

### Structure of Master of Philosophy (MPhil) Programme

<b>Part</b>	<b>Course</b>	<b>Course Code</b>	<b>No. of Hrs.</b>	<b>Marks</b>	<b>Credits</b>
1	Research Methodology	RMM131	60	100	6
	Contemporary Practices in Management and Economics	RMM231	45	100	4
	Elective 1: Advanced Business Research Techniques	RMM232A	45	100	4
	Elective 2: Applied Econometrics	RMM232B	45	100	4
2	Dissertation		up to 12 months	200	10

## **RMM131-RESEARCH METHODOLOGY**

**Total Teaching Hours For Semester:60      No of Lecture Hours/Week:8**

**Max Marks:100      Credits:6**

### **Course Objectives/Course Description**

This course is aimed at providing the basic understanding of the Research methodology. The course will explain the need for scientific research methodology and describes the various research designs

### **Learning Outcome**

At the end of the course the student will be able to choose the right research methodology of the type of research problem. Students will be able to demonstrate skill in performing statistical and research analysis

### **Unit-1**

**Teaching Hours:2**

#### **Management Research Methods ? Overview and Philosophy**

Management Research – Scope, Types of Research - Basic Vs Applied Research. Theory Building – Goals of Theory, Meaning of Theory, Concepts. Elements of Scientific Method - Objectivity, Evidence based, Generalizability & Empirical Testability.

### **Unit-2**

**Teaching Hours:16**

#### **Management Research Pre Data Collection Phase -Types of research Designs**

Elements of a research design. Characteristics of Exploratory, Descriptive & Causal research designs. Relationship with type of research with research approach (Qualitative / Observation / Survey / Experiment).

#### **Stages and Decision Alternatives in Research Process**

Overview of stages in Research Process. Problem discovery & definition, Planning the research approach (Survey, Experiment, Observation & Secondary data), Sampling

process, Data collection, Data processing and analysis, report preparation

### **Ethical Issues in Business Research**

Rights and obligations of concerned parties in research – (i) Rights and obligations of the respondent, (ii) Rights and obligations of the researcher, (iii) Rights and obligations of the sponsor (user)

### **Problem Definition and Proposal**

Importance of problem definition. Process of research problem definition – Identifying gaps in the literature. Proposal – Components of an appropriate research proposal.

### **Exploratory Research**

Exploratory Research – What is and what is not. Categories of exploratory research – Experience Surveys, Secondary data analysis, Case study method and Pilot studies (Focus Group Discussion, Depth interviews, Projective techniques)

### **Survey Research Overview and Methods of Communication**

Survey research – objectives and type of information gathered. Errors in survey research – Sampling error and Systematic error (Respondent error, Respondent bias and administrative error)

Method of communication with respondents – Personal interviews, Telephone interviews, self administered questionnaire, mail surveys, Email surveys.

### **Measurement, Scaling Concepts and Attitude Measurement**

What is to be measured? Operational definition of concepts and variables in a research study. Measurement – Nominal, Ordinal, Interval and Ratio. Reliability and Validity – Meaning, Face or content validity, Construct validity. Attitude measurement – Ranking, Rating, Sorting and Choice. Attitude rating scales – Category scales, Likert Scales, Semantic differential scale, Numerical scale, Staple scale, Constant sum scale, Graphical rating scale, Paired comparison scale.

### **Questionnaire Design and Sampling**

Elements of questionnaire design – What should be asked (relevancy & accuracy), Phrasing questions, Asking questions, appropriate use of rating /ranking scales. Sampling process – Sampling element, Sampling frame, sampling method (probability Vs non-

probability), and Sample size determination.

### **Unit-3**

**Teaching Hours:22**

#### **Data Collection & Post Data collection Phase - Fieldwork, Editing, Coding and feeding data**

##### **Basic Data Analysis: Descriptive Analysis**

Tabulation and Graphical presentation of data, Measures of Central Tendency, Dispersion, Skewness & Kurtosis. Reporting appropriate measures and interpretation

##### **Random Variables and Important Probability distributions**

Overview of Probability concept. Random variables – Types of random variables. Probability Mass & Density functions. Introduction and application of Binomial, Poisson, Exponential and Normal probability distributions.

##### **Statistical Inference Estimation & Hypothesis testing**

Sampling distribution, Interval estimation for mean and proportion, Sample size determination using confidence interval approach. Statistical hypothesis – Types of Error in hypothesis testing, Concept of power of a test. Statistical test – One population mean, proportion, two populations mean and proportion comparison. Chi – Square Test and Analysis of Variance (Single factor and two factors) – Meaning, application and interpretation

##### **Correlation and Simple linear Regression**

Correlation – Pair wise and Partial Correlation and tests for the significance of correlation. Simple linear regression – Fitting the model, Tests for overall significance, Model performance measures. Testing significance of the predictor.

Assumptions in simple linear regression – Residual analysis for validation of assumptions. Testing for normality of residuals and constant error variance assumption. Problem of multicollinearity. Remedies for multicollinearity and heteroscedasticity problem.

## **Unit-4**

**Teaching Hours:20**

### **Area Specific tools and methods**

#### **Multivariate analysis for research in Finance (8 hours)**

Exploratory Factor Analysis, Discriminant analysis, Logistic Regression Models – Objectives, Design, Estimation and assessment of overall model fit, Significance tests and interpretation and Validation of results.

#### **Econometric Analysis (12 hours)**

Ordinary Least Squares regression (OLS – Multiple regression analysis). Basic ideal conditions of OLS. Tests for basic ideal conditions including normality of residuals, constant error variance, multicollinearity. Formal tests and remedies.

Time Series Analysis – Components of time series data. Time series as a stochastic process. Decomposition model – Extracting Trend, Seasonal, Cyclical and Random components.

Forecasting using Box Jenkin's models – AR, MA, ARMA, ARIMA and SARIMA models. Fitting, Overall significance, Test for White noise assumptions of residuals and Forecasting performance measures (RMSE, MAD, AIC, BIC).

Testing for Unit roots – DF & ADF tests. Concept of Co-integration. Tests for Cointegration & Engle - Granger causality tests.

#### **Marketing, HR and other Areas**

#### **Multivariate Methods in Marketing Research (20 hours)**

Multiple Regression – Fitting the model, Model performance measures, overall significance of the model, Significance test for predictor variables, and Residual analysis for testing assumptions. Formal diagnostic tests and remedies for multicollinearity, normality of residuals and constant error variance assumptions.

Exploratory Factor Analysis (EFA), Discriminant Analysis, Logistic Regression, Multi Dimensional Scaling (MDS), Overview of Structural Equation Modelling (SEM) - Objectives, Design, Estimation and assessment of overall model fit, Significance tests and interpretation and Validation of results.

### **Text Books And Reference Books**

Zikmund W. *Business Research Methods*. (8<sup>th</sup> India Edition.). Cengage Learning. New Delhi (2004).

### **Essential Reading / Recommended Reading**

Cooper D. R and Schindler P. S. *Business Research Methodology* (10<sup>th</sup> Ed.). McGraw Hill publications (2008)

Sekaran U. and Bougie. R. *Research Methods for Business – A Skill Building Approach*. John Wiley & Sons Ltd. New Delhi (2010).

Malhotra. N and Dash S. *Marketing Research – An Applied Orientation, 6<sup>th</sup> Ed.* Pearson Education (2010).

### **Evaluation Pattern**

Internal: 50 Marks

CIA 1: 10 Marks

CIA 2: 10 Marks

CIA 3: 25 Marks

Attendance: 05 Marks

End Semester Exam: 100 Marks (3 Hours)

Section A (5\*6 = 30 Marks)

Section B (3\*10 = 30 Marks)

Section C (2\*20 = 40 Marks)

## **Contemporary Management and Economics - RMM231**

**Credit: 03**

**Total Hours – 45 hours**

### **Course Description:**

The course provides knowledge, skills and increases the competencies to do research with respect to latest trends in Human resource management, tourism management, financial markets, marketing management and economics. It is a comprehensive course that covers various important aspects of management and economics. The course covers topics related to organization and its characteristics, recent trends in training and development, practical implications of Intellectual Capital and environmental economics. It also provides basic knowledge and understanding of the nature and dynamics of strategy formulation and implementation processes.

### **Course Objectives**

- To equip students with the knowledge and skills with respect to latest trends in today's organizations.
- To provide an integrative framework that will allow students to synthesize knowledge from other business courses into a comprehensive understanding of competitive advantage.
- To give the students an understanding of what is financial markets and how they work.
- To familiarize the students with theoretical and practical aspects in different areas of marketing.

### **Learning Outcomes:**

On the completion of the course, the scholars will be able

To have knowledge and skill on latest trends in different functional areas of Management, Tourism and Economics

To take up issues of contemporary and emerging areas trends in different functional areas of Management, Tourism and Economics.

### **Unit 1: Human Resources Management**

**(9 Hours)**

Level of Knowledge: Conceptual

Learning Organization, Meaning, Characteristics, Knowledge Management- Meaning, challenges. E – Learning: Challenges and issues. Recent trends in training and development, Human Capital theory and practices. Emotion at work and Work Life Balance. Psychological Contract and Enhancing Organizational effectiveness, global HR issues.

## **Unit 2: Financial Markets and Derivatives**

**(9 Hours)**

Level of Knowledge: Conceptual

Overview of the Financial System and Markets in India – Organization, operation and growth, Money Market in India – in the framework of Products, Providers, Investors, Players, Regulators, Yields, Liquidity, Regulations and Procedures and other aspects of various Money Market Instruments, Capital Market in India, Introduction to Derivatives (b) Futures Markets (c) Pricing of Forwards & Futures (d) Interest rate Futures (e) Swaps (f) Option Markets

## **Unit 3: Marketing Management**

**(9 Hours)**

Level of Knowledge: Conceptual

Role, nature, scope and emerging trends in marketing; Importance of consumer behavior-personality, perception, learning and consumer attitudes, Channel structure, Retail management - formats, retail marketing mix, retail planning strategies, Importance, need and scope of advertising, elements of communication mix, associating feelings with the brand – brand equity, image, personality associations and attitude

## **Unit 4: Tourism Management**

**(9 Hours)**

Level of Knowledge: Conceptual

The Tourism Destination and the Need for Tourism Management - Core Competency of Stakeholder Coordination - Descriptive Models of Tourism Management - Shaping sustainable tourism - Carrying Capacity Analysis and Tourism Impacts - Classification and/or licensing of tourism businesses - Regulation of the industry - Structure and the Statutory Framework for Administration of Tourism - Tourism & Information Communication Technologies (ICTs) – Approaching the Future – Strategic planning and tools for tourism – The tourism planning and development process - Framework for tourism trend analysis – sustainability, planning & management.

## **Unit 5: New Frontiers in Economics**

**(9 Hours)**

Level of Knowledge: Conceptual

New Frontiers in International Trade; New Frontiers in Entrepreneurship; New Frontiers in Financial Economics; New Frontiers in Environmental Economics.

### **Essential Reading:**

1. Armstrong, M. (2009). *Armstrong's handbook of human resource management practice*. Kogan Page Limited.
2. DeSimone, R.L. & Harris, M. D. (1994). *Human resource development*. (2nd ed.). The Dryden Press, Harcourt Brace College Publishers.



3. Porter, M. E. (1980). *Competitive strategy: Techniques for analyzing industries and competitors*. New York: free press.
4. Mishkin, J. H., & Eakins, *Financial markets and institutions*. (6th ed.).
5. Kotler, P. *Marketing management*. PHI.
6. Murthy, C. S. V. *Managing information systems-text and applications*.
7. Tsiotsou, R. H., & Goldsmith, R. E. (2012). *Strategic marketing in tourism services*. Bingley, UK: Emerald Group Pub.
8. L.M. Bhole, *Financial Institutions and Markets*, 3/e, Tata McGraw Hill.

**Recommended Reading:**

1. Sanghi, S. (2004). *Handbook of competency mapping*. New Delhi: Response Books.
2. Walker, A. J. (1982). *HRIS development: A project team guide to building effective personnel information system*. New York: Van Nostrand Reinhold Company.
3. Cascio, E. W. (2000). *Costing human resources: The financial impact of behaviour in organizations*. Ohio: South-Western College Publishing.
4. Hoskisson. , Rowe, & Sheppard , *Strategic management, competitiveness and globalization*.
5. Hitt. *Competitiveness and globalization (concepts)*, 2nd Canadian edition.
6. Hull, J. C. *Introduction to futures and options markets*. (3rd ed.). Prentice Hall.
7. Ramaswamy&Namakumari, *Marketing management*. McMillan India.

**ESE pattern**

**Section A (8 x 10 = 80 Marks)**

Answer any 8 question from 10 questions (There will be two questions from each module)

**Section B (1 x 20 = 20 Marks)**

Compulsory case study

# Advanced Business Research Techniques – RMM232A

## Course Description

This course is designed to provide students with the necessary skills and knowledge to move towards advanced research level and to enable them to employ quantitative and qualitative research methods. In this process, students will gain knowledge and skills on multivariate statistical techniques – Discriminant Analysis, MANOVA, Factor Analysis, Cluster analysis and so on using SPSS and on qualitative techniques using NVIVO applications. Further, this course deals with Structural Equation Modeling (SEM) methods.

## Course Objectives

- To develop a thorough understanding of multivariate data analysis
- To master basic and advanced techniques of quantitative research and qualitative research
- To provide basic and advanced multivariate statistics in SPSS
- To provide basic and advanced qualitative analysis in NVIVO

## Learning Outcomes

On the completion of the course, the scholars will be able

To have application level skill of Multivariate analysis and Structural Equation Modeling

To adopt and apply qualitative research methods in the research work.

### **Unit 1: Multivariate Analysis** **2 Hours**

Introduction to Multivariate analysis – Need- Techniques – Applications

### **Unit 2: Multivariate Analysis Techniques** **12 Hours**

Multiple Regression Analysis - Logistic Regression Analysis - Discriminant Analysis - Multivariate Analysis of Variance (MANOVA) - Factor Analysis

### **Unit 3: Multivariate Analysis Techniques - II** **10 Hours**

Multidimensional Scaling (MDS) – Correspondence Analysis – Conjoint Analysis – Cluster Analysis – Canonical Correlation

### **Unit 4: Structural Equation Modeling (SEM)** **10 Hours**

Introduction to Structural Equation Modeling – Evolution and application – Path Analysis – Partial Least Square Method – AMOS

## **Unit 5: Qualitative Research Techniques**

**11 Hours**

Introduction to Qualitative research and its techniques – key issues in qualitative data analysis – Qualitative research methods – Approaches to qualitative research analysis – Qualitative data preparation for analysis – Computer Aided Qualitative Data Analysis Software (CAQDAS) – Nvivo

### **Recommended Readings**

1. Saunders, M., P. Lewis, et al. (2007). *Research Methods for Business Students*. Harlow, England, FT, Prentice Hall, Pearson Education.
2. Bryman, A. and E. Bell (2003). *Business Research Methods* Oxford, Oxford University Press.
3. Diaz de Rada, V. (2005). "Influence of Questionnaire Design on Response to Mail Surveys."
4. *International Journal of Social Research Methodology* 8(1): 61-78.
5. Fox, J., C. Murray, et al. (2003). "Conducting research using web-based questionnaires: practical,"
6. Rowlands, B. (2005). "Grounded in Practice: Using Interpretive Research to Build Theory", *The Electronic Journal of Business Research Methodology* 3 (1): 81-92.

## Applied Econometrics – RMM232B

**Credits: 3**

**Total Hours: 45**

### Course Description

This course will provide students with an understanding of modern econometric procedures, with emphasis placed on interpreting econometric results and critically evaluating the techniques employed.

The first part of the course will be a technical review of the classical linear model, examining the implications when the key assumptions are violated. The second half of the module will focus on application of econometric techniques in finance. It will look at stationary time series processes, difference stationary processes, the analysis of Vector Autoregressions (VAR), Cointegration, Generalized Autoregressive Conditionally Heteroskedastic (GARCH) models.

Both computer and econometric classes will support the lectures, providing examples of specific practical problems.

### Course Objectives

- To provide students with a thorough coverage of modern econometrics, such that they can potentially develop substantive new empirical findings and theoretical results.
- Introduce students to the econometric theory and its application in order to equip them with the basic knowledge required for performing quantitative analyses of economic and finance models.
- To help students develop hands-on skills in the application of econometric and quantitative techniques to real world economic and business data.

### Learning Outcomes:

On the completion of the course, the scholars will be able

To choose right econometrics techniques for research application and

To apply and interpret various econometrics techniques in the software

**Unit 1: Regression Analysis**

**15Hrs**

Linear regression model: two variables and multi variables; BLUE property; general and confidence approach to hypothesis testing; partial effects and elasticity; goodness of fit; functional forms of regression models; Consequences and detection of multicollinearity, heteroskedasticity, autocorrelation and remedial measures.

**Unit 2: Dummy Variables**

**05Hrs**

Regression on qualitative and quantitative variables, dummy variable trap, structural stability of regression models, Chow test, piecewise linear regression model.

**Unit 3: Distributed Lag Models**

**05 Hrs**

Formation of expectations, naïve expectation versus adaptive expectations models, partial adjustment models, distributed lag models; Koyck's model;

**Unit 4: Stationary and Non-stationary Time Series**

**13Hrs**

Financial time series models: Autoregressive and Moving Average (ARMA) Process, Autoregressive Integrated Moving Average (ARIMA) process; Non-stationarity time series; Unit root tests: Augmented Dickey Fuller test; Co-integration; Causality test; Probit and Logit Model;

**Unit 5: Panel data Models**

**07Hrs**

Introduction to panel data, pooled model, within and between estimators; fixed effects and random effects models; Hausman test; one way and two-way model; random coefficients; dynamic panel data models;

**Recommended Readings:**

- 1) AKoutsoyiannis (2001), *Theory of Econometrics*, Palgrave Macmillan, 2<sup>nd</sup> Edition.
- 2) Damodar N Gujarati and D C Porter (2009), *Basic Econometrics*, McGraw Hill Publication, 5<sup>th</sup> edition.

- 3) Christopher Dougherty (2007), *Introduction to Econometrics*, Oxford University Press, 3<sup>rd</sup> edition, Indian Edition.
- 4) Jan Kmenta (2008), *Elements of Econometrics*, Indian Reprint, Khosla Publishing House, 2<sup>nd</sup> edition.
- 5) Johnston J (1972), *Econometric Methods*, McGrawHillBook Company, New York.
- 6) Lawrence Klein (1962), *An Introduction to Econometrics*, PrenticeHall Inc, Englewood Cliffs. New Jersey.
- 7) Maddala, G.S and Kajal Lahiri (2009), *Introduction to Econometrics*, 4<sup>th</sup> edition, Wiley publication.
- 8) Wooldridge, J., *Introductory Econometrics: A Modern Approach*, Cengage, 6th edition, 2016.