

## **M.Com - Behavioural Finance**

### **Programme Objective:**

Behavioural finance studies irrationalities in savings and investment decisions as well as puzzles on financial markets.

The ultimate goal is to allow students to wisely and effectively make financial decisions.

Some key topics are saving for retirement, insurance, predictability of returns, and bubbles. Course like wealth management, asset management, financial derivative, venture capital would provide students with a deeper and more realistic understanding of finance than is offered by the mainstream approach alone.

- Comprehensive training in finance
- A special focus on - savings and investment and on financial markets

### **Learning Outcome**

On successful completion of this Programme, students will be able to:

- Apply analytical skills for financial decision making.
- Identify the behavioural bias and psychological characteristics of investors.
- Develop strategies to manage wealth effectively and wisely from mispriced assets.
- Practice discussion of capital markets and how we can apply what we learn in class to the financial world.

### **Pedagogy:**

- ICT enabled Classroom teaching / virtual platforms
- Case study
- Practical / live assignment
- Interactive class room discussions
- Internship/ Expert Lectures / Industry Interface

### **Career opportunity**

Analyst/trader/portfolio manager in investment banks, hedge funds, and pension funds

Companies' finance departments and investment banks

Research economist in public sector, international institutions

### **Who can apply for the Programme?**

The student who has passed any degree of this University or any other recognized University shall be admitted to M.Com. Programme.

### **Duration of the Programme:**

The M.Com. Programme will be of two years duration consisting of two parts .i.e. Part I and Part II. Each part is having Two Semester. Each Semester there will be Four Courses of 100 marks each .The M.Com Degree will be of 1600 Marks. Option for internship and Research project shall be exercised by the learners. Option shall be opened after giving due notice.

**Intake Capacity:** 60 Students

AC 29-04-22



**R.A Podar College**

**Of**

**Commerce and Economics**

**(Autonomous)**

**Matunga, Mumbai**

**Syllabus**

**For**

**Post Graduate Programme**

**M.Com. (*Behavioural Finance*)**

**Semester I & II**

CHOICE BASED CREDIT AND GRADING SYSTEM (CBCGS)

**With effect from the academic year 2022-23**

**[www.rapodar.ac.in](http://www.rapodar.ac.in)**

**M.Com**  
**(Behavioral Finance)**  
*Under Choice Based Credit, Grading and Semester System*  
**Course Structure**  
**M.Com I**

No. of Courses	Semester I	Credits	No. of Courses	Semester II	Credits
	<i>Core Courses (CC)</i>			<i>Core Courses (CC)</i>	
1	Introduction to Behavioural Finance I	06	1	Behavioural Finance II	06
2	Business Ethics	06	2	Behavioural Economics	06
	<i>Discipline Specific Courses</i>			<i>Discipline Specific Courses</i>	
3	Psychological Aspect of Investing	06	3	Introduction to Data Science I	06
	<i>Ability Enhancement Compulsory Courses (AECC)</i>			<i>Ability Enhancement Compulsory Courses (AECC)</i>	
4	<i>Statistical Tools and Techniques for Research</i>	06	4	Research Methodology for Business	06
	<b>Total Credits</b>	<b>24</b>		<b>Total Credits</b>	<b>24</b>

**M.Com II**

No. of Courses	Semester III	Credits	No. of Courses	Semester IV	Credits
	<i>Core Courses (CC)</i>			<i>Core Courses (CC)</i>	
1	Risk management in Behavioural Finance	06	1	Personal Finance and Wealth Management	06
2	Financial Accounting & Analysis	06	2	Supply chain Design and Management	06
	<i>Elective Courses (EC)</i>			<i>Elective Courses (EC)</i>	
3	*Any one courses from the following list of the courses A. Machine Learning & Mining Algorithms B. Sales and Marketing analytics C. HR Analytics	06	3	**Any one courses from the following list of the courses A. Advance Data Science II B. Financial Risk Models C. Analytics for Investment Banking D. E-Commerce	06
4	Project Work - I	06	4	Project Work - II	06
	<b>Total Credits</b>	<b>24</b>		<b>Total Credits</b>	<b>24</b>

□ **Note:** Project work is considered as a special course involving application of knowledge in solving/ analyzing/ exploring a real life situation/ difficult problem. Project work would be of 06 credits. A project work may be undertaken in any area of Elective Courses

**Semester I  
Core Courses (CC)**

**1. Introduction to Behaviour Finance I**

**Modules at a Glance**

SN	Modules	No. of Lectures
1	Behavioral finance: introduction	15
2	Utility/ Preference Functions	15
3	Behavioral Factors and Financial Markets	15
4	Heuristics and behavioral biases of investors	15

**Objectives**

SN	Objectives
1	The purpose of this course is to introduce the student to the new field of behavioural finance.
2	Students will deal with major implications of human psychology for financial decision-makers and for financial markets.
3	students will be able to have a good understanding of the major concepts and topics of behavioural finance

SN	Modules/ Units
1	<b>Behavioral finance</b> Introduction to Behavioral finance – Nature, scope, objectives and application; Investment Decision Cycle: Judgment under Uncertainty :Cognitive information perception - Peculiarities (biases) of quantitative and numerical information perception - Representativeness – Anchoring - Exponential discounting - Hyperbolic discounting
2	<b>Utility/ Preference Functions</b> Expected Utility Theory [EUT] and Rational Thought: Decision making under risk and uncertainty - Expected utility as a basis for decision-making – Theories based on Expected Utility Concept - Investor rationality and market efficiency.
3	<b>Behavioral Factors and Financial Markets</b> The Efficient Markets Hypothesis – Fundamental Information and Financial Markets - Information available for Market Participants and Market Efficiency -Market Predictability –The Concept of limits of Arbitrage Model - Asset management and behavioral factors - Active Portfolio Management: return statistics and sources of systematic underperformance. - Fundamental information and technical analysis – the case for psychological influence.
4	<b>Heuristics and behavioral biases of investors</b> Types of investors- Individual and Institutional - How the human mind works-the two systems; Familiarity and related heuristics; Representativeness and related biases; Anchoring; Irrationality and adaptation; Hyperbolic discounting. Sovereign credit rating - drivers

**Suggested Readings**

- Shleifer, Andrei (2000). Inefficient Markets: An Introduction to Behavioral Finance. Oxford, UK: Oxford University Press.
- Kahneman, D. and Tversky, A. (1984). "Choices, Values, and Frames". American Psychologist 39 (4): 341–350.

- HershShefrin, (2000) Beyond Greed and Fear, Harvard Business School Press.
- Chandra, P. (2017), Behavioural Finance, Tata Mc Graw Hill Education, Chennai (India).
- Ackert, Lucy, Richard Deaves (2010), Behavioural Finance; Psychology, Decision Making and Markets, Cengage Learning.
- Forbes, William (2009), Behavioural Finance, Wiley.
- Kahneman, D. and Tversky, A. (2000). Choices, values and frames. New York : Cambridge Univ. Press. 5.
- Shefrin, H. (2002), Beyond Greed and Fear; Understanding Behavioural Finance and Psychology of investing. New York; Oxford University Press.
- Shleifer, A. (2000). Inefficient markets; An introduction to Behavioural Finance. Oxford Univ. Press.
- Thaler, R. (1993). Advances in Behavioral Finance. Vol. I. New York, Russell Sage Foundation.
- Thaler, R. (2005). Advances in Behavioural Finance. Vol. II. New York; Princeton University Press.

**Semester I  
Core Courses (CC)**

**2. Business Ethics  
Modules at a Glance**

SN	Modules	No. of Lectures
1	Introduction to Business Ethics	15
2	Indian Ethical Practices and Corporate Governance	15
3	Management Ethics - Integrity at work	15
4	Corporate Responsibility	15
<b>Total</b>		<b>60</b>

**Objectives**

SN	Objectives
1	To familiarize the learners with the concept and relevance of Business Ethics in the modern era
2	To enable learners to understand the scope and complexity of Corporate Social responsibility in the global and Indian context

SN	Modules/ Units
<b>1</b>	<b>Introduction to Business Ethics</b>
	<ul style="list-style-type: none"> <li>● Business Ethics – Concept, Characteristics, Importance and Need for business ethics. Indian Ethos, Ethics and Values, Work Ethos.</li> <li>● Various approaches to Business Ethics - Theories of Ethics- Friedman’s Economic theory, Kant’s Deontological theory, Mill &amp; Bentham’s Utilitarianism theory</li> <li>● Gandhian Approach in Management and Trusteeship, Importance and relevance of trusteeship principle in Modern Business, Gandhi’s Doctrine of Satya and Ahimsa.</li> </ul>
<b>2</b>	<b>Indian Ethical Practices and Corporate Governance</b>
	<ul style="list-style-type: none"> <li>● Corporate Governance: Concept, Importance, Evolution of Corporate Governance, Principles of Corporate Governance,</li> <li>● Regulatory Framework of Corporate Governance in India, SEBI Guidelines and clause 49, Audit Committee, Role of Independent Directors, Protection of Stake Holders, Changing roles of corporate Boards.</li> <li>● Elements of Good Corporate Governance, Failure of Corporate Governance and its consequences</li> </ul>
<b>3</b>	<b>Management Ethics - Integrity at work</b>
	<ul style="list-style-type: none"> <li>● Sources of Ethics, Ethical dilemma in business and ethical implications.</li> <li>● Ethics in Finance: Unethical financial practices – creative accounting- hostile takeovers tax evasion- corporate crimes.</li> <li>● Ethics in Human Resources Management: Human resource system- psychological expectancy model- Individualism versus collectivism in human resource management practices</li> <li>● Ethics and Information Technology: Ethical issues relating to computer applications; security threats – computer crime- computer viruses- software</li> </ul>

	piracy- hacking – computer crime prevention – ethical dilemmas and considerations.
<b>4</b>	<b>Corporate Responsibility</b>
	<ul style="list-style-type: none"> <li>● Corporate philanthropy, Models for Implementation of CSR, Drivers of CSR,</li> <li>● Designing CSR Policy- Factors influencing CSR Policy, Role of HR Professionals in CSR</li> <li>● Global Recognitions of CSR- ISO- 14000-SA 8000 – AA 1000 – Codes formulated by UN Global Compact – UNDP, Global Reporting Initiative; major codes on CSR.</li> <li>● CSR and Sustainable Development</li> <li>● CSR through Triple Bottom Line in Business</li> </ul>

### Suggested Readings

- Sharma J.P ‘ Corporate Governance, business ethics and CSR, Ane Books Pvt Ltd, New Delhi
- Sharma J.P. Corporate Governance and Social Responsibility of business, Ane Books Pvt ltd, New Delhi
- S.K.Bhatia, Business Ethics and Corporate Governance
- William Shaw, Business Ethics, Wordsworth Publishing Company, International Thomson Publishing Company.
- Corporate Crimes and Financial Frauds, Dr. Sumit Sharma, New Delhi India
- R.C. Sekhar, Ethical choices in Business, Sage Publications, New Delhi
- Business Ethics, Andrew Crane and Dirk Matten, Oxford University Press.
- Business Ethics, Text and Cases, C.S.V. Murthy, Himalaya Publication House.
- Mallin, Christine A. Corporate Governance (Indian Edition) Oxford University press. New Delhi
- Blow field ,Michael and Alan Murray, Corporate Responsibility, Oxford University Press,
- Philip Kotler and Nancy Lee, CSR : doing the most good for Company and your cause , Wiley 2005
- Beeslory, Michel and Evens, CSR , Taylor and Francis, 1978
- Subhabrata Bobby Banerjee, CSR: the good, the bad and the ugly. Edward Elgar Publishing 2007
- Joseph A. Petrick and John F. Quinn, Management Ethics- Integrity at work , Sage Publication , 1997
- Francesco Perrini, Stefano and AntanioTencati, Developing CSR- A European Perspective , Edward Elgar.
- William B. Werther, Jr. David Chandler, Strategic Corporate Social Responsibility, stakeholders’ a global environment, Sage Publication, 2009.
- Ellington. J. (1998), Cannibals with forks: The triple bottom line of 21st Century business, New Society Publishers.
- Crane, A. Et al., (2008), The Oxford handbook of Corporate Social Responsibility, New York: Oxford University Press Inc.

**Semester I**  
**Discipline Specific Courses (DSC)**

**3. Psychological Aspect of Investing**

**Modules at a Glance**

SN	Modules	No. of Lectures
1	Overview of investor psychology	15
2	Market Bubbles	15
3	Behavioural Foundations	15
4	Behavioural aspects in investing	15
<b>Total</b>		<b>60</b>

**Objectives**

SN	Objectives
1	The student will be able to Understand and critically discuss the differences between a behavioural finance perspective and a traditional finance perspective.
2	Understand and discuss critically how an awareness of decision errors and cognitive biases can help develop better investors or financial managers.
3	Understand and discuss critically the market efficiency debate and recent developments.

SN	Modules/ Units
1	Overview of investor psychology
	Introduction - Formal overview of investor psychology, Behavioural Portfolio theory - Psychographic models - Sound Investment Philosophy different biases such as Overconfidence, Base rate neglect, Anchoring and adjustment, Cognitive Dissonance, Availability, Self-Attribution and Illusion of Control Bias.
2	Market Bubbles:
	• Introduction and brief history of stock market bubbles • Identification and classification of a stock market bubble • Explaining bubbles through behavioural finance • Investor behavior during bubbles. • Causes of bubbles
3	Behavioral foundation
	The Behavioral Foundations – Role of behavioural antecedents Role of Emotions, Mood, Sentiments. Emotional Timeline; Emotions and Neuroscience Role of Demographics Role of Psychological Dispositions Limits to Arbitrage, Fundamental risk
4	Behavioural aspects in Investing
	Investing Styles and Behavioral Finance; Shadow of the Past. Strategies for overcoming Psychological Biases

**Suggested Readings**

- Nofsinger, John (2014) The Psychology of Investing, 5th edition, Prentice Hall ISBN: 0133382877.
- Montier, James (2007) Behavioural Investing, A Practitioner's Guide to Applying Behavioural Finance, Wiley ISBN: 0470516706.
- Baker, K. and Nofsinger, J. (2010), Behavioral Finance: Investors, Corporations, and Markets, John Wiley ISBN: 9780470499115.

- Scott Plous, (1993) *The Psychology of Judgment and Decision Making*, McGraw Hill.
- Daniel Kahneman, Paul Slovic, and Amos Tversky (eds.) (1982) *Judgment under Uncertainty: Heuristics and biases*, Oxford; New York: Oxford University Press
- HershShefrin, (2000) *Beyond Greed and Fear*, Harvard Business School Press

**Semester I**  
**Ability Enhancement Compulsory Courses (AECC)**

**4. Statistical Tools and Techniques for Research**

**Modules at a Glance**

SN	Modules	No. of Lectures
1	Measures of Central Tendency and Dispersion	15
2	Regression Analysis	15
3	Time Series and Forecasting	15
4	Theoretical Frequency Distributions	15
Total		60

**Objectives**

SN	Objectives
1	Students will acquire an understanding of descriptive statistical tools like measures of central tendency & measures of variation and apply these tools to real life situations.
2	Students will be able to identify and establish relationships between real life variables using tools like correlation and regression and comprehend the concepts of probability & probability distributions

SN	Modules/ Units
<b>1</b>	Measures of Central Tendency and Dispersion
	Average-Concept, Types, Mathematical Averages- Arithmetic, Geometric, and Harmonic mean, Position and Locational Averages, Median, Mode. Measures of Dispersion: Range, Quartile Deviation- Mean and Standard Deviation, Variance- Coefficient of Variance- Comparison of various measures of Dispersion, Skewness- Relative Measures of Skewness- Karl Pearson, Bowley, Kelly-Coefficient of Skewness, Kurtosis.
<b>2</b>	Regression Analysis
	Regression Analysis: Regression Equations, Regression Coefficients. b. Multiple Correlation and Multiple Regression Analysis: Partial Correlation, Coefficient of Multiple Correlation, Multiple Regression Analysis.- applications in business world
<b>3</b>	Time Series and Forecasting
	Time Series- Introduction, Objectives of Time Series, Identification of Trend, Variation in Time Series Secular Variation, Cyclical Variation, Seasonal Variation, and Irregular Variation, Methods of Estimating Trend, Choosing Appropriate Forecasting Model.
<b>4</b>	Theoretical Frequency Distributions
	Theoretical Frequency Distributions: Binomial, Normal and Poisson distribution. Probability Theory: Addition and Multiplication Theorems of Probability, Application of Addition Theorem, Multiplication Theorem, Bayes' Theorem.

**Suggested Readings**

1. Statistics for Management, Levin and Rubin, 7th Edition, Pearson
2. Statistics for Business and Economics, Anderson, Sweeney and Williams, 11th Edition, Cengage Learning

3. Statistics for Management, T. N. Srivastava and Shailaja Rego, 2nd Edition, TMH
4. Business Statistics in Practice, Bruce Bowerman, Richard T. O'Connell and Emily Murphree, 5th Edition, Tata McGraw hill
5. Statistics for Managers, Levine, Stephan, Krehbiel and Berenson, 5th Edition, PHI
6. Statistical Methods, S. P. Gupta, 34th Edition, Sultan Chand & Sons
7. Business Statistics for Contemporary Decision Making, Ken Black, 5th Edition, Wiley Publications (India Edition)

**Semester II  
Core Courses (CC)**

**I. Behavioural Finance II**

**Modules at a Glance**

SN	Modules/ Units	
	Modules	No. of Lectures
1	Introduction	15
2	Building block of Behavioural Finance	15
3	Rationality from an economics and evolutionary prospective	15
4	External factors and investor behaviour	15
<b>Total</b>		<b>60</b>

**Objectives**

SN	Objectives
1	Students will be familiarize with basic aspects of behavioural finance
2	Students understand about building block of behavioural finance
3	To familiarize with external factors and investor behaviour

SN	Modules/ Units
<b>1</b>	Introduction
	Behavioural Finance: Nature, Scope, Objectives and Significance & Application- History of Behavioural Finance, Psychology: Concept, Nature, Importance, The psychology of financial markets, The psychology of investor behaviour, Behavioural Finance Market Strategies, Prospect Theory, Loss aversion theory under Prospect Theory & mental accounting— investors Disposition effect .
<b>2</b>	Building block of Behavioural Finance
	Cognitive Psychology and limits to arbitrage - Demand by arbitrageurs: Definition of arbitrageur; Long-short trades; Risk vs. Horizon; Transaction costs and short-selling costs; Fundamental risk; Noise-trader risk; Professional arbitrage; Destabilizing informed trading (positive feedback, predation) - Expected utility as a basis for decision-making - The evolution of theories based on expected utility concept
<b>3</b>	Rationality from an economics and evolutionary prospective
	Elsberg's paradoxes, Rationality from an economics and evolutionary prospective- Different ways to define rationality: dependence on time horizon, individual or group rationality - Herbert Simon and bounded rationality - Demand by average investors: Definition of average investor; Belief biases; Limited attention and categorization; Non-traditional preferences – prospect theory and loss aversion; Bubbles and systematic investor sentiment
<b>4</b>	External factors and investor behaviour
	External factors and investor behaviour: Fear & Greed in Financial Market, emotions and financial markets: geomagnetic storm, Statistical methodology for capturing the effects of external influence onto stock market returns-

## **Suggested Readings**

- Finding Financial Wisdom in Unconventional Places (Columbia Business School Publishing)
- Bisen,pandey-Learning Behavioural Finance(Excel Books)
- A History of Financial Speculation: Edward Chancellor
- Forbes- Behavioural Finance (Wiley India)
- The Little Book of Behavioral Investing (Montier)
- The Psychology of Persuasion (Collins Business Essentials)
- Behavioural Finance: Understanding the social, cognitive and economic debates, Edwin Burten and Sunit N Shah, Wiley, 2013
- Behavioural Finance, Chandra. Prasanna.Mcgraw Hill

**Semester II  
Core Courses (CC)**

**2. Behavioural Economics**

**Modules at a Glance**

SN	Modules	No. of Lectures
1	Introduction to behavioural economics	15
2	Foundation	15
3	Inter temporal choice	15
4	Strategic interaction	15
<b>Total</b>		<b>60</b>

**Objectives**

SN	Objectives
1	To be able to understand the world through the lens of behavioral economics.
2	To know when the application of behavioral economics is appropriate.
3	To be able to critically read and use the academic literature in behavioral economics.

SN	Modules/ Units
<b>1</b>	<b>Introduction to behavioural economics</b>
	What is behavioural economics? - History and evolution- relation with other disciplines objectives, and scope- themes and methodology of behavioural economics (theory, evidence, consilience) – application
<b>2</b>	<b>Foundation</b>
	Values, preferences and choice- believes- heuristic and biases- state dependent preferences (such as habit formation and addiction)- mis-prediction and projection bias-anticipation and information avoidance-decision making under risk and uncertainty- prospect theory- the role of reference- dependent preference in both risky (loss aversion) and risk free (endowment) choices- mental accounting- applications
<b>3</b>	<b>Inter temporal choice</b>
	The discounted utility model (origin, features, methodology, anomalies with discounted utility models)- alternative inter temporal choice models (time preferences, time inconsistent preferences- hyperbolic discounting- modifying the instantaneous functions)- applications Nudges, Policy, and Happiness- the application
<b>4</b>	<b>Strategic interaction</b>
	Behavioural game theory (nature, equilibrium, mixed strategies, bargaining, iterated games, signalling, learning)- application Modelling of social preferences –nature and factors affecting social preferences distributional social preferences based on altruism, inequality aversion models- reciprocity models, evidence and policy implications

**Suggested Readings**

- An introduction to behavioural economics by Wilkinson and Klaes, Palgrave MacMillan
- Behavioural Economics and Finance, by Michelle Beddeley, Rutledge, 2019

- Behaviour economics and business ethics- interrelation and application by Alexander Rajko, Routledge, London, 2012
- Philosophical problems of behavioural economics by Steffan Heidel, Routledge, 1996
- Varieties of modern economic rationality – from Adam Smith to Contemporary
- Behavioural and evolutionary economists by Michael S Zoubulakis, Routledge, 1997
- Behavioural foundations of economics by J.L. Buxter, McMillan Press,
- Choice, Behavioural economics and addiction, edited by Ruby E Vachinich and Nick Heather, Pergamon Elsevier, 2003,
- Advance in understanding strategic behaviour- game theory experiments and bounded rationality, edited by Steffan Huck, Palgrave, McMillan, 2004

## Semester II

### Discipline Specific Courses (DSC)

#### 3. *Foundation of Data Science II*

##### Modules at a Glance

SN	Modules	No. of Lectures
1	Introduction	15
2	Data Processing	15
3	Basic Machine Learning Algorithms	15
4	Clustering	15
<b>Total</b>		<b>60</b>

##### Objectives

SN	Objectives
1	To familiarize the learners with the concept and <i>Foundation of Data Science</i>
2	To enable learners to understand the scope and complexity of data science

SN	Modules/ Units
<b>1</b>	<b>Introduction</b>
	Big Data and Data Science – Datafication – Current landscape of perspectives – Skill sets needed; Matrices – Matrices to represent relations between data, and necessary linear algebraic operations on matrices -Approximately representing matrices by decompositions (SVD and PCA).
<b>2</b>	<b>Data Processing</b>
	Data cleaning – data integration – Data Reduction Data Transformation and Data Discretization. Evaluation of classification methods – Confusion matrix, Students T-tests and ROC curves- Exploratory Data Analysis – Basic tools (plots, graphs and summary statistics) of EDA, Philosophy of EDA – The Data Science Process.
<b>3</b>	<b>Basic Machine Learning Algorithms</b>
	Association Rule mining - Linear Regression- Logistic Regression - Classifiers - k-Nearest Neighbours (k-NN), k-means -Decision tree - Naive Bayes- Ensemble Methods - Random Forest. Feature Generation and Feature Selection - Feature Selection algorithms - Filters; Wrappers; Decision Trees; Random Forests.
<b>4</b>	<b>Clustering</b>
	Clustering: Choosing distance metrics - Different clustering approaches - hierarchical agglomerative clustering, k-means (Lloyd's algorithm), - DBSCAN - Relative merits of each method - clustering tendency and quality.

## Suggested Readings

- Cathy O’Neil and Rachel Schutt, “Doing Data Science, Straight Talk from The Frontline”, O’Reilly, 2014.
- Jiawei Han, Micheline Kamber and Jian Pei, “Data Mining: Concepts and Techniques”, Third Edition. ISBN 0123814790, 2011.
- Mohammed J. Zaki and Wagner Miera Jr, “Data Mining and Analysis: Fundamental Concepts and Algorithms”, Cambridge University Press, 2014.
- Matt Harrison, “Learning the Pandas Library: Python Tools for Data Munging, Analysis, and Visualization, O’Reilly, 2016.
- Joel Grus, “Data Science from Scratch: First Principles with Python”, O’Reilly Media, 2015.

**Semester II**  
**Ability Enhancement Compulsory Courses (AECC)**

**4. Research Methodology for Business**

**Modules at a Glance**

SN	Modules	No. of Lectures
1	Introduction to Research	15
2	Research Process	15
3	Data Processing and Statistical Analysis	15
4	Research Reporting and Modern Practices in Research	15
<b>Total</b>		<b>60</b>

**Objectives**

SN	Objectives
1	To enhance the abilities of learners to undertake research in business & social sciences
2	To enable the learners to understand, develop and apply the fundamental skills in formulating research problems
3	To enable the learners in understanding and developing the most appropriate methodology for their research
4	To make the learners familiar with the basic statistical tools and techniques applicable for research

SN	Modules/ Units
<b>1</b>	<b>Introduction to Research</b>
	<ul style="list-style-type: none"> <li>● Features and Importance of research in business, Objectives and Types of research- Basic, Applied, Descriptive, Analytical and Empirical Research.</li> <li>● Formulation of research problem, Research Design, significance of Review of Literature</li> <li>● Hypothesis: Formulation, Sources, Importance and Types</li> <li>● Sampling: Significance, Methods, Factors determining sample size</li> </ul>
<b>2</b>	<b>Research Process</b>
	<ul style="list-style-type: none"> <li>● Stages in Research process</li> <li>● Data Collection: Primary data: Observation, Experimentation, Interview, Schedules, Survey,</li> <li>● Limitations of Primary data</li> <li>● Secondary data: Sources and Limitations,</li> <li>● Factors affecting the choice of method of data collection.</li> <li>● Questionnaire: Types, Steps in Questionnaire Designing, Essentials of a good questionnaire</li> </ul>
<b>3</b>	<b>Data Processing and Statistical Analysis</b>
	<ul style="list-style-type: none"> <li>● Data Processing: Significance in Research, Stages in Data Processing: Editing, Coding, Classification, Tabulation, Graphic Presentation</li> <li>● Statistical Analysis: Tools and Techniques, Measures of Central Tendency, Measures of Dispersion, Correlation Analysis and Regression Analysis.</li> <li>● Testing of Hypotheses – <ul style="list-style-type: none"> <li>▪ Parametric Test-t test, f test, z test</li> <li>▪ Non-Parametric Test -Chi square test, ANOVA, Factor Analysis</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>● Use of R software</li> </ul>
<b>4</b>	<b>Research Reporting and Modern Practices in Research</b>
	<ul style="list-style-type: none"> <li>● Research Report Writing: Importance, Essentials, Structure/ layout, Types</li> <li>● References and Citation Methods: <ul style="list-style-type: none"> <li>▪ APA (American Psychological Association)</li> <li>▪ CMS (Chicago Manual Style)</li> <li>▪ MLA (Modern Language Association)</li> </ul> </li> <li>● Footnotes and Bibliography</li> <li>● Modern Practices: Ethical Norms in Research, Plagiarism, Role of Computers in Research</li> </ul>

### Suggested Readings

- Research Methodology – Text and Cases with SPSS Applications, by Dr S.L. Gupta and Hitesh Gupta, International Book House Pvt Ltd
- Business Research Methodology by T N Srivastava and Shailaja Rego, Tata Mcgraw Hill Education Private Limited, New Delhi
- Methodology of Research in Social Sciences, by O.R. Krishnaswami, Himalaya Publishing House
- Research Methodology by Dr Vijay Upagude and Dr Arvind Shende
- Business Statistics by Dr S. K Khandelwal, International Book House Pvt Ltd
- Quantitative Techniques by Dr S. K Khandelwal, International Book House Pvt Ltd
- SPSS 17.0 for Researchers by Dr S.L Gupta and Hitesh Gupta, 2nd edition, Dr S. K Khandelwal, International Book House Pvt Ltd
- Foundations of Social Research and Econometrics Techniques by S.C. Srivastava, Himalaya publishing House
- Statistical Analysis with Business and Economics Applications, Hold Rinehart & Wrintston, 2nd Edition, New York
- Business Research Methods, Clover, Vernon T and Balsely, Howard L, Colombus O. Grid, Inc
- Business Research Methods, Emary C. Willima, Richard D. Irwin In. Homewood
- Research Methods in Economics and Business by R. Gerber and P.J. Verdoom, The Macmillan Company, New York Research and Methodology in Accounting and Financial Management, J.K Courtis
- Statistics for Management and Economics, by Menden Hall and Veracity, Reinmuth J.E
- Panneerselvam, R., Research Methodology, Prentice Hall of India, New Delhi, 2004.
- Kothari CR, Research Methodology- Methods and Techniques, New Wiley Ltd., 2009

## Evaluation:

Students shall be evaluated on the following components:

A Internal Evaluation (Internal Assessment- 40 Marks)

- Quiz/ class test/ case study/ review of Literature

B End –Semester Examination (External Assessment-60 Marks)

Question Paper Pattern (Practical Courses and Theoretical Courses)

Maximum Marks: 60

Questions to be set: 04

Duration: 2 Hrs.

All Questions are Compulsory Carrying 15 Marks each.

Question No	Particular	Marks
Q1	Full length Question/Practical Question OR	15 marks
Q1	Full length Question/Practical Question	15 marks
Q2	Full length Question/Practical Question OR	15 marks
Q2	Full length Question/Practical Question	15 marks
Q3	Full length Question/Practical Question OR	15 marks
Q3	Full length Question/Practical Question	15 marks
Q4	Full length Question/Practical Question OR	15 marks
Q4	Full length Question/Practical Question	15 marks

Note: Full length question of 15 marks may be divided into two sub questions of 08 and 07 marks.

	Particular
1	Standard of Passing The learner to pass a course shall have to obtain a minimum of 40% marks in aggregate for each course where the course consists of Internal Assessment & Semester End Examination. The learner shall obtain minimum of 40% marks (i.e. 16 out of 40) in the Internal Assessment and 40% marks in Semester End Examination (i.e. 24 out of 60) separately, to pass the course and minimum of Grade E in the project component, wherever applicable to pass a particular semester. A learner will be said to have passed the course if the learner passes the Internal Assessment & Semester End Examination together.