilot study, Sampling methods. Questionnaire and Schedule. Interview, observation, case study, Focused Group Interview.

Unit IV: Statistical concepts and test of hypothesis: Application of Statistical Concepts/Procedures: Data: Diagrammatical Representation of data: Probability. Measures of central tendency: mean, median, mode Measures of Dispersion and association: standard deviation, standard error, correlation and regression analysis - meaning and uses, methods of calculation of coefficients and their analysis and implication. sampling distribution, sampling schemes and sample sizes, confidence interval for the mean, t-statistic, z-statistic, confidence interval for the population variances, hypothesis testing, test of hypothesis for the population mean, population variance and ratio of two population variances; applications of z-test, t-test, f-test and chi-square test, association of attributes and techniques of testing, ANOVA.

Unit IV: Use of Computer softwares in management research.

Paper-II. Computer Application Relevant to PM & IR

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.

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

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.

Paper IV: Synopsis & Presentation (100 marks)

The candidates have to prepare a synopsis of research work, submit the Report and give presentation. Evaluation will be based on Quality of synopsis and Presentation.
