# PhD (School Of Management)

## Mission Statement

Creating and disseminating path breaking knowledge, concepts, and tools which advance the understanding and practice of management.

## Program Objectives:

1] To provide scholars with necessary skills to identify and research complex issues in the field of management in real life world.

2] To contribute to the creation, transmission and application of knowledge in the field of management.

3] To do research and to contribute to publications of international standard in inter-disciplinary areas of management that will add value to the society and to the body of knowledge.

4] To meet the teaching and research manpower needs of academia and industry by producing highly skilled individuals with exceptional analytical ability and training in conducting applied research.

## Program Learning Outcomes:

1] Develop substantive knowledge in their area of specialization.

2] Master the analytical and methodological skills required to evaluate and conduct research in their area of specialization and related areas.

3] Design and conduct original research in their area of specialization.

4] Demonstrate the ability to communicate the results of their research in a clear and effective manner.

5] Demonstrate an understanding and concern for the high ethical standards in business research, teaching, and service.

## CURRICULUM STRUCTURE

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| **Program: PhD (School Of Management)** |
| **Total Credits: 21** |
| **UGC Prescribed Credits: 12 to 16** |

### SEMESTER I

| | Course Code | Course Name | Periods | | | Credits |
|---|---|---|---|---|---|---|
| | | | L | T | P | |
| 1 | **PHDM 101** | **Research Methodology** | **4** | **0** | **0** | **4** |
| 2 | **PHDM 102** | **Statistics** | **4** | **0** | **0** | **4** |
| 3 | **-** | **Core Course - 1** | **3** | **0** | **0** | **3** |
| 4 | **-** | **Core Course - 2** | **3** | **0** | **0** | **3** |
| **Total Credits** | | | **14** | **0** | **0** | **14** |
| **Total Contact Hours** | | | **14** | | | |

### SEMESTER II

| | Course Code | Course Name | Periods | | | Credits |
|---|---|---|---|---|---|---|
| | | | L | T | P | |
| 1 | **PHDM 103P** | **Statistical Packages for Research in Management** | **0** | **0** | **4** | **2** |
| 2 | **PHDM 104** | **Research & Publication Ethics** | **2** | **0** | **0** | **2** |
| 3 | **PHDM 105** | **Comprehensive Viva** | **-** | **-** | **-** | **1** |
| 4 | **PHDM 106** | **Seminar** | **-** | **-** | **-** | **2** |
| **Total Credits** | | | **2** | **0** | **2** | **7** |
| **Total Contact Hours** | | | **6** | | | |

## PROGRAM SYLLABI

| Course: RESEARCH METHODOLOGY | | | Semester : I |
|---|---|---|---|
| Course Code: PHDM- 101 | L T P | 4 0 0 | Credits: 4 |

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| **OBJECTIVE** | The purpose of this course is to enable the students understand the fundamentals of research methodology and use them in their research endeavour | | |
| **LEARNING OUTCOME** | 1. To understand the purpose of research, identify a research problem/ need, translate it into a research question and design an appropriate way to answer it<br>2. To identify and understand the main qualitative and quantitative methods of business research, their merits and demerits and appropriate application areas.<br>3. To develop skills in choosing suitable sampling technique, measurement scales, questionnaire design, conducting interviews, surveys and leading focus groups.<br>4. To formulate testable hypothesis and choose the most appropriate tools for testing them, develop skills of quantitative data analysis and interpretation of its results<br>5. To communicate research findings and their implications in a clear and well organized way, both orally and in writing. | | |
| **COURSE DETAILS** | **Module no** | **Topic** | **Hours** |
| | 1. | **Introduction**<br>Scientific investigation, Statistics in scientific inquiry, Research philosophy: Positivism, Realism, Interpretivism, Pragmatism, Basic research and applied research, Research design and internal validity, Qualitative Research Strategy: Case Study, Ethnography, Focus Groups, Depth Interview, Projective Techniques, Quantitative Research Strategy: Survey, Experiment, Observation, Content Analysis, The research process, Planning a research project and formulating research questions, Structuring the research proposal, Review of literature, searching data bases, Issue of plagiarism, Case study approach. | 10 |
| | 2. | **Measurement and Scaling**<br>Theory of measurement, Comparative scaling, Primary scales of measurement, Non-comparative scaling, Questionnaire design: Questionnaire design process, Focus group discussion, Pre-testing questionnaire, Construct validity and reliability | 8 |

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| | 3. | **Sample Design and Data Collection**<br>Census and sample, Sampling design process and external validity, Classification of sampling techniques: probability and non-probability sampling techniques, Sample size determination, Data collection process, Online data collection, and Interaction content on web | 8 |
| | 4. | **Inferential Statistics and Multivariate Methods**<br>Sampling Distribution, 1-Sample Kolmogorov-Smirnov, z-test, Test of significance, t-test, Analysis of Variance (ANOVA), Simple linear regression, Multivariate regression, Moderation and mediation, Classification methods, Logistic, Binary, Probit, Factor Analysis, Cluster Analysis, Multi Dimensional scaling, MANOVA, Structured Equation Modelling. | 20 |
| | 5. | **Nonparametric Statistics**<br>Chi-Square Distributions, Wilcoxon rank-sum test and Mann-Whitney test, Kruskal-Wallis test, Rank Correlation, Goodness-of-Fit Tests. | 10 |
| | | **Total hours** | **56** |
| **TEXT BOOK** | 1. Saunders; *Research Methods for Business Students;* Pearson Education<br>2. William M.K. Trochim; *Research Methods*; Bizantra | | |
| **REFERENCE BOOK/ SUGGESTED READING** | 1. V. Kumar: *International Marketing Research;* Prentice Hall of India<br>2. Hair, Anderson, Tatham and Black; *Multivariate Data Analysis;* Pearson Education<br>3. Michael, S. Lewis-Beck, Bryman, Alan E. and Tim, Futing Liao; *The Sage encyclopedia of Social Science Research Methods;* Sage Publications<br>4. Sherri, L. Jackson; *Research Methods: A Modular Approach;* Thomson Wadsworth<br>5. Yin, Robert K.; *The Case Study Anthology;* Sage Publications<br>6. Kaplan, David; *Structural Equation Modeling: Foundations and Extensions;* Sage Publications<br>7. Denzin N. K. and Lincoln Y. S., "The *Sage Handbook of Qualitative Research*", Sage Publications.<br>8. Alvesson M. and Skoldberg K., "*Reflexive Methodology New Vistas for Qualitative Research*", Sage Publications | | |

| Course: STATISTICS | | | Semester: I |
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| Course Code: PHDM-102 | L T P | 30 2 | Credits: 4 |

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| **OBJECTIVE** | To familiarize the students with the concepts of Statistics and their Applications | | |
| **LEARNING OUTCOME** | 1. Portray and examine the key terminology, concept tools and techniques used in statistical analysis<br>2. To develop basic skills for quantitative application in business situations.<br>3. Discuss critically and conduct basic statistical analysis of data and its uses and limitations<br>4. Critically estimate the underlying assumptions of analysis tools<br>5. Choose a statistical method for solving practical problems | | |
| **COURSE DETAILS** | **Module no** | **Topic** | **Hours** |
| | 1. | **Sampling and Estimation**<br>Introduction to sampling, Random sampling, Introduction to sampling distributions, Point estimates, Interval estimates and Confidence Intervals, Calculating Interval Estimates of the Mean for large and small sample sizes, determining the sample size in estimation. Lab exercises on MS Excel and SPSS | 8 |
| | 2. | **Hypotheses Testing**<br>Introduction, Concepts basic to Hypothesis Testing, Hypothesis testing of Means when the population Standard Deviation is known and not known, Measuring power of Hypothesis Test, Hypothesis Testing for differences between Means for large, small samples and dependent samples, Probability values another way to look at Hypothesis Testing. Lab exercises on MS Excel and SPSS | 14 |
| | 3. | **Chi- Square and Analysis of Variance**<br>Introduction, Chi – Square as a Test of Independence, Chi – Square as Test of Goodness of Fit: Testing the Appropriateness of Distribution, Analysis of Variance, The Complete Randomized Design (One Way ANOVA), Multiple Comparison Tests, Factorial Design (Two Way ANOVA). Lab exercises on SPSS | 14 |
| | 4. | **Non Parametric Methods**<br>Introduction to Non Parametric Statistics, The Sign Test for Paired Data, Rank Sum Tests: The Mann Whitney U Test and the Kruskal Wallis Test, The One Sample Runs Test, The Kolmogorov – Smirnov Test. Lab exercises on SPSS. | 12 |

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| | 5. | **Regression & Correlation Analysis**<br>Linear Regression**:** Statistical Inferences in Linear Regression, Multiple Regression, Going beyond a single Explanatory Variable, Significance Testing and Goodness of Fit, and working with Qualitative Variables. Pearson's and Spearman Rank Correlation. | 10 |
| | 6. | **Time Series and Forecasting**<br>Introduction, Variation in Time Series, Trend Analysis, Cyclical Variation, Seasonal Variation, Irregular Variation, Problem solving involving All Four Components of a Time Series, Time Series Analysis in Forecasting. | 12 |
| | | **Total hours** | **70** |
| **TEXT BOOK** | 1. Levin, R. I., Rubin D.S., Rastogi S., Siddiqui, M.H.; *Statistics for Management;* Pearson Education<br>2. Ken Black.; *Business Statistics: For Contemporary Decision Making*; John Wiley & Sons | | |
| **REFERENCE BOOK/ SUGGESTED READING** | 1. Aczel, Amir. D, , Sounderpandian, J, Saravanan, P; *Complete Business Statistics;* McGraw Hill, 2017<br>2. Carver, R. H., Nash, J.G.; *Doing Data Analysis with SPSS*; Cengage learning | | |

| Course: STATISTICAL PACKAGES FOR RESEARCH IN MANAGEMENT | | | Semester: II |
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| Course Code: PHDM 103P | L T P | 0 0 4 | Credits: 2 |

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| **OBJECTIVE** | To enable the students to choose appropriate experimental and sampling designs, use elementary statistical methods to analyze data and draw inferences, use SPSS statistical software, and write statistical reports using correct terminology, analysis, and graphs. | | |
| **LEARNING OUTCOME** | 1. To read-in, enter, organize, and save data in a suitable way.<br>2. Calculate/recode variables and prepare data for analysis.<br>3. Conduct descriptive and basic inferential statistics.<br>4. To become familiar with SPSS presentation of statistical output.<br>5. To create and edit graphical displays of data | | |
| **COURSE DETAILS** | **Module no** | **Topic** | **Hours** |
| | 1. | **SPSS-An Overview**<br>Mouse and keyboard processing, Frequently used dialog boxes, Editing output, Printing results, Creating and editing a data file, Importing data from Excel files | 2 |
| | 2. | **Data Management using SPSS:**<br>Listing cases, Replacing missing values, Computing new variables, Recording variables, Exploring data, Selecting cases, Sorting cases, Merging files, Questionnaire design for data entry, Types of scales, Selecting cases, Recoding variables, Creating new variables, Treatment of missing data, Merging files, Reliability analysis of data and Scales, Data cleaning: finding and treating outliers, Levene's test for homogeneity of variances. | 14 |
| | 3. | **Inferential Statistics and Multivariate Analysis using SPSS**<br>Sampling Distribution, 1-Sample Kolmogorov-Smirnov, z-test, Test of significance, t-test, Analysis of Variance (ANOVA), Simple linear regression, Multivariate regression, Moderation and mediation, Classification methods, Logistic, Binary, Probit, Factor Analysis, Cluster Analysis, Multi-dimensional scaling, MANOVA. | 14 |
| | 4. | **Nonparametric Statistics**<br>Chi-Square Distributions, Wilcoxon rank-sum test and Mann-Whitney test, Kruskal-Wallis test, Rank Correlation, Goodness-of-Fit Tests. | 12 |

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| | 5. | **Structural Equation Modelling with AMOS**<br>Overview, Causality, Background, SEM basics, SEM estimation, Testing Fit, Non-recursive models, Meas Models/CFA Spring break Hybrid models, SEM strategies, Traps, Categorical Data Special Models. | 14 |
| | | **Total hours** | **56** |
| **TEXT BOOK** | 1. Andy Field; Discovering Statistics using IBM SPSS Statistics; Sage Publications<br>2. Bryman, Alan and Duncan Cramer; Quantitative Data Analysis with SPSS for Windows: A Guide for Social Scientists; McGraw Hill. | | |
| **REFERENCE BOOK/ SUGGESTED READING** | 1. Sweet Stephen A.; *Data analysis with SPSS;* Allyn and Bacon<br>2. Barbara M. Byrne; *Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming*; Routledg**e** | | |

| Course: RESEARCH AND PUBLICATION ETHICS | | | SEMESTER: II |
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| Course Code: PHDM-104 | L T P | 2 0 0 | Credits: 2 |

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| **OBJECTIVE** | This course is through blended sessions of theory and practice is focused on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course. | | |
| **LEARNING OUTCOME** | 1. To be able to describe and apply theories and methods in ethics and research ethics<br>2. To acquire an overview of important issues in research ethics, like responsibility for research, ethical vetting, and scientific misconduct.<br>3. To acquire skills of presenting arguments and results of ethical inquiries. | | |
| **COURSE DETAILS** | **Module no** | **Topic** | **Hours** |
| | 1 | **PHILOSOPHY AND ETHICS (THEORY SESSIONS)**<br>• Introduction to philosophy: definition, nature and scope, concept, branches<br>• Ethics: definition, moral philosophy, nature of moral judgments and reactions | 4 |
| | 2 | **SCIENTIFIC CONDUCT (THEORY SESSIONS)**<br>• Ethics with respect to science and research<br>• Intellectual honesty and research integrity<br>• Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)<br>• Redundant publications: duplicate and overlapping publications, salami slicing<br>• Selective reporting and misrepresentation of data | 4 |
| | 3 | **PUBLICATION ETHICS (THEORY SESSIONS)**<br>• Publication ethics: definition, introduction and importance<br>• Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.<br>• Conflicts of interest<br>• Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types<br>• Violation of publication ethics, authorship and contributor ship<br>• Identification of publication misconduct, complaints and appeals<br>• Predatory publishers and journals | 7 |

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| | 4 | **OPEN ACCESS PUBLISHING (PRACTICE SESSIONS)**<br>• Open access publications and initiatives<br>• SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies<br>• Software tool to identify predatory publications developed by SPPU<br>• Journal finder/journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggested, etc. | 4 |
| | 5 | **PUBLICATION MISCONDUCT (PRACTICE SESSIONS)**<br>(A) Group Discussions (2 hrs.)<br>1. Subject specific ethical issues, FFP, authorship<br>2. Conflicts of interest<br>3. Complaints and appeals: examples and fraud from India and abroad<br>(B) Software tools (2 hrs.) :Use of plagiarism software like Tumitin, Urkund and other open source software tools | 4 |
| | 6 | **DATABASES AND RESEARCH METRICS (PRACTICE SESSIONS)**<br>**Databases** (4 hrs.)<br>1. Indexing databases<br>2. Citation databases: Web of Science, Scopus, etc.<br>**Research Metrics** (3 hrs.)<br>3. Impact Factor of journal as per Journal Citation Report, SNIP, SIR, IPP, Cite Score<br>4. Metrics: h-index, g index, i10 index, altmetrics | 7 |
| | | **Total Hours** | **30** |

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| **SUGGESTED READINGS** | 1. Oliver P**, "***The Student's Guide to Research Ethics*", Open University Press, 2003<br>2. Todorovich M, Kurtz P, "*The Ethics of Teaching and Scientific Research*", Miro Torovich; Paul Kurtz; Sidney Hook Prometheus Books, 1977<br>3. Stanley B. H., Sieber J. E., Melton G. B., "*Research Ethics: A Psychological Approach*", University of Nebraska Press, 1996<br>4. Salzano F. M., Hurtado A. M.*," Lost Paradises and the Ethics of Research and Publication",* Oxford University Press, 2004 |