

**S.P. Mandali's**

**R. A. PODAR COLLEGE OF COMMERCE AND  
ECONOMICS (AUTONOMOUS),**

**Matunga, Mumbai-400019**

## **Course Structure**

**For**

**Post Graduate Program**

**M.Com. (Business Analytics)**

**Semester IV**

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

**S.P. Mandali's**

**R. A. PODAR COLLEGE OF COMMERCE AND  
ECONOMICS (AUTONOMOUS),**

**Matunga, Mumbai-400019**

**Syllabus**

**And**

**Question Paper Pattern of Course**

**Post Graduate Program**

**M.Com. (Business Analytics)**

**Semester IV**

Syllabus as per National Education Policy 2020  
To be implemented from Academic Year 2025-2026

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

## **POST GRADUATE PROGRAM OUTCOMES :**

<b>PROGRAM OUTCOME No.</b>	<b>Description</b>
PO 1	Learners will acquire advanced knowledge in accounting principles, financial reporting, and taxation policies
PO 2	Learners will master the effective communication of complex financial information to diverse stakeholders through oral and written means
PO 3	Learners will develop critical thinking skills to analyze financial statements, interpret accounting regulations, and propose strategic financial solutions.
PO 4	Learners will apply accounting principles to solve real-world financial challenges and make informed business decisions.
PO 5	Learners will employ analytical reasoning to interpret financial data, assess business performance, and support strategic planning.
PO 6	Learners will excel in conducting advanced research in accounting, showcasing proficiency in data collection, analysis, and interpretation.
PO 7	Learners will collaborate effectively with interdisciplinary teams to address complex accounting issues and achieve organizational goals.
PO 8	Learners will apply scientific reasoning to evaluate and propose innovative financial strategies and models.
PO 9	Learners will engage in reflective thinking, identifying areas for improvement and continuous learning in the field of accountancy.
PO 10	Learners will leverage digital tools for effective access, evaluation, and synthesis of financial information.
PO 11	Learners will take initiative in ongoing professional development, engaging in self-directed learning to stay updated with evolving accounting standards.
PO 12	Learners will demonstrate multicultural competence, showing sensitivity to diverse cultural perspectives in the global business environment.
PO 13	Learners will exhibit a strong ethical foundation, making decisions with integrity and considering the societal impact of financial practices.
PO14	Learners will showcase leadership qualities, being capable of guiding financial teams and contributing to organizational success.
PO15	Learners will recognize the importance of continuous learning, adapting to advancements in the field of accountancy throughout their professional careers.

**Program Specific Outcomes**  
**(M.Com. Business Analytics)**  
**Academic Year: 2025-26**

<b>Program Specific Outcomes No.</b>	<b>Program Specific Outcomes</b>
PSO1	Learners will acquire <b>disciplinary knowledge</b> in Analytics and Data Science, preparing them to meet the demands of businesses worldwide and making them business-ready professionals in analytics.
PSO2	Learners will gain <b>disciplinary knowledge</b> in Marketing, Retail Analytics, Finance and Risk Analytics, supply chain and logistics Analytics, social and web media analytics.
PSO3	Learners will apply <b>problem-solving</b> techniques using Data mining, predictive modeling and Time series forecasting and Machine learning
PSO4	Learners will strengthen their <b>analytical reasoning</b> through hands-on experience with software like Python, R, and Tableau.
PSO5	Learners will acquire <b>research-related skills</b> essential for conducting analytics projects.
PSO6	Learners will engage in <b>reflective thinking</b> to continuously assess and improve their analytical approaches.
PSO7	Learners will develop <b>critical thinking</b> to evaluate complex business scenarios and make informed decisions.

## Master in Commerce

### (Business Analytics)

#### 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
<b>Mandatory</b>			<b>Mandatory</b>		
1	Introduction Business Analytics	<b>06</b>	1	Introduction To Financial Analytics	<b>02</b>
2	Introduction To Data Science - 1	<b>06</b>	2	Data Visualization And Communication	<b>06</b>
3	Business Ethics	<b>02</b>	3	Data Science	<b>06</b>
<b>Electives</b>			<b>Electives</b>		
4	R-Lab Course	<b>04</b>	4	Python Data Science – Lab Course	<b>04</b>
<b>Research Methodology</b>			<b>Research Methodology</b>		
5	Research Methodology for Business	<b>04</b>	--	-----	--
<b>On Job Training/Field Project</b>			<b>On Job Training/Field Project</b>		
--	-----	--	6	Business Analytics Related Project	<b>04</b>
<b>Total Credits</b>		<b>22</b>	<b>Total Credits</b>		<b>22</b>

## M.com II

No. of Courses	Semester III	Credits	No. of Courses	Semester IV	Credits
<b>Mandatory</b>			<b>Mandatory</b>		
1	Machine Learning And Mining Algorithms	<b>06</b>	1	Predictive Analysis	<b>06</b>
2	Financial Model - Based Analytics - I	<b>06</b>	2	Financial Model - Based Analytics - II	<b>06</b>
<b>Electives (Any One)</b>			<b>Electives(Any One)</b>		
3	Sales and Marketing Analysis	<b>04</b>	3	International Financial Reporting Standards	<b>04</b>
4	Tools for Data Analytics – Lab Course - II	<b>04</b>	4	Supply Chain Design And Management	<b>04</b>
5	Financial Accounting And Analysis	<b>04</b>	5	Foundation of Behavioural Financial Analysis	<b>04</b>
<b>Research Methodology</b>			<b>Research Methodology</b>		
6	Statistical Tools and Techniques	<b>02</b>	--	-----	--
<b>Research Project</b>			<b>Research Project</b>		
7	Research Project/Internship	<b>04</b>	7	Research Project	<b>06</b>
<b>Total Credits</b>		<b>22</b>	<b>Total Credits</b>		<b>22</b>



**Revised Syllabus of Courses of Master of Commerce (M.Com) Business  
Analytics Program at Semester IV**

**(Mandatory Course)**

**Predictive Analysis**

**Modules at a glance**

SN	Modules	No. of lectures
1	Introduction to Predictive Analytics and Model Development	15
2	Logistic Regression	15
3	Decision Trees and Unstructured Data Analysis	15
4	Forecasting and Time series Analysis	15
	<b>Total</b>	<b>60</b>

SN	Course Objectives
1	To learn, how to develop models to predict categorical and continuous outcomes, using such techniques as neural networks, decision trees, logistic regression, support vector machines and Bayesian network models.
2	To know the use of the binary classifier and numeric predictor nodes to automate model selection.
3	To advice on when and how to use each model. Also learn how to combine two or more models to improve prediction.

Course Outcome No.	Course Outcomes
CO 1	Gain a foundational understanding of predictive analytics concepts and the process of developing predictive models. Learn about data preparation, feature selection, and model evaluation, setting the stage for advanced analytics.
CO 2	Acquire proficiency in logistic regression, a fundamental statistical method for predicting binary outcomes. Understand its applications in various domains and develop the skills to build and interpret logistic regression models.

CO 3	Explore decision tree algorithms and their application in predictive modeling. Learn techniques for handling unstructured data, such as text and images, and analyze their role in predictive analytics.
CO 4	Develop expertise in forecasting techniques and time series analysis. Understand the principles of capturing and interpreting patterns in time-dependent data, enabling the accurate prediction of future trends and events.

SN	Modules/Units
<b>1.</b>	<b>Introduction to Predictive Analytics and Model Development</b>
	Introduction to Predictive Analytics- Analytics in Decision Making- Game changers & Innovators; Model; Development and Model Validation using Simple Linear Regression-Demo using Excel, R, Python ; Multiple Linear Regression-Estimation of Regression Parameters-Model Diagnostics- Dummy, Derived & Interaction; Variables-Multicollinearity-Model Deployment-Demo using Excel, R, Python.
<b>2.</b>	<b>Logistic Regression</b>
	Discrete choice models-Logistic Regression-Maximum Likelihood Estimation of Parameters- Logistic Model Interpretation-Logistic Model Diagnostics-Logistic Model Deployment-Demo using Excel, R, Python.
<b>3.</b>	<b>Decision Trees and Unstructured Data Analysis</b>
	Introduction to Decision Trees- Chi-Square Automatic Interaction Detectors (CHAID)- Classification and Regression Tree (CART)- Demo Excel, R, Python; Analysis of Unstructured data-Naive Bayes Classification- Discriminant Analysis-Linear Discriminant ;Analysis- Estimating Misclassification probabilities- Quadratic Discriminant analysis
<b>4.</b>	<b>Forecasting and Time series Analysis</b>
	Forecasting-Time Series Analysis- Additive & Multiplicative Models-Exponential smoothing techniques Forecasting Accuracy- Auto-regressive and moving average models-Demo using Excel, R, Python.

## REFERENCES:

- Trevor Hastie, Robert Tibshirani, Jerome Friedman, The Elements of Statistical Learning- Data Mining, Inference, and Prediction, Second Edition, Springer Verlag, 2009.
- C.M.Bishop –Pattern Recognition and Machine Learning, Springer, 2006.
- L. Wasserman-All of statistics.
- Gareth James. Daniela Witten. Trevor Hastie Robert Tibshirani. An Introduction to Statistical Learning with Applications in R.
- Peter J. Brockwell and Richard A. Davis, Introduction to time series and forecasting, Springer, 2003.
- M. K. Goon, A. M. Gupta and B. Dasgupta, Fundamentals of statistics, vol. II, The World Press Private Limited, Calcutta, 1968.
- S.C Gupta and V.K. Kapoor, Fundamentals of applied statistics, Sultan Chand & Sons, 2007.
- A.M. Kshirsagar, A course in linear models, Statistics Series, M. Dekker, 1983.
- A. Sen and M. Srivastava, Regression analysis: Theory, methods, and applications, Springer, 1990.

## EXAMINATION PATTERN

(Under Choice Based Credit, Grading and Semester System)

(With effect from Academic Year: 2024-2025)

(Evaluation pattern)

### 1. Continuous Internal Evaluation System:

<b>Continuous Internal Evaluation (CIE)</b>	<b>40 Marks</b>
The internal evaluation of 40 marks for M.Com for each semester would be of tests and of class participation, project, case study analysis, Case lets, PowerPoint presentations, group discussion, book review, Research paper, article analysis and any other mode depending on the nature and scope of the course. Continuous Internal Evaluation (CIE), to be conducted by the subject teacher all through the semester. The total mark break up would be suitably divided and the total marks scored by the learner would be submitted to the Controller of Examination.	

## 2. Question Paper Pattern (Practical/ Theory Courses) :

Maximum Marks: 60

Questions to be set: 04

Durations: 02 hrs

**All Questions are compulsory carrying 15 Marks each:**

Question No	Particulars	Marks
Q1	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q2	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q3	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q4	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks

*Note: Full-Length questions of 15 Marks may be divided into two sub-questions of 08 and 07 marks.*

*Revised Syllabus of Courses of Master of Commerce (M.Com) Business Analytics Program  
at Semester IV*

*(Mandatory Course)*

*Financial Model Based Analytics - II*

**Modules at a glance**

SN	Modules	No. of lectures
1	Efficient Markets Hypothesis	15
2	Equity Valuation Models	15
3	Options Theory: An Introduction	15
4	Options Pricing	15
	<b>Total</b>	<b>60</b>

SN	Course Objectives
1	To appreciate the setting of distribution of share price returns.
2	To enable the student to quantitatively apply theories around equity valuation and diversification across asset classes.
3	To impart learning around options theory in order to improve analytical understanding.

Course Outcome No.	Course Outcomes
CO 1	Understand the Efficient Markets Hypothesis (EMH) and its implications for financial markets. Evaluate the impact of information efficiency on investment decisions and market dynamics.
CO 2	Acquire proficiency in various equity valuation models, including discounted cash flow (DCF), comparable company analysis (CCA), and precedent transactions. Apply these models to assess the intrinsic value of stocks and make informed investment decisions.

CO 3	Gain a foundational understanding of options theory, exploring concepts such as call and put options, option strategies, and their role in risk management. Analyze the basics of option contracts and their application in financial markets.
CO 4	Develop expertise in options pricing models, including the Black-Scholes model. Learn how to calculate the fair value of options, assess factors influencing option prices, and apply this knowledge in making informed decisions in options trading and risk management.

SN	Modules/Units
<b>1.</b>	<b>Efficient Markets Hypothesis</b>
	<p>The three primary forms viz. weak form, semi-strong form, and strong form</p> <p>Evidence from the testing of the EMH</p> <p>Random walk theory and its links to the Brownian motion model</p> <p>Share price modelling using standard Brownian motion and its links to the lognormal distribution of share price returns, Limitations of lognormal distribution as seen from EMH evidence</p>
<b>2.</b>	<b>Equity Valuation Models</b>
	<p>Dividend discount model, Capital Asset Pricing models</p> <p>Security market line and Capital market line, and market price of risks</p> <p>Models of asset returns viz. multifactor models, including orthogonality, single index models, Modern portfolio theory including optimization of the risk-return trade-off</p> <p>Benefits and traits of diversification for reducing diversifiable and non-diversifiable risks, especially covariance and beta related risks.</p>
<b>3.</b>	<b>Options Theory: An Introduction</b>
	<p>Introduction to the six Greeks in options</p> <p>Call and Put options with Put-Call parity theory</p> <p>Delta-hedging for option writers</p> <p>Forward contract and equity futures pricing</p> <p>Payoffs of various options including synthetic OTC option products</p>
<b>4.</b>	<b>Options Pricing</b>

<p>Binomial model for equity options</p> <p>Black-Scholes-Merton model for equity options</p> <p>Black's model for interest rate floor</p> <p>Application of options pricing to develop a hedging portfolio</p> <p>ESOP valuation and appreciation of IFRS 2/ Ind AS 102</p> <p>Valuation of Restricted Stock Units whilst appreciating martingale theory</p> <p>Introduction to state price deflators.</p>
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## REFERENCES:

- Elton, Edwin J., Martin J. Gruber, Stephen J. Brown, and William N. Goetzmann. Modern portfolio theory and investment analysis. John Wiley & Sons, 2009.
- Davis, Mark, and Alison Etheridge. "Louis Bachelier's theory of speculation." URL: <https://f-origin.hypotheses.org/wp-content/blogs.dir/1596/files/2014/12/Mark-Davis-Talk.pdf> (2006).
- Hull, John C. Options futures and other derivatives. Pearson Education India, 2003.
- Baxter, Martin, Andrew Rennie, and Andrew JO Rennie. Financial calculus: an introduction to derivative pricing. Cambridge university press, 1996.
- Panjer, Harry H., D. Dufresne, H. U. Gerber, H. H. Mueller, H. W. Pedersen, S. R. Pliska, M. Sherris, E. S. Shiu, and K. S. Tan. Financial Economics: With Applications to Investments, Insurance, and Pensions. Edited by Phelim P. Boyle, and Samuel H. Cox. Schaumburg, Ill.: Actuarial Foundation, 1998.
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- Macdonald, Robert L. Derivatives Markets. Pearson new international edition 2013.
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## EXAMINATION PATTERN

(Under Choice Based Credit, Grading and Semester System)

(With effect from Academic Year: 2024-2025)

(Evaluation pattern)

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<b>Continuous Internal Evaluation (CIE)</b>	<b>40 Marks</b>
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## 2. Question Paper Pattern (Practical/ Theory Courses) :

Maximum Marks: 60

Questions to be set: 04

Durations: 02 hrs

**All Questions are compulsory carrying 15 Marks each:**

Question No	Particulars	Marks
Q1	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q2	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q3	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q4	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks

*Note: Full-Length questions of 15 Marks may be divided into two sub-questions of 08 and 07 marks.*

*Revised Syllabus of Courses of Master of Commerce (M.Com) Business Analytics Program  
at Semester IV*

*(Elective Course)*

*International Financial Reporting Standards*

**Modules at a glance**

<b>SN</b>	<b>Modules</b>	<b>No. of lectures</b>
1	Conceptual Foundations of Financial Statements	15
2	Presentation of Financial Statements	15
3	Indian Accounting Standards for Assets, Liabilities and Revenue	15
4	Presentation of Single Entity Financial Statements Covered by IFRS Convergence	15
	<b>Total</b>	<b>60</b>

<b>SN</b>	<b>Course Objectives</b>
1	This course aims at giving the students the Conceptual Foundations of Financial Statements and Indian Accounting Standards for Assets, Liabilities and Revenue.

<b>Course Outcome No.</b>	<b>Course Outcomes</b>
CO 1	Develop a strong understanding of the conceptual framework underlying financial statements, including the principles and assumptions that guide their preparation, enhancing the ability to analyze and interpret financial information.
CO 2	Acquire skills in effectively presenting financial information in statements, ensuring clarity, compliance with reporting standards, and facilitating meaningful analysis by stakeholders.
CO 3	Explore and apply Indian Accounting Standards (Ind AS) related to assets, liabilities, and revenue recognition. Gain insights into the specific requirements and principles governing the preparation of financial statements under these standards.

CO 4	Understand the convergence of Indian Accounting Standards with International Financial Reporting Standards (IFRS) in the presentation of single entity financial statements. Analyze the changes and updates to reporting requirements, ensuring alignment with global financial reporting standards.
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SN	Modules/Units
<b>1.</b>	<b>Conceptual Foundations of Financial Statements</b>
	The objective of financial reporting, - The main assumptions, Qualitative characteristics of financial reporting, Elements of Financial Statements: recognition and measurement
<b>2.</b>	<b>Presentation of Financial Statements</b>
	Accounting standards: Role/objectives of accounting standards, Development of accounting standards in India - Requirements of international accounting standards - International organizations engaged in accounting harmonization - IASB - FASB - Role of IASB in developing accounting standards  IFRS:- Introduction, scope ; Indian Accounting standards (Ind AS): Introduction Road map; Comparison of Ind AS, IFRS and AS ; Conceptual framework ; Definition of financial elements Principles of recognition, measurements, presentation and disclosure. (Theory and Practical)
<b>3.</b>	<b>Indian Accounting Standards for Assets, Liabilities and Revenue</b>
	Valuation of Inventories, Cash flow statement, Accounting for tangible non-current assets, Accounting for intangible assets, Accounting for impairment of assets, Accounting for borrowing costs, Investment property, Revenue from contracts with customers, Income tax, Employee benefits, Provisions, contingent liabilities and contingent assets (Theory and Practical)
<b>4.</b>	<b>Presentation of Single Entity Financial Statements Covered by IFRS Convergence</b>
	(Ind AS 1): Accounting policies, accounting estimates; (IAS 8 and Ind AS 8) - Events after reporting date; (IAS10 and Ind AS 10) - Structure and contents of financial statements - Preparation of financial statements: Statement of Financial Position (SOFP) - Statement of Profit or Loss (SOPL) - Statement of Changes in Equity(SOCE)- Cash Flow Statement (SOCF); (IAS 7 and Ind AS 7). · (Theory and Practical)

## REFERENCES:

- Indian Accounting Standards and IFRS for non-financial executives: By T.P. Ghosh Taxman
- Jan Williams: Financial & Managerial Accounting.
- Maurice D. Levi – International Finance: Tata Mc Graw Hill.
- P .Chandra: Financial Management:
- Dr. S. N. Maheshwari: Corporate Accounting
- Mukherjee, Hanif: Corporate Accounting
- Steven Collings: IFRS for Dummies

## EXAMINATION PATTERN

(Under Choice Based Credit, Grading and Semester System)

(With effect from Academic Year: 2023-2024)

(Evaluation pattern)

### 1. Continuous Internal Evaluation System:

<b>Continuous Internal Evaluation (CIE)</b>	<b>40 Marks</b>
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## 2. Question Paper Pattern (Practical/ Theory Courses) :

Maximum Marks: 60

Questions to be set: 04

Durations: 02 hrs

**All Questions are compulsory carrying 15 Marks each:**

Question No	Particulars	Marks
Q1	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 arks
Q2	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 arks
Q3	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 arks
Q4	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks

*Note: Full-Length questions of 15 Marks may be divided into two sub-questions of 08 and 07 marks.*

**Revised Syllabus of Courses of Master of Commerce (M.Com) Business Analytics Program  
at Semester IV**

**(Elective Course)**

**Supply Chain Design and Management**

**Modules at a glance**

<b>SN</b>	<b>Modules</b>	<b>No. of lectures</b>
1	Introduction to Supply Chain Management	15
2	Perspectives of SCM	15
3	Introduction to Logistics	15
4	Design of SCM, Logistics and Use of Internet	15
	<b>Total</b>	<b>60</b>

<b>SN</b>	<b>Course Objectives</b>
1	To understand how Logistics, Supply Chain, Operations, Channels of Distribution fit in to various types of Business viz., Manufacturing, Service and Project.
2	To understand how Managers, take decisions in Logistics and supply chain management functional area.
3	To understand how Transportation and Warehouse functions fits into Logistics & Supply Chain Management.

<b>Course Outcome No.</b>	<b>Course Outcomes</b>
CO 1	Develop a foundational understanding of supply chain concepts, including the end-to-end processes involved in the production, distribution, and delivery of goods and services. Gain awareness of the critical role supply chain management plays in organizational success.
CO 2	Explore various perspectives within supply chain management, considering factors such as strategic, operational, and global viewpoints. Develop the ability to analyze and evaluate supply chain decisions from different angles, contributing to effective strategic planning.

CO 3	Acquire knowledge of logistics principles, covering transportation, warehousing, inventory management, and order fulfillment. Understand the role of logistics in optimizing the movement of goods through the supply chain, and develop skills to enhance operational efficiency.
CO 4	Learn how to design and optimize supply chain and logistics processes, incorporating the use of the internet for improved communication and coordination. Gain insights into digital technologies and their impact on modern supply chain management, ensuring alignment with industry best practices.

SN	Modules/Units
<b>1.</b>	<b>Introduction to Supply Chain Management</b>
	Supply Chain Management: Concept, Features, Evolution, Importance, Process and Barriers of Supply Chain Management. Principles and Strategies: Principles, Supply Chain Strategies – Organizations, Coordination, Innovation and Forecasting. Participants in SCM: Supply chain intermediaries- Concept and Types, Channels of Distribution for Industrial. Goods and Consumer Goods, Channel of Distribution at Services Level, Factors for selection of suitable channels.
<b>2.</b>	<b>Perspectives of SCM</b>
	Global perspectives: Measuring and analyzing the value and efficiency of global Supply Chain Networks, Global market forces, Types of global supply chain; Indian Perspectives: Measuring and Analyzing the value and efficiency of domestic Supply Chain Networks, Economic effects of supply chains; Customer Perspectives: Customer values, Role of customers and Ways of improving customer services in SCM.
<b>3.</b>	<b>Introduction to Logistics</b>
	Logistics Management: Concept and Process, Competitive Advantages and Three C's, Changing Logistics; Environment, Reverse Logistics, Importance of Inventory Control, Bull-whip effect Transportation and Warehousing: Transport Functions and Participants in Transportation Decisions, Transport Infrastructure- Forms, Warehouse Functions and Operations. Packaging and Materials Management- Consumer and Industrial Goods Packaging - Importance, Factors influencing Materials Planning, Preservation Safety and Measures of Materials Handling.
<b>4.</b>	<b>Design of SCM, Logistics and Use of Internet</b>
	SCM Plan- Demand Planning, Source of Procurement, Production or Assembly Steps, Sales return of defective or excess goods. Use of Internet in SCM- E-market places, E-procurement, E-logistics, E-fulfillment. Operative Systems in SCM: Enterprise Resource Planning (ERP), Performance Modeling of supply chains using Markov chains, Inventory Control Importance, Pareto's Law. New Horizon in Supply chain Management ( Careers).

## **REFERENCES:**

- Modeling the Supply Chain-2nd edition; Shapiro, Jeremy F, Duxbury Applied Series
- Logistics and Supply Chain Management; Christopher, M (1992), Pitman Publishing, London.
- Logistics and Supply Chain Management Cases and Concepts; Raghuram and Rangaraj, Macmillan
- Supply Chain Management; N. Chandrasekaran, Oxford
- Supply Chain Logistics Management-2nd Edition; Bowersox, Closs, Cooper, McGraw Hill
- Supply Chain Management; Dubey, Kumar Sai, New Century

## EXAMINATION PATTERN

(Under Choice Based Credit, Grading and Semester System)

(With effect from Academic Year: 2023-2024)

(Evaluation pattern)

### 1. Continuous Internal Evaluation System:

<b>Continuous Internal Evaluation (CIE)</b>	<b>40 Marks</b>
The internal evaluation of 40 marks for M.Com for each semester would be of tests and of class participation, project, case study analysis, Case lets, PowerPoint presentations, group discussion, book review, Research paper, article analysis and any other mode depending on the nature and scope of the course. Continuous Internal Evaluation (CIE), to be conducted by the subject teacher all through the semester. The total mark break up would be suitably divided and the total marks scored by the learner would be submitted to the Controller of Examination.	

## 2. Question Paper Pattern (Practical/ Theory Courses) :

Maximum Marks: 60

Questions to be set: 04

Durations: 02 hrs

**All Questions are compulsory carrying 15 Marks each:**

Question No	Particulars	Marks
Q1	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q2	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q3	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks
Q4	A) Practical/ Theory Question OR	15 Marks
	B) Practical/ Theory Question	15 Marks

*Note: Full-Length questions of 15 Marks may be divided into two sub-questions of 08 and 07 marks.*

*Revised Syllabus of Courses of Master of Commerce (M.Com) Business Analytics Program  
at Semester IV*

*(Elective Course)*

***Foundation of Behavioural Finance Analysis***

**Modules at a glance**

<b>SN</b>	<b>Modules</b>	<b>No. of lectures</b>
1	Behavioural Finance: Introduction	15
2	Utility/ Preference Functions	15
3	Behavioural Factors and Financial Markets	15
4	Heuristics and Behavioural Biases of Investors	15
	<b>Total</b>	<b>60</b>

<b>SN</b>	<b>Course Objectives</b>
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 decisionmakers and for financial markets.
3	Students will be able to have a good understanding of the major concepts and topics of behavioural finance.

<b>Course Outcome No.</b>	<b>Course Outcomes</b>
CO 1	Develop a foundational understanding of behavioural finance, exploring the psychological factors influencing decision-making in financial markets. Gain insights into the historical evolution of behavioural finance and its relevance in explaining deviations from traditional financial theories.
CO 2	Understand utility and preference functions as essential concepts in behavioral finance, exploring how individuals assess and prioritize financial choices based on their preferences. Apply utility functions to analyze decision-making processes and evaluate their impact on financial behaviour.

CO 3	Explore various behavioural factors that influence financial markets, including emotions, social interactions, and cognitive biases. Analyze the implications of these factors on market dynamics, asset pricing, and the formation of financial bubbles.
CO 4	Examine common heuristics and behavioural biases that shape investor decision-making, such as overconfidence, loss aversion, and anchoring. Develop the ability to identify and evaluate these biases in real-world financial scenarios, enhancing decision-making processes in investment management.

SN	Modules/Units
<b>1.</b>	<b>Behavioural Finance</b>
	Introduction to Behavioural 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.
<b>2.</b>	<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.
<b>3.</b>	<b>Behavioural 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 behavioural factors - Active Portfolio Management: return statistics and sources of systematic underperformance. - Fundamental information and technical analysis – the case for psychological influence.
<b>4.</b>	<b>Heuristics and Behavioural 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.

#### REFERENCES:

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- 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.
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  - 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.

## EXAMINATION PATTERN

(Under Choice Based Credit, Grading and Semester System)

(With effect from Academic Year: 2023-2024)

(Evaluation pattern)

### 1. Continuous Internal Evaluation System:

<b>Continuous Internal Evaluation (CIE)</b>	<b>40 Marks</b>
The internal evaluation of 40 marks for M.Com for each semester would be of tests and of class participation, project, case study analysis, Case lets, PowerPoint presentations, group discussion, book review, Research paper, article analysis and any other mode depending on the nature and scope of the course. Continuous Internal Evaluation (CIE), to be conducted by the subject teacher all through the semester. The total mark break up would be suitably divided and the total marks scored by the learner would be submitted to the Controller of Examination.	

## 2. Question Paper Pattern (Practical/ Theory Courses) :

Maximum Marks: 60

Questions to be set: 04

Durations: 02 hrs

**All Questions are compulsory carrying 15 Marks each:**

Question No	Particulars	Marks
Q1	i. Practical/ Theory Question OR	15 Marks
	ii. Practical/ Theory Question	15 Marks
Q2	i. Practical/ Theory Question OR	15 Marks
	ii. Practical/ Theory Question	15 Marks
Q3	i. Practical/ Theory Question OR	15 Marks
	ii. Practical/ Theory Question	15 Marks
Q4	iii. Practical/ Theory Question OR	15 Marks
	iv. Practical/ Theory Question	15 Marks

*Note: Full-Length questions of 15 Marks may be divided into two sub-questions of 08 and 07 marks.*

*Revised Syllabus of Courses of Master of Commerce (M.Com) Business Analytics Program  
at Semester IV*

**100 Marks Research/ Internship Project**

Inclusion of project work in the course curriculum of the M.Com. program is one of the ambitious aspects in the program structure. The main objective of inclusion of project work is to inculcate the element of research work challenging the potential of learner as regards to his/her eager to enquire and ability to interpret particular aspect of the study in his/ her own words. It is expected that the guiding teacher should undertake the counselling sessions and make the awareness among the learners about the methodology of formulation, preparation and evaluation pattern of the project work.

**Guidelines for preparation of Project Work**

Work load for Project Work is 01 (one) hour per batch of 15-20 learners per week for the teacher. The learner (of that batch) shall do field work and library work in the remaining 03 (three) hours per week.

*General guidelines for preparation of project work*

- The project topic may be undertaken in any area of Elective Courses.
- Each of the learners has to undertake a Project individually under the supervision of a teacher guide.
- The learner shall decide the topic and title which should be specific, clear and with definite scope in consultation with the teacher-guide concerned.
- University/college shall allot a guiding teacher for guidance to the students based on her / his specialization.
- The project report shall be prepared as per the broad guidelines given below:
  - Font type: Times New Roman
  - Font size: 12-For content, 14-for Title
  - Line Space : 1.5-for content and 1-for in table work
  - Paper Size: A4
  - Margin : in Left-1.5, Up-Down-Right-1
- The Project Report shall be bounded.
- The project report should be 60 to 80 pages.

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