

आंध्रप्रदेश केंद्रीय विश्वविद्यालय
CENTRAL UNIVERSITY OF ANDHRA PRADESH
Jnana Seema, Ananthapuramu, India - 515701
DEPARTMENT OF COMMERCE
SCHOOL OF COMMERCE AND MANAGEMENT

Master's Programme
(As per the National Credit Framework 2023)



Vidya Dadati Vinayam
(Education Gives Humility)

Master of Commerce



Programme Structure
(Effective from Academic Year 2026 - 27)

Master of Commerce
Department of Commerce
School of Commerce and Management

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1. Introduction to the Programme

The Department of Commerce at the Central University of Andhra Pradesh stands out as a unique institution, offering specialized education in commerce-related disciplines. With a thoughtfully designed curriculum, students explore diverse courses and can expand their intellectual horizons. The department's undergraduate and postgraduate programs cultivate an understanding of modern business challenges and opportunities. The department is dedicated to providing holistic education for the overall development of the students to face the challenges in the dynamic world of business, making it an invaluable asset to the academic landscape. Beyond academics, the department serves as a vibrant hub for research, innovation, and professional development, fostering a community of forward-thinking scholars poised to make significant contributions to various industries and sectors.

The M.Com programme aims to produce competent and well-equipped postgraduates capable of making meaningful contributions to the business world, armed with theoretical knowledge and practical experience. Over four semesters, apart from the core courses, students explore specialized electives in the areas of analytics in accounting and finance, strategic finance and investment management, and financial services management. The specialized curricula underscore CUAP's commitment to equipping students with the expertise necessary to succeed in modern business management. Adopting a multidisciplinary approach, the programme equips graduates with versatile expertise suitable for different roles in various sectors. These practical components deepen students' understanding and foster professional growth, ensuring they are well-equipped to thrive in multiple professional settings.

2. Programme Vision

Instill knowledge, skills, and abilities to enrich the qualities of strength, thoughtfulness, and resilience, nurture intellectual curiosity, foster diversity, and cultivate a passion for lifelong learning to shape future business leaders, researchers, academicians, and conscientious members of society.

3. Programme Educational Objectives (PEOs)

- PEO1. Create an environment that stimulates the development of students in intellectual, social, cultural, ethical, and spiritual dimensions to citizenship, gainful employment, and lifelong learning in an interdependent world.
- PEO2. Encourage diverse, adaptable, and applied instructional pedagogies that serve students' varied learning styles.
- PEO3. Fill the institute-industry gap by involving the industry, faculty, research scholars, and students in academic and industry research to meet the challenges of the real-world environment.
- PEO4. Collaborate with corporate partners and other stakeholders through MoUs to train the students to meet the demands of a global society and workforce.
- PEO5. Facilitate and support faculty, scholars, and students by encouraging them to pursue patents, publications, and research grants, to enhance academic stature.
- PEO6. Build a robust alumni and student mentorship circle and professional exchange networks to foster holistic student wellness, development, integrity, leadership, and resilience.

4. Programme Outcomes (POs)

The purpose of this programme is to equip students with advanced knowledge and practical skills in Commerce, Accounting, Finance and Business. After successful completion of the programme, students will be able to:

- PO1: Apply modern principles of accounting and finance to business, corporate, and institutional settings.
- PO2: Interpret and analyze financial statements, taxation mechanisms, and regulations for informed business decisions.
- PO3: Apply quantitative, analytical, and spreadsheet-based tools in the resolution of problems encountered in commerce and business.
- PO4: Demonstrate ability in the preparation and reporting of financial statements as per recognized norms and standards in Ind-AS, IFRS, and corporate taxation and GST procedures.
- PO5: Demonstrate understanding in terms of research methodology and techniques used in the process of academic and business research.
- PO6: Integrate advanced technologies such as Artificial Intelligence, Machine Learning, and Data Visualization for the analysis of business and financial processes.
- PO7: Enhance good communication, presentation, and interpersonal skills required for business settings.
- PO8: Develop a professional approach towards legal, ethical, and social responsibilities in the practice of finance and business.
- PO9: Develop entrepreneurial, strategic, and managerial capabilities for careers in industry, academia, consultancy, and research.

5. Programme-Specific Outcomes (PSOs)

The learning outcomes are designed to equip students with the knowledge, skills, and abilities necessary to succeed in careers related to Commerce, Accounting, Finance and Business Analytics:

- PSO1:** Demonstrate comprehensive knowledge and practical skills in accounting, taxation, auditing, finance, and business regulations for effective decision-making in corporate and institutional environments.
- PSO2:** Apply analytical, quantitative, and technology-driven tools including spreadsheet applications, financial software, Artificial Intelligence, Machine Learning, and Data Visualization techniques, to solve complex business and financial problems.
- PSO3:** Prepare, interpret, and evaluate financial reports and tax procedures in accordance with national and international standards such as Ind-AS, IFRS, Corporate Taxation, and GST regulations.
- PSO4:** Develop research, entrepreneurial, managerial, and professional competencies to pursue careers in commerce, finance, consultancy, academia, entrepreneurship, and business research with ethical and social responsibility.
- PSO5:** Exhibit effective communication, leadership, teamwork, and interpersonal skills required for professional success in business organizations, financial institutions, consultancy services, and entrepreneurial ventures.

5. Pedagogy of the Programme

The pedagogy of the programme is designed with the combination of Student-Centric Learning, Group Discussions on current topics, developing Case Studies with local community and business, Guest Lectures by industry experts, Interactive Sessions, Internship and Project Based Learning, Research Orientation, Seminars & Software oriented workshops on current topics, Tutorial & Assignments, Class test / Open book test. It aims to equip students with the necessary knowledge, skills, and competencies to excel in diverse Commerce, Finance, and Business Management roles. The combination of theoretical learning, practical experiences, and experiential opportunities prepares the students to navigate complex business environments and make meaningful contributions to their organizations and society.

6. Programme Structure

- The Master of Commerce is a two-year postgraduate programme divided into four semesters, comprising a total of 94 credits.
- The curriculum integrates Core Courses, Discipline-Specific Electives, Multidisciplinary Courses, MOOCs, Skill/Internship Components, and Dissertation Work, ensuring a balanced and comprehensive learning journey.
- **Semester-wise Structure:**
 - **Semester I:** Foundational courses in Management Principles, Organisational Behaviour, Economics for Managers, Managerial Accounting, Business Analytics using Spreadsheets and Business Communication I, supported by one MOOC. Includes practical lab components, such as Excel for Business and the Communication Skills Lab, for experiential learning.
 - **Semester II:** Advanced courses in Financial Markets and Institutions, Financial Analysis and Reporting, Data Visualization, Strategic Cost Management, Corporate Tax Planning, and Business Communication II, one MOOC, and a compulsory core course. Practical sessions and case-based learning strengthen managerial and analytical skills.
 - **Semester III:** Specialised courses in Research Methodology along with electives in Analytics in Accounting and Finance, Strategic Finance and Investment Management, Marketing of Financial Products, a MOOC, and a skill-based internship/project component. Multiple lab and workshop activities ensure hands-on exposure to managerial decision-making and industry practices.
 - **Semester IV:** Dedicated to Dissertation/Project Work (8 credits) and advanced core courses such as Goods and Services Tax, along with electives, students are to apply managerial knowledge to real-world business challenges and research-oriented problem solving.

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Semester and Course-wise Credits Distribution

Semester	Core Course Credits				DSE Credits		IDE Credits		CCC Credits				SIP Credits		Dissertation Credits		Total Credits
	Code	L	T/P	Total	Code	Total	Code	Total	Code	L	T/P	Total	Code	Total	Code	Total	
1	MCO101	3	1	4	-	-	MCO111 (MOOC I)	2	-	-	-	-	-	-	-	-	24
	MCO102	3	1	4													
	MCO103	3	1	4													
	MCO104	3	1	4													
	MCO105	3	1	4													
	MCO106	1	1	2													
	TOTAL	16	6	22	-	-	-	2	-	-	-	-	-	-			
II	MCO201	3	1	4	-	-	MCO211 (MOOC II)	2	MCO213	2	2	4	-	-	-	-	28
	MCO202	3	1	4													
	MCO203	3	1	4													
	MCO204	2	2	4													
	MCO205	3	1	4													
	MCO206	1	1	2													
	TOTAL	15	7	22	-	-	-	2	-	2	2	4	-	-	-	-	
III	MCO301	3	1	4	Elective I	4	MCO311 (MOOC III)	2	MCO313	1	1	2	MCO314	2	-	-	22
					Elective II	4											
					Elective III	4											
	TOTAL	3	1	4	-	12	-	2	-	1	1	2	-	2	-	-	
IV	MCO401	3	1	4	Elective IV	4	-	-	-	-	-	-	-	-	MCO411	8	20
					Elective V	4											
	TOTAL	3	1	4		8	-	-	-	-	-	-	-	-	-	8	
Total Courses	14	-	-	-	5	-	3	-	2	-	-	-	1	-	1	-	26
Total Credits	-	37	15	52	-	20	-	6	-	3	3	6	-	2	-	8	94
Percentage	-	39.36	15.96	55.32	-	21.27	-	6.38	-	3.19	3.19	6.38	-	2.13	-	8.52	100

Note- 01: L: Lecture T: Tutorial P: Practical DSE: Discipline Specific Elective
IDE: Inter-disciplinary Electives CCC: Common Compulsory Course SIP: Summer Internship Project

Note- 02: In Semester III, L-T-P. Will be in accordance with the DSE Credits.

Note- 03: Elective courses selected in Semester III shall be assigned course codes beginning with “3 __”, while courses selected in Semester IV shall be assigned course codes beginning with “4 __”.

Note- 04: MOOCs shall be taken by the students from platforms suggested/approved by the department.

Note – 05: The programme template and course titles are tentative. Any required changes may be made.

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Programme Structure

Semester I						
Sl. No.	Course Code	Title of the Course	Credit Points	Credit Distribution		
				L*	T*	P*
1	MCO101	Management Process & Organisational Behaviour	4	3	1	0
2	MCO102	Business Analytics using Spreadsheets	4	3	0	1
3	MCO103	Business Economics	4	3	1	0
4	MCO104	Accounting Standards-Ind-AS and IFRS	4	3	1	0
5	MCO105	Corporate Finance	4	3	0	1
6	MCO106	Business Communication I	2	1	1	0
7	MCO111	*IDE-I: MOOCs	2	2	0	0
Total			24	17	5	2

Semester II						
Sl. No.	Course Code	Title of the Course	Credit Points	Credit Distribution		
				L*	T*	P*
1	MCO201	Financial Markets and Institutions	4	3	1	0
2	MCO202	Financial Analysis and Reporting	4	3	1	0
3	MCO203	Data Visualization	4	2	1	1
4	MCO204	Strategic Cost Management	4	2	1	1
5	MCO205	Corporate Tax Planning	4	3	0	1
6	MCO206	Business Communication II	2	1	1	0
7	MCO211	*IDE – 2: MOOCs	2	2	0	0
8	MCO213 CCC	Introduction to Artificial Intelligence and Machine Learning	4	2	0	2
Total			28	16	7	5

Semester III						
Sl. No.	Course Code	Title of the Course	Credit Points	Credit Distribution		
				L*	T*	P*
1	MCO301	Research Methodology	4	3	1	0
2		Elective I	4			
3		Elective II	4			
4		Elective III	4			
5	MCO311	*IDE – 3: MOOCs	2	2		
6	MCO313 CCC	Building Mathematical Ability & Financial Literacy	2	2		

7	MCO314	Internship Report	2	0	2	
Total			22	6+ Elective Credits	4+ Elective Credits	2+ Elective Credits

Semester IV						
Sl. No.	Course Code	Title of the Course	Credit Points	Credit Distribution		
				L*	T*	P*
1	MCO401	GST & Customs Law	4	3	1	0
2		Elective IV	4			
3		Elective V	4			
4	MCO411	Dissertation	8		8	
Total			20	3+ Elective Credits	9+ Elective Credits	2+ Elective Credits

Note: L: Lectures; T: Tutorial; P: Practical

Note: In Semester III, L-T-P. Will be in accordance with the DSE Credits.

Discipline Specific Electives						
1. Analytics in Accounting and Finance						
Sl. No.	Course Code	Title of the Course	Credit Points	Credit Distribution		
				L*	T*	P*
1	MCO_16A	Accounting Information Systems	4	3	1	0
2	MCO_17A	Forensic Accounting and Auditing	4	3	1	0
3	MCO_18A	Machine Learning for Managers	4	3	0	1
4	MCO_19A	Blockchain Accounting and Cyber Security	4	3	0	1
5	MCO_20A	Financial Analytics	4	3	1	0
2. Strategic Finance and Investment Management						
Sl. No.	Course Code	Title of the Course	Credit Points	L*	T*	P*
1	MCO_16F	Investment Analysis and Portfolio Management	4	2	1	1
2	MCO_17F	Mergers and Acquisitions and Corporate Restructuring	4	3	1	0
3	MCO_18F	Financial Derivatives and Risk Management	4	3	0	1
4	MCO_19F	Financial Technology Innovation and Digital Finance	4	2	1	1
5	MCO_20F	International Finance Management	4	3	0	1
3. Financial Services Management						
Sl. No.	Course Code	Title of the Course	Credit Points	L*	T*	P*
1	MCO_16M	Financial Services Marketing	4	3	1	0
2	MCO_17M	Digital Marketing	4	3	0	1
3	MCO_18M	Retail Banking	4	3	1	0
4	MCO_19M	Financial Technology Innovation and Digital Finance	4	2	1	1
5	MCO_20M	Wealth Management and Financial Planning	4	3	0	1

Semester-wise Credit Distribution

Semester	Total Credits	Cumulative credit at the end of the semester
1	24	24
II	28	52
III	22	74
IV	20	94

I. Credit Requirement

- The minimum number of credits required to be earned by a student for the award of the degree is **94**.
- Students may earn credits in excess of 94 by opting for additional courses; however, the upper limit shall not exceed **96 credits**.

II. Assessment Pattern: Theory Courses:

- **Internal (40%)** – Formative evaluation comprising two best out of three tests (each test carrying a maximum of 15 marks, totalling 30 marks), along with seminar/assignments/attendance (10 marks).
- **External (60%)** – Summative evaluation through the semester-end examination.

III. Assessment Pattern: Course with Laboratory Components:

- **Internal (60%)** – Continuous assessment through lab work and internal examination.
- **External (40%)** – Summative evaluation through the semester-end practical examination.

IV. End-Semester Examination: Theory Courses:

- Maximum Marks: **60**
- Duration: **3 Hours**

V. End-Semester Examination: Practical Courses:

- Maximum Marks: **40**
- Duration: **2 Hours**

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Important Information to Students

1. Eligibility: A Bachelor's degree in Commerce with at least 50% marks in aggregate from a recognised university.
2. The minimum duration for completing the M.Com Programme is four semesters (two academic years), and the maximum duration is eight semesters (four academic years) or as per amendments made by regulatory bodies from time to time.
3. A student should attend at least 75% of the classes, seminars, and practicals in each course of study.
4. All theory courses in the programme carry a Continuous Internal Assessment (CIA) component to a maximum of 40 marks and a Semester End Examination (SEE) for a maximum of 60 marks. The minimum pass mark for a course is 50%.
5. All lab components carry a Continuous Internal Assessment (CIA) component to a maximum of 60 marks and a Semester End Practical Examination (SEE) for a maximum of 40 marks. The minimum pass mark for a course is 50%.
6. A student should pass separately in both CIA and the SEE, i.e., a student should secure 20 (50%) out of 40 marks for theory and 30 (50%) out of 60 marks in the lab components in CIA. A student should secure 30 (50%) out of 60 marks for theory and 20 (50%) out of 40 marks for lab components in the SEE.
7. There are 3 CIA tests for each course per semester, from which the best 2 performances are considered for the purpose of calculating the marks in CIA. The academic unit maintains a record of the continuous assessment.
8. Each CIA contains 15 marks, and out of the best 2 test scores are considered for 30 marks. The remaining 10 marks are awarded for assignments, class presentations, class participation, and the student's punctuality.
9. A student failing to secure the minimum pass marks in the CIA is not allowed to take the semester-end examination of that course. S/he has to redo the course by attending special classes for that course and get the pass percentage in the internal tests to become eligible to take the end-of-semester examination.
10. Semester-end examination shall consist of objective-type questions, descriptive-type questions, short-answer questions and case studies or any other recommended by the Board of Studies (BoS).
11. Students failing a course due to lack of attendance should redo the course.
12. Re-evaluation is applicable only for SEE papers and shall not be entertained for other components such as lab/practical /thesis/ dissertation/ internship, etc.
13. An on-campus elective course is offered only if 10 or 50% of the students are registered, whichever is higher.

SEMESTER WISE DETAILED SYLLABUS

SEMESTER-I

Course Code : MCO 101 Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title MANAGEMENT PROCESS AND ORGANIZATIONAL BEHAVIOUR
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	—

Course Objectives:

The purpose of this course is:

1. To familiarize the students with basic management concepts and practices in business organizations.
2. To provide knowledge on the functional areas of management with the conceptual framework.
3. To make them understand the significance of human interactions in shaping the organizational culture and behavior.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Explain the importance & role of management in the business organizations.
2. **CO2:** Identifying various leadership styles and their suitability to the situation, problem.
3. **CO3:** Apply organizational behavior theories and concepts to individual work experiences.
4. **CO4:** Understand the influence of organizational culture on individual and group behavior.
5. **CO5:** Analyze management issues as related to organizational behavior.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	—	✓	✓	✓	—	✓	✓	—	—
CO2 Explain & interpret	✓	—	✓	—	✓	—	✓	—	—
CO3 Apply Models	—	—	—	✓	✓	—	✓	—	✓
CO4 Analyse & evaluate	—	—	—	—	✓	✓	—	✓	✓
CO5 Research & create	✓	—	—	—	—	✓	—	✓	—

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Introduction to Management: Concept, Definition, and Nature of Management – Evolution of Management thought– Purpose, Functions, Principles, and Levels of Management -Types and Roles of Managers (Mintzberg), and skills for Managers (Katz) -Social and Ethical Responsibilities of Managers – Recent Trends in Management Practices in the wake of Globalization.

Tutorial 1: Study of concepts, functions, principles, and levels of management; evolution of management thought; managerial roles and skills; social and ethical responsibilities of managers; recent trends in management practices under globalization.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Planning: Nature, Purpose, Process of Planning - Types of Plans – Premising & Forecasting, Decision Making: Concept, Process, Rationality in Decision; Management by Objectives – Organizing: Process - Formal and Informal Organizations – Departmentation - Span of Control – Delegation Vs Decentralization – Staffing.

Tutorial 2: Practical understanding of planning process, forecasting, decision making, management by objectives, organizational structure, delegation, decentralization, staffing, and departmentalization through case studies and organizational analysis.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Leading and Motivation: Concept of leading, Motivation: Significance, Process -Theories of Maslow, Herzberg, McClelland, Porter, and Lawler - Leadership: Trait Approach, Leadership Styles, Managerial Grid; Likert's Four Systems of Leadership – Effective Communication and its types, Advantages and Limitations– Controlling: Basis-Control Process - Techniques of control.

Tutorial 3: Study of leadership styles, motivation theories, communication process, managerial grid, Likert's leadership systems, and controlling techniques through group discussions and management situations.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Organizational Behavior: Fundamental Concepts- Models of OB- Understanding Individual behavior- Perception: Concept– Process- Learning: Concept- Theories of Learning, Personality – Concept, Types – Personality Theories - Attitudes- Johari Window 2X2 matrix, Transactional Analysis.

Tutorial 4: Practical exercises on organizational behavior models, perception, learning theories, personality types, attitudes, Johari Window, transactional analysis, and understanding individual and group behavior in organizations.

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Group Dynamics: Concept, Importance, Types of Groups, Group Formation, Group Development, Group Composition, Group Performance Factors; Organizational Conflict, Resolution of Conflicts; Culture and Determinants of Organizational Culture; Organizational Change, Concept, Need for Change, Resistance to Change; Theories of Planned Change; Organizational Development-Concept of OD, Organizational Diagnosis, OD Interventions.

Tutorial 5: Study of group formation, group performance, organizational conflict, organizational culture, planned change, resistance to change, and organizational development interventions through case studies and team activities.

Prescribed Texts:

1. Luthans, F. (n.d.). *Organizational behavior*. McGraw-Hill Education.
2. Prasad, L. M. (n.d.). *Principles and practice of management*. Sultan Chand & Sons.
3. Robbins, S. P., & Judge, T. A. (n.d.). *Organizational behaviour*. Pearson Education.
4. Robbins, S. P., Coulter, M., & DeCenzo, D. A. (n.d.). *Management*. Pearson Education.

References:

1. Luthans, F. (n.d.). *Organizational behavior*. Tata McGraw-Hill.
2. Robbins, S. P. (n.d.). *Management* (7th ed.). Pearson Education.

Suggested Certifications / Value Additions:

1. **Alison** - Organizational Behaviour, Leadership, Management Skills
<https://alison.com/course/organizational-behavior-and-management?msocid=05e08c07d7926f8338669a6ed6f36efb>
2. **Great Learning Academy**- Organizational Behaviour, HR, Management basics
<https://www.mygreatlearning.com/academy/learn-for-free/courses/organizational-behaviour>
3. **NPTEL/Swayam** - Principles of Management
https://onlinecourses.nptel.ac.in/e-learning/preview/noc26_mg72
4. **Swayam** - Understanding Organizational Behaviour
https://onlinecourses.swayam2.ac.in/e-learning/preview/imb24_mg47

Course Code : MCO 102 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Business Analytics Using Spreadsheets
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45Hours)	-----	1 (30 Hours)

Course Objectives:

1. Provide an understanding of the fundamentals and applications of Business Analytics.
2. Develop proficiency in MS Excel for data analysis and visualization.
3. Familiarize students with statistical and sampling techniques for business data analysis.
4. Enable the application of correlation, regression, and time series methods for forecasting.
5. Strengthen analytical and problem-solving skills through practical exercises.

Course Outcomes (COs):

Upon successful completion of the course, students will be able to:

1. **CO1:** Demonstrate an understanding of Business Analytics concepts, statistical techniques, and analytical tools used in business decision-making.
2. **CO2:** Explain the role of Business Analytics, descriptive statistics, probability, and forecasting techniques in solving managerial and business problems.
3. **CO3:** Apply Excel-based tools and analytical methods for data management, data visualisation, and business data analysis.
4. **CO4:** Analyse business data using sampling techniques, hypothesis testing, confidence intervals, correlation, regression, and time series methods to derive meaningful insights.
5. **CO5:** Develop dashboards, analytical reports, and forecasting models to support data-driven managerial and strategic decision-making.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓					✓
CO2 Explain & interpret	✓	✓		✓					✓
CO3 Apply Models		✓	✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓					✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Introduction to Business Analytics: Business Analytics Concepts – Analytics v/s Analysis– Applications of Analytics – Different Kinds of Analytics – Types of Analytical Tools – Identifying Problems & Opportunities through Data Analytics – Framing a Business Problem as an Analytical Problem – Analytical Approaches for Decision Making.

Lab 1: Introduction to Excel: Introduction to Microsoft Excel Workbook & worksheet basics, rows/columns/cells, data entry & formatting, sorting & filtering, basic formulas (SUM, AVERAGE, COUNT, MIN, MAX), data cleaning (remove duplicates), basic charts (bar, pie).

Lab 2: Data Analysis using Excel: Pivot Tables, conditional formatting, logical functions (IF), trend and pattern identification, basic dashboards, problem framing using data, and decision-oriented analysis using Microsoft Excel

Unit-II: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Descriptive Statistics: Descriptive Statistics in Business Analytics, Measure of central tendency, Measure of dispersion, Measure of skewness and Kurtosis.

Lab 3: Calculation of Measures of Central Tendency in Excel

Lab 4: Measure of Dispersion and Skewness & Kurtosis in Excel

Unit-III: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Probability Distribution: Basic concepts of probability and probability distribution. Discrete and continuous distributions (Bernoulli, Binomial, Negative Binomial, Poisson, Exponential, Normal), Standardization of data and Z-scores. Sampling techniques and sample size determination; estimating population parameters and calculating confidence intervals; hypothesis testing and P-values.

Lab 5: Calculation of probabilities and Z - Scores in Excel

Lab 6: Calculation of sampling and confidence in Excel

Unit-IV: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Bi – Variate Analysis: Meaning and Types of Correlation, Karl Pearson's Correlation, Rank Correlation, Regression Analysis, Simple and Multiple Regression, Regression Coefficients, Coefficient of Determination, Prediction and Forecasting, Applications in Business and Research.

Lab 7: Calculation of Probabilities and Z - Scores in Excel

Lab 8: Calculation of sampling and confidence in Excel

Unit-V: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Time Series Analysis: Meaning and Components of Time Series, Trend Analysis, Moving Averages, Least Squares Method, Seasonal Variations and Seasonal Indices, Cyclical and Irregular Variations, Forecasting Techniques, Applications in Business and Economic Decision-Making.

Lab 9: Collect time-series data relating to sales, prices, production, rainfall, or stock market indices.

Lab 10: Analyze trend and seasonal variations using moving averages and forecasting techniques

Prescribed Texts:

1. Statistics for Management – Richard I. Levin & David S. Rubin (Pearson Education)
2. Fundamentals of Statistics – S. C. Gupta (Himalaya Publishing House)
3. Business Analytics – James R. Evans (Pearson Education)

References:

1. Spiegel, M. R. (Year). *Theory and Problems of Statistics*. Schaum's Outline Series. [McGraw Hill Education](#)
2. Mizrahi, A., & Sullivan, J. (Year). *Mathematics for Business and Social Sciences*. [Wiley](#)
3. Schniederjans, M. J. (Year). *Business Analytics: Principles, Concepts, and Applications*. [Pearson Education](#)
4. Prasad, R. N., & Acharya, S. (Year). *Fundamentals of Business Analytics*. [Wiley India](#)

Suggested Certifications / Value Additions:

1. Business Intelligence & Analytics – NPTEL (IIT Madras) <https://nptel.ac.in/courses/106106361>
2. Excel for Business Analysts – Alison <https://alison.com/course/excel-for-business-analysts>
3. Mastering Data Analysis using Microsoft Excel – Alison <https://alison.com/course/mastering-data-analysis-using-microsoft-excel-formulas-and-pivot-tables>
4. Data Analysis: Visualisations in Excel – OpenLearn (The Open University) <https://www.open.edu/openlearn/science-maths-technology/data-analysis-visualisations-excel/content-section-0>

Course Code : MCO 103 Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Business Economics
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45Hours)	1 (15 Hours)	—

Course Objectives:

1. To familiarize the students with economic concepts and theories and their application in managerial decision-making.
2. Analyzing business economic problems and suggesting suitable solutions to help managers make better decisions.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Explain the fundamental concepts, principles, and applications of managerial economics in business decision-making processes.
2. **CO2:** Analyze microeconomic theories, including demand, supply, production, cost, and pricing concepts, to interpret market behavior and business performance.
3. **CO3:** Apply the principles of demand and supply to evaluate market changes and their impact on consumers, producers, and organizational decisions.
4. **CO4:** Differentiate and evaluate various market structures and pricing practices adopted by firms under different competitive conditions.
5. **CO5:** Assess the relationship between production, cost, and market mechanisms to develop effective economic strategies for practical business problem-solving.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓	✓				✓
CO2 Explain & interpret	✓	✓		✓	✓			✓	✓
CO3 Apply Models	✓	✓	✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓	✓	
CO5 Research & create	✓	✓	✓	✓	✓			✓	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Business Economics: Definition, Nature, Scope – Functions and Responsibilities of a Business Economist – Law of Demand and its Exceptions – Elasticity of Demand – Market Demand Equation – Types of Elasticity of Demand and their Managerial Uses in Business – Demand Forecasting – Methods of Forecasting for Existing and New Product.

Tutorial 1: Demand Analysis Exercise Students will analyze demand patterns for selected products, calculate elasticity of demand, and interpret its business implications. The activity also introduces forecasting techniques used by organizations for demand estimation and decision-making.

Unit-II:**12 Hours [Lecture 9 Hours, Tutorial 3 Hours]**

Production Analysis & Firm Theory: Economic Theory of Firm – Theories of firm-Baumol's Model and Agency Theory – Production Function – Law of Variable Proportions & Iso-Quants & Iso Costs – Least Cost Factor Combination – Returns to Scale – Economies and Diseconomies of Scale. Introduction to First-Order and Second-Order Derivatives and their Applications in Business Decision Making

Tutorial 2: Production Function and Cost Analysis Activity: Students will analyze production functions and isoquants through graphical and numerical exercises to understand factor combinations and cost minimization. Students will apply first-order derivatives to identify optimum output levels and second-order derivatives to verify maximum and minimum points in business decision-making situations. The activity also helps in identifying economies and diseconomies of scale using real business examples.

Unit-III:**12 Hours [Lecture 9 Hours, Tutorial 3 Hours]**

Cost, Profit & Market Structures: Cost Concepts – Short-run and Long-run Cost Curves – , Demand and Supply: Market Equilibrium – Market Structures – Concept of Price – Pricing and Output Determination under Perfect Competition, Monopolistic Competition and Monopoly.

Tutorial 3: Students will examine different market structures through comparative case analysis and evaluate pricing strategies adopted by firms. The activity also focuses on interpreting cost and revenue curves for effective managerial decision-making.

Unit-IV:**12 Hours [Lecture 9 Hours, Tutorial 3 Hours]**

Indian Economic Environment: Overview of Indian Economy- Recent changes in Indian Economy-Macro Economic Aggregates and Concepts-National Income-GDP, GNP, NNP, WPI, CPI-Types of Inflation: Demand Pull and Cost Push Inflation, Phillips Curve, Stagflation-Measurement of Inflation- Economics of Risk & Finance-Monetary Policy and Fiscal Policy.

Tutorial 4: Indian Economy Review Activity: Students will analyze recent economic trends in India by interpreting key indicators such as GDP, CPI, and inflation. The activity also includes group discussions on monetary and fiscal policy measures and their impact on the economy.

Unit-V:**12 Hours [Lecture 9 Hours, Tutorial 3 Hours]**

Trade Cycles: Phases, Theories, and Corrective Measures – Behavioral and Technical Function: Aggregative Demand and Supply, Consumption Function, and Investment Function – Keynesian Theory (overview).

Tutorial 5: Business Cycle Analysis Activity: Students will identify different phases of business cycles using economic indicators and understand Keynesian concepts through simple economic situations. The activity also includes case-based analysis of recession and recovery measures adopted in economies.

Prescribed Texts:

1. Dean, J. (2005). *Managerial economics*. Prentice Hall of India.
2. Mote, V. L., & Paul, S. (2003). *Managerial economics: Concepts and cases*. Tata McGraw-Hill Education.
3. Gupta, G. S. (2011). *Managerial economics*. Tata McGraw-Hill Education.
4. Gupta, G. S. (2010). *Macro economics: Theory and applications*. Tata McGraw-Hill Education.

References:

1. Mehta, P. L. (2007). *Managerial economics: Text and cases*. S. Chand & Company Ltd.
2. Peterson, H. C., & Lewis, W. C. (2001). *Managerial economics*. Prentice Hall of India.
3. Salvatore, D. (2012). *Managerial economics in a global economy*. Pearson Education.

Suggested Certifications / Value Additions:

1. Alison – Managerial Economics: Cost Theory – Free online course covering cost theories and managerial economics concepts.
<https://alison.com/course/managerial-economics-cost-theory>
2. Alison – Managerial Economics: Economic Analysis and Optimization – Free course on economic analysis and optimization techniques.
<https://alison.com/course/managerial-economics-economic-analysis-and-optimization>
3. Managerial Economics, IIT Bombay
<https://nptel.ac.in/courses/110101005>
4. Economic Environment and Business Strategy, IIT Kanpur
<https://nptel.ac.in/courses/130104711>

Course Code : MCO 104 Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Accounting Standards-Ind-AS and IFRS
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

The purpose of this course is:

1. To develop analytical thinking in respect of Ind AS.
2. To focus on why part of the standards rather than the how part of revenue recognition, measurement, presentation of accounts as per Ind – AS.
3. To have an in-depth understanding in applying and interpreting the International Financial Reporting Standards (IFRS) to real world accounting problems.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. CO1: Evaluate the institutional framework, applicability of Ind AS in India, and conceptual shifts from traditional Indian GAAP to a principles-based globally converged financial reporting system.
2. CO2: Formulate and structure corporate financial statements in accordance with Ind AS requirements and reporting standards.
3. CO3: Evaluate group structures, leases, and financial instruments using advanced Ind AS standards and interpret multi-entity financial disclosures to assess the impact of accounting technology on corporate reporting.
4. CO4: Analyze the global regulatory environment and standard-setting processes of the IASB and apply IAS and IFRS criteria to measure and disclose multinational corporate transactions.
5. CO5: Evaluate multi-entity group structures, foreign currency variations, international financial statement analysis, and transfer pricing practices within the global IFRS framework for multinational operations.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Evaluate	✓	✓	–	✓	–	–	✓	✓	✓
CO2 Formulate	✓	✓	✓	✓	–	–	✓	✓	✓
CO3 Evaluate	✓	✓	✓	✓	–	–	–	–	✓
CO4 Analyse	✓	✓	–	✓	–	–	✓	✓	✓
CO5 Evaluate	✓	✓	✓	✓	–	✓	✓	–	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Introduction to Indian Accounting Standards: Overview of Accounting Standards – Objectives of Accounting Standards – Benefits and Limitations of Accounting Standards – Process of Formulation of Accounting Standards in India – List of Indian Accounting Standards (Ind AS) – Need for Convergence Towards Global Standards– International Financial Reporting Standards as Global Standards – Benefits of Convergence with IFRS – Applicability of Ind AS in India. Theoretical framework of Ind AS: Difference between Adoption of IFRS and Convergence of Indian Accounting Standards to the IFRS – Differences between Ind AS and Indian GAAP – Comparison with US GAAP – Substance over Form – Principles Vs. Rule based Accounting System – Descriptive Vs. Prescriptive Accounting System. Role of Institute of Chartered Accountancy, Ministry of Corporate Affairs,

Ministry of Finance (Taxation) in formulating the policy of Ind AS

Tutorial 1: Case Study on IFRS V/S IAS- Applicability

Tutorial 2: – Comparison with US GAAP- Seminar

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Presentation of Financial Statements: Objective of financial statements, Users of financial statements, Scope of the financial statements Underlying assumptions, Purpose of financial statements, the elements of financial statements, Recognition of the elements of financial statements, Measurement of the elements of financial statements, Disclosures to be made in the financial statements, Concepts of capital and capital maintenance, Interim financial reporting Ind AS 34 and Statement of Cash Flows Ind AS 7, Ind AS 8 Accounting policies, Changes in accounting estimates and errors, Ind AS 10 Events after the reporting period, Ind AS 113 Fair Value measurement.

Tutorial 3: Prepare and Analyze a Company's Financial Statements under Ind AS – Discussion.

Tutorial 4: Presentation on recognition of the elements of the financial statements – Presentation.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Contingent Liabilities and Contingent Assets and Consolidate Financial statements: Ind AS 37 Provisions, Contingent Liabilities and Contingent Assets, Ind AS on items impacting the Financial statements, Ind AS 12 Income taxes, Ind AS 21 The effects of changes in Foreign Exchange Rates, Disclosure of the Financial statements Ind AS 24 Related Party Disclosures, Ind AS 33 Earning Per Share, Accounting and Reporting of Financial Instruments- Classification and Measurement of Financial Assets and Financial Liabilities, Financial Instruments, Equity and Financial Liabilities, Derivatives and Embedded Derivatives, Ind AS 103 Business Combinations. Introduction to Consolidated and Separate Financial Statements, Consolidated Financial Statements Ind AS Consolidation Procedure for subsidiaries.

Tutorial 5: Provision or Contingent Liability- Case Study

Tutorial 6: Financial Statement Detective Game

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Introduction to International Accounting: Definition of International Accounting, An Overview of International Accounting Environment, Stages for the Evolution of a Multinational Corporation, Users of International Accounting information and their Information Needs. Structure of IFRS foundation and IASB, Standard setting process, IFR Standards issued till date, Differences between US GAAP and IFRS and their adoption. Presentation and Disclosure: IAS 10 - Events after the reporting period, IAS 20 - Accounting for government grants and Disclosure of government assistance, Accounting for Assets & Revenue, IAS 23 - Borrowing Costs, IAS 40 – Investment property, IAS 41 – Agriculture, IFRS 5 – Non- current assets held for sale and discontinued operations. Accounting for Liabilities & Financial Instruments, IAS 19 - Employee benefits, IFRS 2 – Share based payments.

Tutorial 7: IFRS vs US GAAP Comparison Challenge- Debate

Tutorial 8: International Company Case Study

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Special Issues in International Accounting: IFRS 10 - Consolidated Financial Statements, IAS 21 - Effects of the Changes in Foreign Exchange Rates, Transfer Pricing, International Financial Statement Analysis - Introduction, need for analysis, techniques of analysis, prospective analysis, factors affecting financial analysis.

Tutorial 9: Foreign Exchange Rate Conversion Activity

Tutorial 10: Currency Market Game

Prescribed Texts:

1. Banka, Anand. Comprehensive Guide to IND AS Implementation.
2. Choai F. D. S. and Mueller, G. G. International Accounting. Prentice hall.
3. Douppnik, T. S. and Perera, H. International Accounting. McGraw-Hill, New York.
4. Garg, Kamal. IFRS Concepts and Applications. Bharath Law House Private Limited
5. Ghosh, T.P. IFRS for Finance Executives. Taxman Allied Services Private Limited

References:

1. Gosain, Sariha and Gosain, Rajeeh, Practical Approach to IND AS Implementation, Illustrations, Summary & Comparisons.
2. Holzer, Peter H. et al. International Accounting, Harper and Row Publishers, New York.
3. IFRS explained – A Guide to International Financial Reporting Standards. BPP Learning Media.

Course Code : MCO 105 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Corporate Finance
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	-	1 (30 Hours)

Course Objectives:

1. To understand the concepts, scope, and objectives of financial management and Time Value of Money.
2. To analyze capital structure, cost of capital, and leverage decisions.
3. To evaluate investment proposals using capital budgeting techniques.
4. To understand working capital management and dividend decisions.
5. To familiarize students with corporate restructuring and corporate governance.
6. To develop practical skills using Microsoft Excel financial functions.

Course Outcomes (COs):

Upon completion of the course, students will be able to:

1. **CO1:** Understand the concepts and functions of financial management and apply Time Value of Money techniques.
2. **CO2:** Analyze capital structure, cost of capital, and leverage for financial decision-making.
3. **CO3:** Evaluate investment projects using capital budgeting techniques and risk analysis methods.
4. **CO4:** Assess working capital requirements and dividend policy decisions.
5. **CO5:** Explain corporate restructuring, mergers, acquisitions, and corporate governance concepts.
6. **CO6:** Apply Microsoft Excel financial functions for solving financial management problems.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	✓	–	–	–	–	–	–
CO2 Explain & interpret	✓	✓	✓	✓	–	–	–	–	✓
CO3 Apply Models	✓	✓	✓	✓	–	✓	–	–	✓
CO4 Analyse & evaluate	✓	✓	✓	✓	–	–	–	✓	✓
CO5 Research & create	✓	✓	–	✓	✓	–	✓	✓	✓
CO6 Apply Excel Functions	–	✓	✓	–	–	✓	✓	–	–

| Course Outline:

Unit-I: 14 Hours [Lecture: 8 Hours, Practical 6]

Introduction: Nature of Financial Management: Finance and related disciplines; Scope of Financial Management; Profit Maximization, Wealth Maximization - Traditional and Modern Approach; Agency Issues; Functions of finance – Finance Decision, Investment Decision, Dividend Decision; Objectives of Financial Management; Organisation of finance function; Concept of Time Value of Money - present value, future value, annuity, growing annuity, perpetuity, growing perpetuity

Lab 1: Excel Functions on Time Value of Money

Unit-II: 18 Hours [Lecture 10 Hours, Practical 8 Hours]

Capital Structure and Leverage: Capital Structure Theories: Net-Income, Net Operating Income, Traditional and Modigliani-Miller Approach, Trade-off Theory, Agency Theory, Pecking-Order Theory, Determinants of capital

structure. Measurement of Cost of Capital: Cost of Debt, Cost of Equity, Cost of Preference Shares, Cost of Retained Earnings, WACC. Leverage: Concepts and Nature of Leverages, Financial, Operating and Combined Leverage, Analyses of Alternative Financial Plan (EBIT-EPS Analysis)

Lab 2: Excel Functions on Capital Structure and Leverages

Unit-III:

18 Hours [Lecture 10 Hours, Practical 8 Hours]

Capital Budgeting Decisions: Objectives and Process of Capital Budgeting, Capital Rationing, Traditional and Discounted Cash Flow Techniques: Pay-Back Period, Accounting Rate of return, Net Present Value, Internal Rate of Return, Profitability Index Risk and Uncertainty Techniques of Capital Budgeting: Risk-Adjusted Discount Rate method, Certainty Equivalent, Sensitivity Analysis, Probability Distribution and Statistical Method, Break-Even Analysis, Scenario Analysis, Decision Tree Analysis

Lab 3: Excel Functions on Present Value (PV), Future Values (FV), Net Present Value (NPV), Profitability Index (PI), Internal Rate of Return (IRR), Modified Internal Rate of Return (MIRR), Extended Internal Rate of Return (XIRR), Interest Rate (RATE)

Unit-IV:

17 Hours [Lecture 9 Hours, Practical 8 Hours]

Working Capital and Dividend Decisions: Working Capital Management and Dividend Decision: Working Capital - Concept and Classification, Computation of Working Capital Cycle and Estimation of Working Capital Requirement. Working Capital policies related to Inventory, Receivables, Payables and Cash Management.

Dividend Decisions: Introduction to Dividend Decisions, Meaning & Definition, Forms of Dividend, Types of Dividend Policy, Significance of Dividend, Impact of Dividend Policy on Company, Factors affecting Dividend Policy

Lab 4: Excel Calculations on Working Capital

Unit-V:

8 Hours [Lecture 8 Hours]

Corporate Restructuring: Corporate Mergers and acquisitions and take-overs-Types of Mergers, motives for mergers, Principles of corporate governance.

Suggested Readings:

1. Financial management –V.K.Bhalla ,S.Chand
2. Financial Management, I.M. Pandey, Vikas Publishers.
3. Financial Management--Text and Problems, MY Khan and PK Jain, Tata McGraw- Hill
4. Berk J., Harford J. & Marzo P.D. (2019). Fundamentals of Corporate Finance (3rdEd.). Pearson Education

References:

1. Financial management –V.K.Bhalla ,S.Chand
2. Fundamentals of Financial Management, Chandra Bose D, PHI
3. Financial Management, I.M. Pandey, Vikas Publishers.
4. Financial Management--Text and Problems, MY Khan and PK Jain, Tata McGraw- Hill
5. Titman S., Keown A.J. & Martin J.D. (2019) Financial Management: Principles and Applications (13thEd.). Pearson Education.
6. Berk J., Harford J. & Marzo P.D. (2019). Fundamentals of Corporate Finance (3rdEd.). Pearson Education.
7. Periasamy P. (2017). Financial, Cost and Management Accounting (7thEd.). Himalaya Publishing House.
8. Ramanathan S. (2014). Accounting for Management (4thEd.). Oxford University Press.
9. Shah P. (2015). Management Accounting (2ndEd.). Oxford University Press.

Suggested Certifications / Value Additions:

- Alison offers free course on Corporate Finance. For more information click on the attached web link <https://alison.com/course/basics-of-corporate-finance>
- NISM Financial Literacy Course for Bharath, for more details use the give web link: <https://online.nism.ac.in/module/Financial%20Literacy%20Course%20for%20Bharat.html>
- Corporate Finance (NPTEL / SWAYAM) https://onlinecourses.nptel.ac.in/e-learning/preview/noc26_mg99
- Mergers, Acquisitions and Corporate Restructuring (NPTEL / SWAYAM) https://onlinecourses.nptel.ac.in/e-learning/preview/noc23_mg58

Course Code : MCO 106 Course Type : Core No. of Credits : 2.00 No. of Hours : 30	Course Title Business Communication - I
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Credit Distribution:

Lecture	Tutorial	Practical
1 (15 Hours)	1 (15 Hours)	-

Course Objectives:

1. To develop confidence in verbal, non-verbal, and interpersonal communication.
2. To improve speaking, listening, and presentation skills in academic and professional contexts.
3. To develop foundational professional writing skills.
4. To prepare students for professional identity building and workplace readiness.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Demonstrate confidence in verbal and non-verbal communication in personal and academic settings.
2. **CO2:** Apply interpersonal and group communication skills effectively in collaborative situations.
3. **CO3:** Deliver short presentations and public speaking activities with clarity and confidence.
4. **CO4:** Draft basic professional communication documents such as emails, notices, and reports.
5. **CO5:** Develop professional identity through resume preparation and digital profiling.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	✓	✓	✓				✓
CO2 Explain & interpret	✓	✓	✓	✓	✓	✓			✓
CO3 Apply Models	✓	✓	✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓			✓
CO5 Research & create	✓	✓	✓			✓	✓	✓	✓

Course Outline:

Unit-I: 6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Fundamentals of Communication and Self-Confidence: Basics of communication; verbal and non-verbal communication; barriers to communication; listening skills; confidence building; overcoming stage fear.

Tutorial 1: Service-style Professional Introduction Circle. Students progressively introduce themselves in formal and professional settings.

Tutorial 2: Active Listening Relay. Students practice listening accuracy through structured communication exercises.

Tutorial 3: Non-Verbal Communication Observation. Students analyze body language and communication cues in workplace situations.

Unit-II: 6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Interpersonal and Group Communication: Interpersonal communication; team communication; professional etiquette; group discussions; empathy and collaboration.

Tutorial 4: Structured Group Discussion on Workplace Topics. Students participate in moderated group

discussions on workplace-related topics to improve communication, teamwork, and analytical thinking skills.

Tutorial 5: Team Decision-Making Simulation Activity. Students engage in team-based problem-solving simulations to practice collaborative decision-making and leadership abilities.

Tutorial 6: Conflict Handling Role-Play in Group Situations. Students perform role-plays to learn effective conflict resolution and interpersonal communication strategies in group settings.

Unit-III:

6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Public Speaking and Presentation Skills: Public speaking; storytelling; persuasive speaking; presentation delivery; voice modulation.

Tutorial 7: Extempore Speaking Exercise. Students deliver short impromptu speeches on given topics to enhance confidence, fluency, and spontaneity in speaking.

Tutorial 8: Persuasive Storytelling Activity. Students present engaging stories with persuasive elements to develop creativity, emotional appeal, and presentation skills.

Tutorial 9: Three-Minute Professional Presentation. Students prepare and deliver a concise professional presentation to strengthen public speaking and presentation delivery techniques.

Unit-IV:

6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Professional and Business Writing: Email writing; notices and circulars; meeting summaries; professional communication etiquette.

Tutorial 10: Professional Email Drafting Workshop. Students draft formal professional emails to practice workplace communication etiquette and writing skills.

Tutorial 11: Business Writing Correction and Editing Activity. Students identify and correct errors in professional documents to improve clarity, accuracy, and business writing standards.

Tutorial 12: Meeting Summary and Event Report Preparation. Students prepare meeting summaries and event reports to develop professional documentation and reporting skills.

Unit-V:

6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Personal Branding and Career Readiness: Resume preparation; LinkedIn basics; digital professionalism; networking communication.

Tutorial 13: Resume Building Lab. Students create and refine professional resumes highlighting their academic achievements, skills, and career goals.

Tutorial 14: LinkedIn Profile Optimization Activity. Students develop and improve their LinkedIn profiles to enhance digital professionalism and networking presence.

Tutorial 15: Professional Portfolio Presentation. Students present their professional portfolios showcasing their skills, achievements, and career readiness.

Prescribed Texts:

1. Bovee, C. L., & Thill, J. V. (2021). *Business communication today* (15th ed.). Pearson Education.
2. Locker, K. O., & Kaczmarek, S. K. (2019). *Business communication: Building critical skills* (7th ed.). McGraw Hill Education.
3. Lesikar, R. V., Flatley, M. E., Rentz, K., & Pande, N. (2020). *Business communication: Connecting in a digital world* (13th ed.). McGraw Hill Education.

References:

1. Chaturvedi, P. D., & Chaturvedi, M. (2017). *Business communication: Concepts, cases and applications* (3rd ed.). Pearson Education.
2. Lucas, S. E. (2020). *The art of public speaking* (13th ed.). McGraw Hill Education.
3. Murphy, H. A., Hildebrandt, H. W., & Thomas, J. P. (1997). *Effective business communication* (7th ed.). McGraw Hill Education.
4. Quintanilla, K. M., & Wahl, S. T. (2018). *Business and professional communication: Keys for workplace excellence* (3rd ed.). Sage Publications.
5. Raman, M., & Singh, P. (2012). *Business communication* (2nd ed.). Oxford University Press.

Suggested Certifications / Value Additions:

1. <https://alison.com/course/introduction-to-business-communication>
2. <https://alison.com/course/group-communication-teamwork-and-leadership>
3. <https://alison.com/course/effective-business-writing-and-presentations>
4. https://rfskillingacademy.com/en/skill_development/e-course/RF_292_en/Communication-Skills
5. https://onlinecourses.swayam2.ac.in/e-learning/preview/imb26_mg228
6. https://onlinecourses.swayam2.ac.in/e-learning/preview/imb26_mg202

SEMESTER-II

Course Code : MCO 201 Course Type : Core No. of Credits : 4 No. of Hours : 60	Course Title Financial Markets and Institutions
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	-

Course Objectives:

The purpose of this course is:

1. To provide comprehensive knowledge of financial markets, financial instruments, and financial institutions operating in India and globally.
2. To develop understanding of the structure and functions of capital markets, money markets, and financial intermediaries.
3. To familiarize students with modern developments in banking, insurance, mutual funds, derivatives, and digital financial systems.

Course Outcomes (COs):

Upon the completion of this course, the students should be able to:

1. **CO1:** Understand the structure and functions of financial markets and institutions.
2. **CO2:** Analyze the role of RBI, SEBI, stock exchanges, and other regulatory bodies in financial market development.
3. **CO3:** Evaluate different financial instruments such as shares, debentures, bonds, derivatives, and mutual funds.
4. **CO4:** Examine banking and insurance sector operations and their contribution to economic growth.
5. **CO5:** Apply knowledge of digital finance, online trading platforms, and emerging financial technologies.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1: Recall & define	✓	✓	-	✓	-	-	-	✓	✓
CO2: Explain & interpret	✓	✓	-	✓	-	✓	-	-	✓
CO3: Apply Models	✓	-	✓	✓	✓	✓	✓	-	✓
CO4: Analyse & evaluate	✓	✓	✓	✓	-	✓	✓	✓	-
CO5: Research & create	✓	✓	✓	-	✓	✓	-	✓	✓

Course Outline:

Unit-I: **12 Hours [Lecture 9 Hours, Tutorial 3 Hours]**

Introduction to Financial Markets and Institutions: Meaning, nature, scope, and importance of financial markets; Structure of Indian financial system; Classification of financial markets – Money Market and Capital Market; Organized and unorganized financial markets; Financial institutions – banking and non-banking institutions; Role of financial markets in economic development; Financial instruments and financial assets;

Participants in financial markets. Money Market: Features, objectives, and functions; Call money market, treasury bills market, commercial paper, certificates of deposit, repo and reverse repo markets. Capital Market: Primary market and secondary market; Stock exchanges and their functions; Listing of securities; Role of intermediaries in capital market.

Tutorial 1: Financial Market Mapping Activity – Students prepare a chart showing the structure of the Indian financial system and relationships among financial institutions.

Tutorial 2: Case Study on RBI and SEBI – Analyze the role of RBI and SEBI in regulating financial markets during economic events.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Institutions and Banking System: Commercial Banks: Functions, structure, and role in economic development; Public sector, private sector, foreign, regional rural, and cooperative banks. Reserve Bank of India (RBI): Functions, monetary policy, credit control measures, and supervision of banking institutions. Development Financial Institutions: IFCI, IDBI, NABARD, SIDBI, EXIM Bank, NHB. Non-Banking Financial Companies (NBFCs): Meaning, functions, and regulatory framework. Insurance Institutions: LIC, GIC, IRDAI and insurance market reforms. Digital Banking: Internet banking, mobile banking, UPI, digital wallets, fintech innovations, and digital payment systems.

Tutorial 1: Digital Payment Practice – Demonstrate UPI transactions, mobile banking, internet banking, and digital wallet usage in a controlled environment.

Tutorial 2: RBI Report Analysis – Analyze RBI annual reports or monetary policy statements and present key findings.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Stock Market and Investment Institutions: **Stock Market:** Meaning, features, and importance; Bombay Stock Exchange (BSE) and National Stock Exchange (NSE); Trading mechanism and settlement process; Stock market indices. Mutual Funds: Meaning, objectives, types, advantages, and limitations; Mutual fund operations and NAV calculation. Credit Rating Agencies: Meaning and role; CRISIL, ICRA, CARE. Depository System: NSDL and CDSL; Dematerialization and rematerialization process. Foreign Institutional Investors (FIIs) and Foreign Direct Investment (FDI). Investor Protection Measures: Role of SEBI, investor grievance redressal mechanism.

Tutorial 1: Stock Market Index Analysis – Track BSE Sensex and NSE Nifty movements and interpret market trends.

Tutorial 2: Demat Account Process Study – Observe and document the process of dematerialization and online trading.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Derivatives and International Financial Markets: Derivatives Market: Meaning, features, participants, and functions; Futures, options, forwards, and swaps. Commodity Market and Commodity Exchanges. Risk Management in Financial Markets: Market risk, credit risk, operational risk, liquidity risk, and interest rate risk. International Financial Markets: Foreign exchange market, Euro currency market, international bond market, and global financial institutions. International Financial Institutions: IMF, World Bank, Asian Development Bank. Financial Crises and Global Financial Reforms. Emerging Trends: Green finance, sustainable finance, fintech innovations, blockchain technology, and cryptocurrency concepts.

Tutorial 1: Risk Analysis Exercise – Identify and analyze market risk, credit risk, and liquidity risk in selected companies or financial products.

Tutorial 2: Case Study on Financial Crises – Analyze causes and impacts of global financial crises and reforms.

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Regulatory Framework and Contemporary Issues: Regulatory Framework: Role and functions of SEBI, RBI, IRDAI, and Ministry of Finance. Legal Aspects of Financial Markets: SEBI Act, Banking Regulation Act, Companies Act provisions relating to securities market. Ethical Issues in Financial Markets: Insider trading, market manipulation, financial frauds, corporate governance, and investor ethics. Financial Inclusion and Digital Finance in India. Cyber Security and Data Protection in Digital Financial Systems.

Case Studies: UPI, Paytm, SBI YONO, Zerodha, NSE, and recent financial market reforms.

Tutorial 1: Ethical Issues Debate – Conduct debates on insider trading, market manipulation, and corporate governance failures.

Tutorial 2: Case Study on Digital Finance Platforms – Study business models and financial innovations of UPI, Paytm, SBI YONO, and Zerodha.

Tutorial 3: Financial Inclusion Survey – Conduct a small survey on digital finance usage and financial inclusion in local communities.

Prescribed Texts:

1. Bhole, L.M. and Mahakud, Jitendra. *Financial Institutions and Markets*. McGraw Hill Education.
2. Khan, M.Y. *Indian Financial System*. McGraw Hill Education.
3. Pathak, Bharati V. *The Indian Financial System*. Pearson Education.
4. Gordon, E. and Natarajan, K. *Financial Markets and Services*. Himalaya Publishing House.
5. Fabozzi, Frank J. *Foundations of Financial Markets and Institutions*. Pearson Education.

References:

1. Machiraju, H.R. *Indian Financial System*. Vikas Publishing House.
2. Saunders, Anthony and Cornett, Marcia. *Financial Institutions Management*. McGraw Hill.
3. Mishkin, Frederic S. *The Economics of Money, Banking and Financial Markets*. Pearson.
4. RBI Annual Reports and Monetary Policy Reports.
5. SEBI Publications and Investor Awareness Materials.
6. NSE and BSE official publications.

Suggested Certifications / Value Additions:

1. Business Finance and Financial Markets (Alison): <https://alison.com/course/business-finance-and-financial-markets>
2. Managing My Investments (OpenLearn / The Open University): <https://www.open.edu/openlearn/money-business/managing-my-investments>
3. Introduction to Financial Derivatives (SWAYAM): https://onlinecourses.swayam2.ac.in/imb26_mg148/preview

Course Code : MCO 202 Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title FINANCIAL ANALYSIS AND REPORTING
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

The purpose of this course is:

1. To enable the student to understand the structure, contents, compliance and recent developments in corporate reporting.
2. To make the student understand the basic aspects of firm's financial statements and to develop them. Measure their performance and to establish basis for making reasonable valuation estimates

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Apply ethical and professional principles in accounting and evaluate the implications of unethical financial practices.
2. **CO2:** Examine financial reporting frameworks, accounting regulations, and reporting practices of companies, banks, NBFCs, and financial intermediaries.
3. **CO3:** Analyze sustainability reporting practices and assess the role of XBRL in modern financial reporting.
4. **CO4:** Evaluate the relationship between strategic business analysis, accounting analysis, and financial analysis to interpret managerial reporting motives.
5. **CO5:** Interpret value-relevant financial statement information to forecast and assess future organizational performance.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define		✓		✓			✓	✓	
CO2 Explain & interpret	✓	✓		✓			✓	✓	✓
CO3 Apply Models	✓	✓	✓	✓		✓			✓
CO4 Analyse & evaluate	✓	✓	✓	✓	✓	✓	✓	✓	
CO5 Research & create	✓	✓	✓	✓	✓	✓		✓	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Preparation and Presentation of Financial Statements of Companies in Compliance with Regulatory Requirements: Preparation and presentation of financial statements for single companies, not for profit and public sector entities, Criteria for information appearing in a published income statement and balance sheet, Income statement, Balance sheet, Statement of 60 changes in equity, Reporting comprehensive income, Segmental reporting, Accounting policies, Fair view treatment, Chairman's statement and directors' report, Management Discussion and Analysis, Notes to the accounts, Cash flow statements, Preparation of published accounts complying with accounting standards. Fundamental Ethical and Professional Principles: Professional behavior and compliance with accounting standards, Ethical requirements of corporate reporting and the consequences of unethical behavior.

Tutorial 1: Study of preparation and presentation of financial statements, income statement, balance sheet, cash

flow statement, segment reporting, accounting policies, management discussion and analysis, ethical principles in financial reporting, and compliance with accounting standards.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Trends in Financial Reporting: Integrated reporting, Principles, Integrated reporting by listed companies; SEB/ regulations (LODR) (Listing obligations and Disclosure requirements) sustainability reporting – concept, forms, benefits, Global reporting initiative (GRI). Triple bottom line reporting (TBL) – concept, benefits, implementation, forms, users, financial reporting vis-à-vis Triple bottom line reporting, Challenges. Corporate Social Responsibility Meaning, importance, requirements and users of CSR Report, benefits, reading of CSR Report, Evaluation of CSR reports, innovation in CSR Reporting (Case Studies). CSR reporting in Indian context, CSR guidelines issued by ICAI, Value Added Statement, Human Resource Reporting (Case Studies), corporate environment accounting and audit, Accounting for carbon credit. Extensible Business Reporting Language (XBRL): Introduction to XBRL, Need for XBRL Adoption, Technical terms used in XBRL, Regulatory framework of XBRL in India, Benefits and Myths of XBRL, Role of preparers of Financial Statements.

Tutorial 2: Practical understanding of integrated reporting, sustainability reporting, triple bottom line reporting, CSR reporting, XBRL framework, carbon accounting, and analysis of CSR reports through case studies and reporting exercises.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Reporting for Financial Institutions: Financial reporting for financial institutions, Qualities of Financial Reporting in Banking, RBI Guideline of Financial Reporting, RBI Prudential Norms. Financial Reporting by mutual funds, non-banking finance companies, Merchant Bankers, Stock, and commodity market intermediaries.

Tutorial 3: Study of financial reporting practices in banks, mutual funds, NBFCs, merchant bankers, and market intermediaries; RBI prudential norms and reporting requirements for financial institutions.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Analysis: Finance and accounting – meaning –Types of companies – elements of financial statement analysis – on the basis of materials used – on the basis of modus operandi – General Comparison between financial and non-financial listed companies’ performance through annual report as a bench marking against competitor and industry. Ratio Analysis: Meaning, Use and Significance of Ratio Analysis – Limitations of Ratio Analysis Classification of Ratio Analysis – Computation of Liquidity, Activity, Solvency and Profitability Ratios – Du-Pont Control Chart Credit and Equity Risk Analysis: Meaning, Purpose of Credit Risk Analysis, Drivers that Quantify Credit Risk, Types of credit Risk; 61 concept of credit rating, models for prediction of Bond rating and Bond risk premium. Types of equity risk, Techniques and process of equity risk analysis using financial information. Distress Analysis: Meaning of financial distress and corporate failure; causes and symptoms of failure; models for prediction of corporate failure.

Tutorial 4: Practical exercises on ratio analysis, liquidity and profitability analysis, DuPont analysis, credit and equity risk analysis, distress analysis, and interpretation of financial statements using company annual reports and case studies.

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Valuation of Firm & Forecasting Analysis: Cash based and Earnings based, Valuation models, growth and sustainability of earnings. Simple forecasting and simple Valuation, full information forecasting and Valuation, Business strategy analysis. Financial Measures of Performance: Introduction – Return on Investment (ROI): Concept – Uses and Limitations – Value Added Statement - Market Value Added (MVA), Economic Value Added (EVA): Concept and Significance of EVA, Measurement of EVA, and Shareholder Value Added. Balanced Score Card (BSC): Introduction, drawback of traditional financial measures, attributes to good performance measurement system, concept of balanced score card, perspectives of BSC and implementation of balanced score card, case studies on BSC. Note: Financial statement analysis including the ‘Ratio analysis’ and ‘Cash flow Analysis’ shall be explained as a case study using Financial Statements of some company.

Tutorial 5: Study of valuation models, forecasting techniques, ROI, EVA, MVA, balanced scorecard, shareholder value analysis, and performance measurement systems through financial statement case studies.

Prescribed Texts:

1. Gupta, Ambrish. *Financial Accounting for Management: An Analytical Perspective*. Pearson Education.
2. Elliott, Barry & Elliott, Jamie. *Financial Accounting and Reporting*. Pearson Education.
3. Raman, B.S. *Financial Statement Analysis and Reporting*. United Publishers.
4. Narayanaswamy, R. *Financial Accounting: A Managerial Perspective*. PHI Learning.
5. White, Gerald I., Sondhi, Ashwinpaul C., & Fried, Dov. *The Analysis and Use of Financial Statements*. Wiley India.

References:

1. Gosain Sariha, and Gosain, Rajesh. Practical Approach to IND AS Implementation, Illustrations, Summary & Comparisons.
2. Helfert, Erich A. Techniques of Financial Analysis. Tata McGraw Hill.
3. Kirk, Robert J. IFRS: A Quick Reference Guide. Elsevier Ltd.
4. Kumar, Praveen. Consolidation under IND AS- IFRS Converged Standard.
5. Khan M. Y. and Jain, P.K. Advanced Financial Management. Tata McGraw Hill, New Delhi.
6. Pandey, I. M. Advanced Financial Management. Vikas Publishing home Pvt Ltd, New Delhi.

Suggested Certifications / Value Additions:

1. NPTEL – Financial Accounting and Analysis Certification: <https://nptel.ac.in/courses>
2. SWAYAM – Financial Management and Accounting Courses @ <https://swayam.gov.in>
3. NPTEL – Financial Statements Analysis and Reporting: <https://nptel.ac.in/courses/110107073>
4. SWAYAM – From Theory to Practice: Implementing ESG and Sustainability in Business
https://onlinecourses.swayam2.ac.in/e-learning/preview/imb26_mg171

Course Code : MCO 203 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Data Visualization
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Credit Distribution:

Lecture	Tutorial	Practical
2 (30 Hours)	1 (15 Hours)	1 (30 Hours)

Course Objectives:

1. To introduce the fundamental concepts, principles, and significance of data visualization in business and research contexts.
2. To develop understanding of visual perception, visual mapping, and analytical techniques for effective data communication.
3. To enable students to apply visualization tools and techniques for creating interactive charts, dashboards, and analytical reports.
4. To enhance students' ability to analyze multidimensional, hierarchical, textual, and network data using visualization systems and tools.
5. To develop competency in evaluating, interpreting, and designing effective visual analytics solutions for managerial decision-making.

Course Outcomes (COs):

After successful completion of the course, students will be able to:

1. **CO1:** Understanding the concepts, principles, and importance of data visualization, visual analytics, and human cognitive perception in data interpretation.
2. **CO2:** Apply visualization techniques and software tools such as Tableau, Power BI, and spreadsheet applications to create charts, dashboards, and interactive visual reports.
3. **CO3:** Analyze business and research datasets using visual mapping, multidimensional visualization, text visualization, and network visualization techniques.
4. **CO4:** Evaluate the effectiveness, usability, ethical considerations, and validation methods of different visualization systems and analytical reports.
5. **CO5:** Design and Develop interactive dashboards and end-to-end visual analytics projects to support strategic and managerial decision-making.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓					✓
CO2 Explain & interpret		✓	✓	✓	✓		✓		✓
CO3 Apply Models	✓	✓		✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓		✓	✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Fundamentals of Data Visualization: Introduction to Data Visualization – Importance and value of visualization – Human visual perception and cognition – Principles of visual representation of data – Gestalt principles in visualization – Information overload and cognitive limitations – External representation and interactivity – Challenges in visualization validation – Data abstraction: dataset types, attribute types, and semantics.

Tutorial 1: Discussion and analysis of effective and ineffective visualizations used in business and research applications

Lab 1: Create basic charts and graphs using spreadsheet tools for different types of datasets.

Lab 2: Develop visual representations for categorical and numerical datasets using visualization software.

Unit-II: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Visual Representation and Analytics: Creating effective visual representations – Visual reference model – Visual mapping techniques – Introduction to visual analytics – Design principles for visualization applications – Task abstraction: Analyze, Produce, Search, and Query – Validation levels in visualization – Validation approaches and evaluation methods.

Tutorial 2: Exercises on selecting suitable visual mapping techniques and discussion on visual analytics applications.

Lab 3: Design visual representations and dashboards using Tableau/Power BI

Lab 4 : Develop interactive visual analytics reports for business datasets

Unit-III: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Visualization Systems and Techniques: Classification of visualization systems – Interaction and visualization techniques – Misleading visualizations and ethical issues – Visualization of one-dimensional, two-dimensional, and multidimensional data – Visualization of text and text documents – Data structures used in data visualization.

Tutorial 3: Analysis of misleading visualizations and discussion on ethical issues in data visualization

Lab 5: Create multidimensional visualizations using data visualization tools.

Lab 6: Perform text visualization using word clouds and text analytics techniques

Unit-IV: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Advanced Visualization and Dashboards: Visualization of groups and hierarchical data – Tree and graph visualization – Cluster and network visualization – Software tools for data visualization – Metaphorical visualization techniques – Dashboard design and reporting – Creating dashboards for strategic decision-making – Interpreting dashboards and visual reports.

Tutorial 4: Discussion on dashboard design principles and interpretation of business dashboards.

Lab 7: Design business dashboards using Tableau/Power BI for decision-making applications.

Lab 8: Develop network and cluster visualizations using open-source visualization tools.

Unit-V: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Evaluation and Emerging Applications of Visualization: Evaluating visualizations: methods and metrics – Arrangement and layout of networks and trees – Usability and effectiveness of visualizations – Interactive and dynamic visualizations – Case studies in data visualization applications – Future trends in data visualization and visual analytics.

Tutorial 5: Evaluation and discussion of visualization case studies and emerging visualization trends.

Lab 9: Compare and evaluate visualization tools based on usability and effectiveness.

Lab 10: Develop an end-to-end data visualization project and prepare a visual analytics report.

Prescribed Texts:

1. Tufte, E. R. (2001). *The visual display of quantitative information* (2nd ed.). Graphics Press. ISBN: 9780961392147.
2. Knaflic, C. N. (2015). *Storytelling with data: A data visualization guide for business professionals*.

Wiley Publications. ISBN: 9781119002253.

3. Ware, C. (2021). *Information visualization: Perception for design* (4th ed.). Morgan Kaufmann Publishers. ISBN: 9780128128756.
4. Wilke, C. O. (2019). *Fundamentals of data visualization: A primer on making informative and compelling figures*. O'Reilly Media. ISBN: 9781492031086.

References:

1. Munzner, T. (2014). *Visualization analysis and design*. CRC Press. ISBN: 9781466508910.
2. Few, S. (2013). *Information dashboard design: Displaying data for at-a-glance monitoring* (2nd ed.). Analytics Press. ISBN: 9781938377006.
3. Cairo, A. (2012). *The functional art: An introduction to information graphics and visualization*. New Riders Publishing. ISBN: 9780321834737.
4. Provost, F., & Fawcett, T. (2013). *Data science for business: What you need to know about data mining and data-analytic thinking*. O'Reilly Media. ISBN: 9781449361327.

Suggested Certifications / Value Additions:

1. Data Analytics and Visualization with MS Power BI (SWAYAM): https://onlinecourses.swayam2.ac.in/imb25_mg218/preview
2. Introduction to Statistics (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc25_ma36/preview
3. Learn to Code for Data Analysis (OpenLearn / The Open University): <https://www.open.edu/openlearn/science-maths-technology/learn-code-data-analysis>
4. Introduction to Data Visualization (Alison): <https://alison.com/course/introduction-to-data-visualization>
5. Designing Effective Dashboards in Microsoft Excel (Alison): <https://alison.com/course/designing-effective-dashboards-in-microsoft-excel>

Course Code : MCO 204 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Strategic Cost Management
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Credit Distribution:

Lecture	Tutorial	Practical
2 (30 Hours)	1 (15 Hours)	1 (30 Hours)

Course Objectives:

1. Explain strategic cost management concepts, techniques, and contemporary cost management practices used for managerial decision-making.
2. Apply cost analysis, pricing, budgeting, and performance measurement tools for strategic business decisions.
3. Analyze and evaluate business performance using strategic cost management techniques, case studies, and software-based financial applications.

Course Outcomes (COs):

After successful completion of the course, students will be able to:

1. **CO1:** Explain the concepts, objectives, and strategic importance of cost management in business organizations.
2. **CO2:** Apply modern costing techniques and strategic tools for cost control and managerial decision-making.
3. **CO3:** Analyze cost behavior, profitability, and performance using strategic cost analysis techniques.
4. **CO4:** Evaluate business strategies using budgeting, pricing, benchmarking, and performance measurement systems.
5. **CO5:** Develop analytical and decision-making skills through case studies, spreadsheet applications, and cost management software tools.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓		✓			✓
CO2 Explain & interpret	✓	✓		✓		✓			✓
CO3 Apply Models	✓		✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓		✓
CO5 Research & create	✓		✓	✓	✓	✓	✓		✓

Course Outline:

Unit-I: 15 Hours [Lecture 6 Hours, Tutorial Hours 3, Lab 6 Hours]

Introduction to Strategic Cost Management: Meaning and scope of strategic cost management, objectives and importance of strategic cost management, role of cost management in strategic decision-making, cost concepts and

classifications, cost drivers, value chain analysis, strategic positioning analysis, cost reduction and cost control techniques, contemporary issues in cost management, strategic role of finance managers in cost control.

Activity Session (Tutorial) : Case analysis on cost leadership strategy, discussion on value chain analysis of manufacturing and service organizations, activity-based discussion on cost drivers and strategic positioning.

Lab 1: Preparation of cost classification statements using spreadsheets, value chain mapping exercises.

Lab 2: Computation of cost drivers using Excel/Tally, practical exercises on cost data analysis.

Unit-II: 16 Hours [Lecture 7 Hours, Tutorial 3 Hours, Lab 6 Hours]

Activity-Based Costing and Cost Management Techniques: Traditional costing versus activity-based costing (ABC), activity-based management (ABM), target costing, life cycle costing, Kaizen costing, quality costing, Just-in-Time (JIT) costing, total quality management (TQM), throughput accounting, lean accounting, strategic implications of modern costing techniques.

Activity Session (Tutorial): Case studies on implementation of ABC in organizations, target costing exercises, discussions on lean accounting and quality costing practices.

Lab 1: Preparation of ABC models using spreadsheets, allocation of overheads through activity cost pools.

Lab 2: Computation of target cost and lifecycle cost analysis using Excel.

Unit-III: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Lab 6 Hours]

Strategic Profitability and Decision Analysis: Cost-volume-profit analysis, contribution analysis, break-even analysis, profit planning, relevant costing, differential costing, marginal costing, make-or-buy decisions, shutdown decisions, pricing decisions, customer profitability analysis, strategic profitability analysis.

Activity Session (Tutorial) : Case discussions on pricing and profitability decisions, problem-solving sessions on marginal costing and relevant costing decisions, analysis of strategic business scenarios.

Lab 1: Preparation of CVP and break-even charts using spreadsheets, profitability analysis models.

Lab 2 : Pricing decision simulations using Excel tools.

Unit-IV: 14 Hours [Lecture 5 Hours, Tutorial 3 Hours, Lab 6 Hours]

Budgeting and Performance Measurement: Strategic budgeting, fixed and flexible budgets, zero-based budgeting, performance budgeting, standard costing, variance analysis, responsibility accounting, transfer pricing, divisional performance evaluation, balanced scorecard, benchmarking, strategic performance measurement systems.

Activity Session (Tutorial): Case studies on budgeting and performance evaluation systems, analysis of balanced scorecard implementation, exercises on benchmarking practices.

Lab 1: Preparation of budgets and variance analysis statements using spreadsheets.

Lab 2 : Balanced scorecard templates, performance dashboard preparation using Excel/Tally.

Unit-V: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Lab 6 Hours]

Strategic Cost Management Applications and Emerging Trends: Strategic cost management in manufacturing and service sectors, cost management for sustainability, environmental costing, carbon costing, strategic cost management in global business, ERP and digital cost management systems, business analytics in cost management, emerging trends in strategic finance and cost control.

Activity Session (Tutorial): Case studies on sustainability costing and global cost management practices, discussion on ERP-enabled cost management systems, analysis of real-world strategic finance practices.

Lab 1: Introduction to ERP/Tally applications in cost management, sustainability cost analysis using spreadsheets.

Lab 2: Preparation of integrated cost reports and dashboards, mini project on strategic cost analysis of a business organization.

Prescribed Texts:

1. Horngren, C. T., Datar, S. M., & Rajan, M. V. (n.d.). *Cost accounting: A managerial emphasis* (15th ed.). Prentice Hall.
2. Kishore, R. M. (n.d.). *Cost management*. Taxmann Allied Services Pvt. Ltd.
3. Lal, J., & Srivastava, S. (n.d.). *Cost accounting* (5th ed.). Tata McGraw-Hill.
4. Mukherjee, S., & Roychowdhury, A. P. (n.d.). *Advanced cost and management accountancy*. New Central Book Agency.

5. Saxena, V. K., & Vashist, C. D. (n.d.). *Cost and management accounting*. Taxmann.
6. Singh, S. (n.d.). *Strategic cost management*. Sultan Chand & Sons.

References:

1. Brown, & Haward. (n.d.). *Principles of management accountancy*. MacDonald & Evans.
2. Paul, S. K. R. (n.d.). *Management accounting*. New Central Book Agency Private Ltd.
3. Shank, J. K. (n.d.). *Cases in cost management: A strategic emphasis*. South-Western Publishing, Thomson Learning.

Suggested Certifications / Value Additions:

1. Management Accounting
<https://nptel.ac.in/courses/110107127>
2. Cost Accounting
<https://nptel.ac.in/courses/110101132>

Course Code: MCO 205 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Corporate Tax Planning
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	--	1 (30 Hours)

Course Objectives:

1. To expose the students to the latest provisions of Income Tax Act providing scope for tax planning for companies.
2. To develop the knowledge of students for identify the appropriate provisions and methods of Tax Planning for Companies.
3. To equip the students for identifying and suggesting the tax planning under alternative conditions regarding form of business, nature of business, etc.
4. To develop the knowledge of students regarding scope of tax planning under foreign collaboration, mergers, acquisitions, demergers, etc.

Course Outcomes:

By the end of the course students should be able to:

1. **CO 1:** Understand the latest provisions of Income Tax Act providing scope for tax planning for companies.
2. **CO 2:** Identify the appropriate provisions and methods of Tax Planning for Companies.
3. **CO 3:** Identifying and suggest the tax planning under alternative conditions regarding form of business, nature of business, etc.
4. **CO 4:** Determine the scope of tax planning under foreign collaboration, mergers, acquisitions, demergers, etc.
5. **CO5:** This course develops the expertise to integrate tax planning parameters into corporate managerial decisions, including restructuring, lease-versus-purchase options, and asset acquisition. Graduates will be capable of assessing the tax impacts of dividend policies and corporate compensation

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Understand & Examine	✓	✓	–	–	–	–	–	–	✓
CO2 Identify & Apply	✓	✓	✓	✓	–	–	–	–	✓
CO3 Identify & Suggest	✓	✓	✓	✓	✓	–	✓	–	✓
CO4 Determine & Analyze	✓	✓	✓	✓	✓	✓	✓	–	✓
CO5 Integrate & Develop	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Introduction to Tax Planning: Tax Avoidance, Tax Evasion: Concepts and Objectives; Factors & Methods; Tax Planning and Corporate Planning Different types of Company. Taxation of Companies (Residential status, Tax liability, MAT provision)-Residential status and Incidence of Tax for Corporate Assesses, Taxation of Company- Computation of tax liability, MAT-Provision; MAT Credit. 119 .

Lab 1. Residential Status of Companies – Case Study Analysis

Lab 2. Computation of Corporate Tax Liability

Unit-II: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Assessment of Companies: Definitions- Taxable Income and Tax Liability- How Computed Minimum Alternative Tax- Tax on distributed profits of domestic companies- tax on income distributed to unit holders- Tax on income received from venture capital companies and venture capital fund- Problems on Computation of Taxable Income of Corporate Assesses - Tax Planning and Management Decisions- Tax Planning with reference to Financing and Investment Decisions - Make or Buy Own or Lease-Repair or Replace- Employee Remuneration- Setting up of New Business Location Aspect- Amalgamation or Demerger.

Lab 3: Corporate Tax Computation

Lab 4: MAT & Profit Distributes Profit Tax Analysis

Unit-III: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Tax Planning-Forms of Business: Tax Planning for Sole proprietorship, Partnership and LLP. Tax Planning- Nature of business I-(Sec. 32AD, 33AB, 3ABA); II (Sec. 35ABB, 35AD); III (Sec. 80-IA, 80-IAC, 80-IB, 80-IBA, 80-ID, 80-IE, 80JJA) Tax Planning-Location of business.

Lab 5: Tax Incentive Calculation

Lab 6: Location-Based Tax Planning Model.

Unit-IV: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Tax Planning-Foreign Collaboration: Business Restructuring- Merger, Demerger including Slump sale. Double Taxation Relief - Meaning- Double Taxation Relief Applicable to Individuals, Firms and Corporate- Double Taxation Relief. Taxation Avoidance- General Anti Avoidance Rules (GAAR).

Lab 7: India tax vs foreign tax

Lab 8: Net tax burden calculation.

Unit-V: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Tax Planning-Managerial Decision: Make or buy; Scientific Research; Business Restructuring-Amalgamation; Capital structure & dividend policy Dividend Tax Types of dividends, Dividend Tax planning- Employees'

Lab 9: Amalgamation Tax Impact Sheet

Lab 10: Capital Structure and Tax Shield Model

Prescribed Texts:

1. Bhagavath Prasad. Direct Tax Law and Practice.
2. Kushal Kumar Agrawal. Direct Tax Planning and Management; Atlantic Publishers.
3. Lakhotia R N. Corporate Tax Planning.
4. Mehrotra H C. Direct Tax Planning.

References:

1. Singhanian, V. K: Direct Tax Planning and Management, Taxman, New Delhi.
2. Singhanian V. K. Direct Taxes Laws and Practices, Taxman, New Delhi.
3. Srinivas E. A. Corporate Tax Planning: Corporate Tax Planning; Tata Mc – Graw Hill

Suggested Certifications / Value Additions:

1. https://onlinecourses.swayam2.ac.in/e-learning/preview/ugc19_hs24 - Offered by Swayam

Course Code : MCO 206 Course Type : Core No. of Credits : 2.00 No. of Hours : 30	Course Title Business Communication – II
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Credit Distribution:

Lecture	Tutorial	Practical
1 (15 Hours)	1 (15 Hours)	-

Course Objectives:

1. To develop workplace communication and professional interaction skills.
2. To strengthen persuasive and professional writing abilities.
3. To enhance leadership communication, presentation, and interview skills.
4. To prepare students for employability and organizational communication.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Demonstrate professional workplace communication and team interaction skills.
2. **CO2:** Prepare advanced business communication documents including proposals and reports.
3. **CO3:** Deliver professional presentations, pitches, and persuasive communication effectively.
4. **CO4:** Exhibit employability skills through interview communication and networking.
5. **CO5:** Apply communication skills collaboratively through professional activities and projects.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	✓	✓	✓	✓		✓	✓
CO2 Explain & interpret	✓	✓	✓	✓		✓	✓		✓
CO3 Apply Models	✓	✓	✓	✓	✓		✓	✓	✓
CO4 Analyse & evaluate	✓	✓	✓	✓	✓	✓	✓		✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I:	6 Hours [Lecture 3 Hours, Tutorial 3 Hours]
Workplace Communication and Professional Behaviour: Workplace etiquette; team communication; meetings; professional conversations; conflict handling. Tutorial 1: Workplace Communication Simulation. Students participate in workplace communication scenarios to practice professional interaction and collaboration skills. Tutorial 2: Professional Meeting and Collaboration Exercise. Students engage in simulated meetings to develop teamwork, coordination, and professional discussion abilities. Tutorial 3: Difficult Conversation Role-Play. Students perform role-plays to practice handling challenging workplace conversations with professionalism and empathy.	
Unit-II:	6 Hours [Lecture 3 Hours, Tutorial 3 Hours]
Persuasive and Professional Writing: Proposal writing; business reports; SOPs; cover letters; LinkedIn writing. Tutorial 4: Proposal Drafting Workshop. Students prepare professional proposals to enhance formal writing and business communication skills. Tutorial 5: Business Report Writing Activity. Students draft structured business reports to improve analytical	

writing and reporting techniques.

Tutorial 6: SOP and Cover Letter Clinic. Students create and refine Statements of Purpose and cover letters for academic and career opportunities.

Unit-III: 6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Leadership and Presentation Communication: Leadership communication; persuasive speaking; pitching; presentation strategies.

Tutorial 7: TED-Style Leadership Talk. Students deliver leadership-focused talks in a TED-style format to improve confidence, storytelling, and public speaking skills.

Tutorial 8: Startup/Product Pitch Simulation. Students present innovative business or product ideas through persuasive pitch presentations.

Tutorial 9: Team Business Presentation. Students collaborate in teams to prepare and deliver professional business presentations.

Unit-IV: 6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Career Communication and Employability Skills: Interview communication; networking; resume refinement; personal branding.

Tutorial 10: Mock Interview Session. Students participate in simulated interviews to develop confidence, communication, and interview-handling skills.

Tutorial 11: Resume Refinement Workshop. Students review and improve their resumes to strengthen professional presentation and employability.

Tutorial 12: Networking and Career Fair Simulation. Students practice professional networking and interaction skills through simulated career fair activities.

Unit-V: 6 Hours [Lecture 3 Hours, Tutorial 3 Hours]

Integrated Professional Communication: Professional communication projects; business communication planning; collaborative communication.

Tutorial 13: Corporate Communication Case Discussion. Students analyze and discuss corporate communication cases to understand workplace communication strategies and challenges.

Tutorial 14: Communication Campaign Planning Exercise. Students design communication campaign plans to develop strategic thinking and professional communication skills.

Tutorial 15: Integrated Professional Communication Presentation. Students deliver a comprehensive presentation integrating professional speaking, writing, and interpersonal communication skills.

Prescribed Texts:

1. Bovee, C. L., & Thill, J. V. (2021). *Business communication today* (15th ed.). Pearson Education.
2. Lehman, C. M., & DuFrene, D. D. (2020). *BCOM* (11th ed.). Cengage Learning.
3. Locker, K. O., & Kaczmarek, S. K. (2019). *Business communication: Building critical skills* (7th ed.). McGraw Hill Education.

References:

1. Adler, R. B., Elmhorst, J. M., & Lucas, K. (2019). *Communicating at work: Strategies for success in business and the professions* (12th ed.). McGraw Hill Education.
2. Bowman, J. P., & Branchaw, B. P. (2021). *How to write and give a speech* (5th ed.). St. Martin's Press.
3. Butow, E., & Taylor, K. (2018). *LinkedIn for dummies* (6th ed.). Wiley.
4. Courtland, L. B., & Thill, J. V. (2018). *Excellence in business communication* (13th ed.). Pearson Education.
5. Quintanilla, K. M., & Wahl, S. T. (2018). *Business and professional communication: Keys for workplace excellence* (3rd ed.). Sage Publications.
6. Raman, M., & Sharma, S. (2015). *Technical communication: Principles and practice* (3rd ed.). Oxford University Press.

Suggested Certifications / Value Additions:

1. <https://alison.com/course/job-search-skills-preparing-your-resume-and-cover-letter-revised>
2. <https://alison.com/course/professional-business-writing-skills>
3. <https://alison.com/course/professional-presentation-techniques>
4. <https://alison.com/course/mastering-conflict-resolution-and-communication>

Course Code : MCO213 Course Type : CCC No. of Credits : 4.00 No. of Hours : 30L + 60P	Course Title Introduction to Artificial Intelligence and Machine Learning
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Course Objectives:

1. Provide To provide students with a strong foundation in the concepts, principles, and applications of Artificial Intelligence, including problem solving, knowledge representation, machine learning, and intelligent systems.
2. To develop programming skills in Python, enabling students to write programs, apply control structures, functions, lists, and strings, and solve computational problems effectively.
3. To enable students to understand and apply AI techniques such as machine learning, natural language processing, computer vision, and reasoning methods for solving real-world problems.

Course Outcomes (COs):

By the end of the course, students can be able to;

1. **CO1:** Explain the fundamental concepts, characteristics, and applications of Artificial Intelligence and intelligent agents.
2. **CO2:** Apply problem-solving and searching techniques, including uninformed, informed, and constraint satisfaction approaches, to AI problems.
3. **CO3:** Demonstrate knowledge representation, logical reasoning, probabilistic reasoning, and automated planning techniques in AI systems.
4. **CO4:** Analyze basic machine learning models and AI applications such as NLP, speech recognition, and computer vision.
5. **CO5:** Develop Python programs using functions, control structures, strings, and lists to solve computational and AI-related problems.

COs /POs Mapping:

COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	✓	✓	–	–	✓	–	–	–	–	–	–	✓
CO2	✓	✓	✓	✓	✓	–	–	–	–	–	–	✓
CO3	✓	✓	✓	✓	✓	–	–	–	–	–	–	✓
CO4	✓	✓	✓	✓	✓	–	–	–	–	–	–	✓
CO5	✓	✓	✓	✓	✓	–	–	–	✓	✓	–	✓

Course Outline:

Unit-I: Introduction to Artificial Intelligence

[12 Hours]

Definition – Future of Artificial Intelligence - Characteristic of Intelligent Agents – Typical Intelligent Agents –Problem Solving Approach to Typical AI problems. Problem solving by Searching: Uninformed and informed strategies and implementation; Path planning; Constraint Satisfaction Problems (CSP).

Unit-II: Knowledge Representation

[12 Hours]

Logical Agents– Propositional and first order Predicate logic - inference - Knowledge representation and Automated Planning– Uncertain Knowledge and Reasoning; Quantifying uncertainty– probabilistic reasoning.

Unit-III: Machine learning & AI Applications

[14 Hours]

Machine learning basics - Learning from examples - forms of learning (supervised, unsupervised, reinforcement learning) - simple models (linear & logistic regression) - Deep Learning AI applications: Natural Language Processing - Language Models - Machine Translation; Speech Recognition; Computer Vision - Image

classification.

Unit-IV: Python Programming

[10 Hours]

Introduction-The Python Programming Language, History, features, Installing Python, Running Python program, Debugging: Syntax Errors, Runtime Errors, Semantic Errors – Experimental Debugging, Formal and Natural Languages, The Difference between Brackets, Braces, and Parentheses. Variables and Expressions: Values and Types - Variables, Variable & Keyword Type conversion - Operator and Operands – Expressions – Interactive – Mode and script Mode, Order of Operations. Conditional Statements: if, if- else, nested if –else -Looping: for, while, nested-loops. Control statements: Terminating loops, skipping specific conditions.

Unit-V: Functions

[12 Hours]

Function Calls, Type Conversion Functions, Math Functions, Adding New Functions, Definitions and Uses, Flow of Execution, Parameters and Arguments, Variables and Parameters. Strings: Strings, String Slices, Strings are immutable, and Searching–Looping–and counting String methods - the in operator–String Comparison – String operations Lists: Values and Accessing Elements, Lists are mutable, traversing a List, Deleting elements from List–, Built-in List Operators, Concatenation, In Operator, Built-in List functions and methods.

Suggested Readings:

1. M.Tim Jones, Artificial Intelligence: A Systems Approach (Computer Science), Jones and Bartlett Publishers, NC.; 1 st Edition, 2008.
2. Burkahard A Meier, Python GUI programming Cookbook, Packt Publication 2nd Edition.
3. S. Russell and P. Norvig, Artificial Intelligence: A Modern Approach, Prentice Hall, 4th Edition 2022.

References:

1. Barry, P., Head first Python: A brain-friendly guide, O'Reilly Media, Inc. Lutz, 2016.
2. Lavika Goel, Artificial Intelligence: Concept and Applications, Willy, 2021
3. Mark Lutz, Learning python: Powerful object-oriented programming, O'Reilly Media, Inc., 2013.
4. Nils J. Nilsson, The Quest for Artificial Intelligence, Cambridge University Press, 2009.

Suggested Certifications / Value Additions:

1. **Artificial Intelligence: Search Methods for Problem Solving (Swayam-NPTEL):** https://onlinecourses.nptel.ac.in/noc26_cs132/preview
2. **AI Hub: an introduction (OpenLearn / The Open University):** <https://www.open.edu/openlearn/digital-computing/ai-hub>
3. **Machine Learning with Artificial Intelligence (Alison):** <https://alison.com/course/machine-learning-with-artificial-intelligence>
4. **Python Essentials: Learn, Build & Apply (SWAYAM):** https://onlinecourses.swayam2.ac.in/e-learning/preview/ini26_cs03

SEMESTER-III

Course Code : MCO301 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Research Methodology
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

1. To introduce students to the foundations of business research from an applied perspective
2. To make students adept in assessing the choice of research methodology between qualitative, quantitative, and mixed design frameworks
3. To make students adept at orchestrating a comprehensive research design systematically, while adhering to scientific guidelines

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Comprehend the basic tenets of good research design and be able to grasp concepts pertinent to qualitative, quantitative, and mixed research design frameworks
2. **CO2:** Explain and interpret various research methodologies, sampling techniques, data collection methods, and ethical considerations in research.
3. **CO3:** Apply an appropriate research design to solve the business problem according to the nature of the problem.
4. **CO4:** Critically evaluate research studies, methodologies, data interpretations, and findings for validity, reliability, and scientific rigor.
5. **CO5:** Design and conduct research projects integrating qualitative and quantitative approaches for practical business problem-solving.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓		✓			✓
CO2 Explain & interpret	✓	✓		✓		✓			✓
CO3 Apply Models	✓		✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓		✓
CO5 Research & create	✓		✓	✓	✓	✓	✓		✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Foundations of Research and Research Design: Meaning and scope of research; business research process; identification of research problem; formulation of research objectives and hypotheses; literature review; types of research design; qualitative, quantitative, and mixed-method research frameworks; ethics in research.

Tutorial 1: Identifying a Suitable Research Paradigm. Drawing on significant contemporary issues in the business and economic environment, each team will formulate a minimum of five research questions and decide which research paradigm (qualitative, quantitative, or mixed methods) is most appropriate for each issue, justifying its scope and relevance.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Qualitative Research Methods: Philosophical foundations of qualitative research; qualitative sampling techniques; data collection methods—interviews, focus groups, observation; coding and thematic analysis; qualitative research designs—case study, ethnography, grounded theory; trustworthiness and validity in qualitative research.

Tutorial 2: Qualitative Coding using QDA Miner: Thematic coding of transcripts generated through focus group study or depth interview

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Quantitative Research Design and Measurement: Quantitative research process; variables and measurement scales; questionnaire design; sampling methods and sample size determination; reliability and validity; hypothesis testing; descriptive and causal research designs; survey research methods.

Tutorial 3: Questionnaire Design: On team chosen quantitative research problem, each team will present their questionnaire, rationale for their source and choice of scales, choice of their sampling design for evaluation from peers, and the instructor

Unit-IV: 16 Hours [Lecture 12 Hours, Tutorial 4 Hours]

Quantitative Data Analysis: Data preparation and cleaning; descriptive statistics; correlation and regression analysis; t-test, ANOVA, and Chi-square test; introduction to multivariate analysis; interpretation of statistical outputs; application of statistical software in research.

Tutorial 4: Descriptive Analysis using Excel: Preparing Demographics and other descriptive statistics tables for data collected using a questionnaire

Tutorial 5: Data Analysis using JASP: Students are given the questionnaire and accompanying dataset in advance. Each team will conjecture the hypotheses, perform various multivariate statistical, and present their findings

Unit-V: 8 Hours [Lecture 4 Hours, Tutorial 4 Hours]

Advanced Research Applications and Report Writing: Mixed-method research applications; research report structure and academic writing; referencing and plagiarism; presentation and visualization of research findings; case studies in business research; application of research for managerial decision-making.

Tutorial 6: Referencing in APA: Students will write a short article (< 1000-word article) based on Activity 5 data analysis. Each team will present their paper in a Word document in APA style, appropriately citing sources, presenting tables/figures, and preparing references according to APA format.

Prescribed Texts:

- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2023). *Business research methods* (11th ed.). Cengage Learning. ISBN: 9781285401188.
- Kothari, C. R., & Garg, G. (2024). *Research methodology: Methods and techniques* (5th ed.). New Age International Publishers. ISBN: 9789389802559.

References:

- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications. ISBN: 9781071817940.
- Cooper, D. R., & Schindler, P. S. (2024). *Business research methods* (15th ed.). McGraw-Hill Education. ISBN: 9781266840548.
- Sekaran, U., & Bougie, R. (2024). *Research methods for business: A skill-building approach* (9th ed.). Wiley India. ISBN: 9781394268047.

Suggested Certifications / Value Additions:

1. JASP offers workshops in research methodology and gives certificates of participation. More information can be found here: <https://jasp-stats.org/workshops/>
2. Alison – Quantitative Research Methods and Data Analysis <https://alison.com/course/quantitative-research-methods-and-data-analysis>

Course Code :MCO 313 Course Type : CCC No. of Credits : 2.00 No. of Hours : 30	Course Title Building Mathematical Ability and Financial Literacy
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Course Objectives:

The main objectives of this course are:

- Solving skills through mathematical reasoning, quantitative aptitude, and data interpretation, enabling them to apply these concepts in academic, professional, and real-life scenarios.
- Familiarize students with investment options, banking structures, financial institutions, taxation, insurance, and the roles of RBI and SEBI in the financial system.
- Enable students to make informed financial decisions through understanding of investment planning, risk management, digital payments, and awareness of financial frauds.

Course Learning Outcomes (COs):

By the end of the course, students can be able to;

- **CO1:** Enhance logical thinking and decision-making through structured problem-solving.
- **CO2:** Demonstrate competence in fractions, simple and compound interest ratio and proportion, and percentage-based problems.
- **CO3:** Calculate mean, median, and mode to summarize data effectively. Present data using bar charts, pie charts, and line charts for clear communication.
- **CO4:** Prepare budgets, track expenses, manage savings, and set financial goals using basic money management principles.
- **CO5:** Evaluate financial risks, use digital payment systems securely, and adopt appropriate strategies for financial planning and risk reduction.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1 Recall & define	✓	–	–	–	–	–	–	–	–	–	–	–
CO2 Explain & interpret	✓	✓	–	–	–	–	–	✓	–	–	–	–
CO3 Apply Models	✓	✓	✓	–	✓	–	–	–	–	–	–	–
CO4 Analyse & evaluate	–	✓	–	✓	–	✓	✓	–	–	–	–	✓
CO5 Research & create	–	–	✓	✓	✓	–	✓	✓	–	–	–	–

Course Outline:

Unit-I [7 Hours]

Logical Reasoning: Number series, letter series, coding-decoding, problems on ages. **Basic Set Theory:** Operations on sets, Venn diagrams, and cardinality of sets.

Unit-II [5 Hours]

Mathematical aptitude: Fractions, time and work, time and distance, ratio and proportion, percentage, profit and loss, discount, simple interest, compound interest, mensuration.

Unit-III [6 Hours]

Basic Statistics: Sources and classification of data, data interpretation, quantitative and qualitative data, graphical representation (bar chart, pie chart, line chart), mean, median, and mode for ungrouped data.

Unit-IV [5 Hours]

Foundations of Financial Literacy: Introduction to financial literacy and its process and structure, personal finance, income, expenditure, savings, and budgeting, financial goals, financial discipline, money management skills, awareness of financial frauds, basic budgeting and expense tracking activities.

Financial Institutions: Banking system and credit process, recent innovations in the banking system, Reserve Bank of India role and functions, monetary policy tools. **Capital Market;** Primary market, secondary market, financial decision-making, SEBI. **Digital Finance:** Digital payments system and digital currency.

Suggested Readings:

1. Arihant, (2019). *Teaching and Research Aptitude (General Paper 1)*. Arihant Publication (India) Limited.
2. Jain, L. & Vashistha, K. C. (2024). *Teaching and Research Aptitude (General Paper 1)*. Upkar Prakashan Agra.
3. Lewis, M. K. (2000). *Monetary economics*. Oxford University Press, New York.

References:

1. Aggarwal, R.S. (n.d). *Quantitative Aptitude*. S. Chand.
2. C Rangarajan. (1991). *Indian economy: Essays in money and finance*. UBS Publishers' Distributors Ltd.
3. Lewis, M. K. (2000). *Monetary economics*. Oxford University Press

Suggested Certifications / Value Additions:

- Money, Mind and Markets: The Science of Financial Literacy:
https://onlinecourses.swayam2.ac.in/e-learning/preview/imb26_mg144
- Financial Literacy:
https://onlinecourses.swayam2.ac.in/e-learning/preview/nou25_mg27

Course Code : MCO314 Course Type : SIP No. of Credits : 2.00 No. of Hours : 30	Course Title Summer Internship Report
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Course Objectives:

1. Provide students with practical exposure to business management practices in corporate, industrial, financial, service, entrepreneurial, and public sector organisations.
2. Strengthen analytical, managerial, communication, leadership, and problem-solving skills through experiential learning and industry engagement.
3. Develop professional competencies in business analysis, report writing, data interpretation, project execution, presentations, and viva voce evaluation.

Course Outcomes (COs):

By the end of the course, students will be able to:

1. **CO1:** Identify and understand the application of commerce concepts and business practices in corporate, industrial, financial, and service organisations.
2. **CO2:** Demonstrate practical knowledge through internship/field work related to marketing, finance, human resources, operations, business analytics, entrepreneurship, or allied management and commerce areas.
3. **CO3:** Prepare a structured internship report documenting organisational practices, assigned tasks, project findings, learning experiences, and managerial insights.
4. **CO4:** Present internship findings effectively through seminars, business presentations, and professional communication.
5. **CO5:** Defend practical insights, analytical observations, and applied managerial knowledge during viva voce evaluation.

COs / POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1 Recall & define	✓	✓	—	—	✓	—	✓	✓	✓	✓	✓	✓
CO2 Explain & interpret	✓	✓	✓	✓	✓	—	✓	✓	✓	✓	✓	✓
CO3 Apply Models	—	✓	—	✓	✓	—	—	—	✓	✓	✓	✓
CO4 Analyse & evaluate	—	✓	✓	✓	✓	—	—	✓	✓	✓	✓	✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

I. Duration: 8 weeks during summer vacation.

II. Nature of Work:

Internship must align with the student's specialisation and may include work in:

- Corporate accounting departments and business enterprises
- Banking and financial institutions
- Auditing and taxation firms
- Insurance companies and financial service providers
- E-commerce and retail organisations
- Investment and wealth management firms
- Business process outsourcing (BPO) and KPO companies
- Government departments and public sector undertakings
- Non-governmental organisations (NGOs) and cooperative societies

- Research, consultancy, and academic institutions
- Start-ups and entrepreneurial ventures
- Export-import and international trade organisations

III. Report Submission:

Students shall submit a detailed internship report along with a certificate from the host organisation/institution.

IV. Evaluation:

- Internship Report (External Examiner): 60 Marks
- Viva-Voce (Department): 40 Marks

V. Supervision:

Each student shall work under the guidance of a faculty supervisor.

VI. Final Submission:

Internship report/dissertation must follow university rules and formatting guidelines.

Suggested Reading:

- Assignment and Thesis Writing. 4th edition, India: Wiley, 2019.
- Research Methodology. 2nd edition, India: New Age International Publishers, 2004.
- Business Research Methods. 12th edition, McGraw-Hill Education, 2014.
- Research Methodology: Methods and Techniques. New Age International Publishers, 2019.

SEMESTER-IV

Course Code : MCO 401 Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title GST & Customs Law
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)		1 (30 Hours)

Course Objectives:

1. To understand the basic concepts, structure, and features of GST and Customs Laws.
2. To learn the provisions relating to supply, valuation, and taxable transactions under GST.
3. To understand Input Tax Credit, GST documents, tax payment, refunds, and return filing procedures.
4. To develop practical skills in GST accounting, GST return filing, and use of GST Portal and Accounting Software.
5. To understand customs duty, customs procedures, and export-import regulations

Course Outcomes (COs):

After completion of the course, students will be able to:

1. Explain the concepts and structure of GST and Customs Laws.
2. Identify taxable supplies and compute GST on different transactions.
3. Apply the provisions relating to Input Tax Credit, GST payment, refunds, and returns.
4. Prepare GST invoices, maintain GST accounts, and file GST returns using Accounting Software and GST Portal.
5. Calculate customs duty and understand customs procedures relating to imports and exports.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	-	✓	-	-	-	✓	-
CO2 Explain & interpret	✓	✓	✓	✓	-	-	✓	✓	-
CO3 Apply Models	✓	✓	✓	✓	-	✓	-	✓	✓
CO4 Analyse & evaluate	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5 Research & create	-	✓	✓	✓	✓	✓	✓	✓	✓

| Course Outline:

Unit-I: 14 Hours [Lecture: 9 Hours, Practical 5 Hours]

Structure of GST and Registration: Indian Tax Structure: Direct Taxes - Indirect Taxes. Introduction to GST: Genesis of GST - Objectives of GST - Features of GST - Taxes subsumed under GST. Structure of GST: CGST - SGST - UTGST - IGST - Dual Model of GST - Advantages of Dual Model of GST. GST Administration: GST Council - GST Network (GSTN) - HSN and SAC Codes - GST Tax Rates. Registration under GST: Registration Process - Compulsory Registration - Liability for Registration - Exemption from Registration - GST Identification Number (GSTIN) - Deemed Registration - Cancellation and Revocation of Registration..

Lab 1: Familiarization with GST Portal, GST Registration Process and Identification of HSN/SAC Codes

Unit-II: 14 Hours [Lecture 9 Hours, Practical 5 Hours]

Taxable Event and Supply under GST: Taxable Event under GST: Concept of Supply - Supply of Goods and Services - Inward and Outward Supplies. Place of Supply: Inter-State Supply - Intra-State Supply. Supply

Transactions under GST: Imports and Exports - Time of Supply - Valuation of Supply - Zero Rated Supply - Exempt Supply - Mixed and Composite Supply. Return of Goods: Purchase Returns - Sales Returns. Special Transactions under GST: Supplies Inclusive of Tax - Reverse Charge Mechanism - Composition Scheme - Purchases from Composition Dealers - Purchases from Unregistered Dealers - SEZ Sales - Advance Receipts and Payments.

Lab 2: Classification of Inter-State and Intra-State Supplies and Computation of GST on supply Transactions

Unit-III: 20 Hours [Lecture 10 Hours, Practical 10 Hours]

Input Tax Credit and GST Documentation: Input Tax Credit (ITC): Eligible and Ineligible Input Tax Credit - Apportionment of Credit - Blocked Credit - Tax Credit on Capital Goods - Availability of ITC under Special Circumstances - Transfer of Input Tax Credit - Input Service Distributor (ISD). GST Documentation: Tax Invoice - Bill of Supply - Credit Note - Debit Note - Receipt Voucher - Payment Voucher - Revised Invoice - Transportation of Goods without Issue of Invoice - Delivery Challan.

Lab 3: Generating GST Tax invoices, GST Accounting Entries and creation of GST Ledgers by using an Accounting Software.

Unit-IV: 20 Hours [Lecture 10 Hours, Practical 10 Hours]

GST Compliance, Payment, Refunds and Returns: Payment of Tax under GST: Modes of Payment - Electronic Liability Register - Electronic Credit Ledger - Electronic Cash Ledger - Timeline for Payment of Tax - Challan Reconciliation - Interest on Delayed Payment - Set-off of Input Tax Credit. Refund Procedures: Application for Refund of Tax, Interest, Penalty, Fees or any Other Amount - Acknowledgement - Provisional Refund - Refund Sanction Orders - Rejected Refund Claims - Interest on Delayed Refunds - Refund to Specified Persons - Refund of Integrated Tax on Exports - Consumer Welfare Fund. GST Returns and Filing Procedures: GSTR-1 - GSTR-3B - GSTR-4 - GSTR-5 - GSTR-6 - GSTR-7 - GSTR-8 - GSTR-9 - GSTR-10 - GSTR-11.

Lab 4: GST Tax payment Simulation, Preparation of GST Challans and their Reconciliation

Lab 5: Filing of GST Returns by using different GSTR forms, Uploading of GST Returns on GST Portal and Generating GST Reports in and Accounting Software

Unit-V: 7 Hours [Lecture 7 Hours]

Customs Law: Introduction to Customs Law: Objectives and Scope of Customs Duty - Types of Customs Duties - Valuation for Customs Duty. Customs Procedures: Imports and Exports - Baggage - Postal Articles - Stores. Customs Provisions: Exemptions - Remissions - Demand Recovery - Refunds - Export Incentives. Customs Administration: Customs Act and Rules - Adjudication - Customs Tribunal.

Suggested Readings:

1. Ahuja, Girish Gupta, Ravi. Systematic Approach to GST. Wolters Kluwer.
2. Gupta, S.S. Taxmann's GST New Returns - How to Meet Your Obligations - A Practical Guide for filing of New GST Returns.
3. Gupta, Vineet and Gupta, N. K. Fundamentals of Goods and Services Tax. Bharat Law House Pvt Ltd Publication.
4. Mehrotra H.C. and Agarwal, V. P. Goods and Services Tax and Customs. Sahitya Bhawan.

References:

1. Murthy, K. Ch. A. V.S. N. Lavanya, K. V. N. & Lakshmi, V. D. M. V. Theory and Practice of Goods & Service Tax. Telugu Academy, Hyderabad.
2. Saha, R.G Shah, Divyesh and Devi, Usha. GST, Himalaya Publishing House.
3. V.K. Singhania and Monica Singhania Students guide to GST and Customs Law Taxmann Publication 5th edition 2020.
4. V.S. Datey Elements at Central Excise and Customs Law Taxmann Publication 5th edition 2007

Suggested Certifications / Value Additions:

1. <https://www.mygreatlearning.com/academy/learn-for-free/courses/goods-and-service-tax-gst-fundamentals>
2. GST Course offered by NPTEL for more information click on the web link : https://onlinecourses.nptel.ac.in/e-learning/preview/noc24_mg138
3. Indirect Tax Law: https://onlinecourses.swayam2.ac.in/e-learning/preview/cec26_cm12

Course Code : MCO 414 Course Type : Dissertation No. of Credits : 8 No. of Hours : 120	Course Title Dissertation
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Course Objectives:

1. Provide students with an opportunity to apply commerce theories, analytical tools, and research methodologies to real-world business problems through consulting assignment(s).
2. Develop skills in business research, data analysis, problem-solving, critical thinking, and decision-making in specialised areas of management.
3. Enhance competencies in academic writing, project execution, report preparation, presentation, and viva voce examination.

Course Outcomes (COs):

By the end of the course, students will be able to:

1. **CO1:** Identify and formulate research problems related to management, business, industry, or organisational practices.
2. **CO2:** Apply appropriate research methodologies, analytical tools, and management concepts for data collection, interpretation, and analysis.
3. **CO3:** Prepare a systematic dissertation/project report with proper documentation, analysis, findings, and recommendations.
4. **CO4:** Present research findings effectively through seminars, project presentations, and professional communication.
5. **CO5:** Defend research outcomes, managerial implications, and analytical interpretations during viva voce evaluation.

COs / POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1 Recall & define	✓	✓	—	✓	✓	—	✓	✓	✓	✓	✓	✓
CO2 Explain & interpret	✓	✓	✓	✓	✓	—	✓	✓	✓	✓	✓	✓
CO3 Apply Models	✓	✓	—	✓	✓	—	—	—	✓	✓	✓	✓
CO4 Analyse & evaluate	—	✓	✓	✓	✓	—	—	✓	✓	✓	✓	✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

I. Duration: One Semester

II. Nature of Work:

Students shall undertake a research-based dissertation/project in their area of specialisation, such as:

- Accounting and Taxation
- Banking and Financial Services
- Corporate Accounting
- Auditing and Assurance
- Investment and Portfolio Management
- Business Analytics and Financial Modelling
- Entrepreneurship and Small Business Management
- International Business and Trade
- Insurance and Risk Management
- E-Commerce and Digital Business

- Retail and Marketing Management
- Human Resource and Organisational Practices
- The work may involve:
- Preparation and analysis of financial statements
- Tax planning and GST-related studies
- Banking and investment analysis
- Auditing and compliance assessment
- Survey and field-based commerce studies
- Case analysis of business and financial practices
- Organisational and accounting problem-solving
- Cost, budgetary, and financial analysis
- Business data analysis and interpretation
- Trade and market-related research activities

III. Report Submission:

Students shall submit a detailed dissertation/project report prepared in accordance with university guidelines and supported with relevant data, analysis, findings, and recommendations.

IV. Evaluation:

- Dissertation Report and Viva-Voce

V. Supervision:

Each student shall work under the guidance of a faculty supervisor.

VI. Final Submission:

The dissertation/project report must follow university formatting and plagiarism guidelines.

Suggested Reading:

1. Assignment and Thesis Writing. 4th edition, India: Wiley, 2019.
2. Research Methodology. 2nd edition, India: New Age International Publishers, 2004.
3. Business Research Methods. 12th edition, McGraw-Hill Education, 2014.
4. Research Methodology: Methods and Techniques. New Age International Publishers, 2019.

DISCIPLINE-SPECIFIC ELECTIVES

I. Analytics in Accounting and Finance

Course Code : MCO_16A Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Accounting Information Systems
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

1. To provide conceptual understanding of Accounting Information Systems and their role in business organizations.
2. To develop knowledge of transaction processing systems, accounting cycles, and ERP systems.
3. To familiarize students with internal controls, auditing procedures, and security measures in AIS.
4. To enhance practical skills in database management, financial reporting, and innovative accounting technologies.
5. To enable students to understand system development, implementation, and maintenance processes in AIS.

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Understand the concepts, structure, and functions of Accounting Information Systems in business organizations.
2. Analyze transaction processing systems and accounting information cycles for effective financial reporting.
3. Evaluate internal control systems, auditing procedures, and fraud prevention mechanisms in AIS environments.
4. Apply modern technologies such as ERP systems, databases, and XBRL in accounting information processing.
5. Demonstrate knowledge of system development, implementation, and maintenance processes in Accounting Information Systems.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	–	✓	–	–	–	–	–
CO2 Explain & interpret	✓	✓	✓	✓	–	–	✓	–	–
CO3 Apply Models	✓	✓	✓	✓	✓	–	–	✓	–
CO4 Analyse & evaluate	✓	✓	✓	✓	–	✓	–	–	✓
CO5 Research & create	–	–	✓	–	✓	✓	✓	✓	✓

Course Outline:

Unit-I: **12 Hours [Lecture: 9 Hours, Tutorial 3 Hours]**

Overview of Accounting Information Systems: An Overview of AIS; Functions, Value Addition by AIS, AIS and Corporate Strategy, Role of AIS in organizational value chain and stakeholder interaction and AIS, Overview of Transaction Processing and Enterprise Resource Planning Systems; AIS development strategies. Tools used in systems analysis and design flow charts and decision models.

Tutorial 1: Preparation of manual flowcharts for accounting transactions and Case study analysis on AIS applications in companies

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Accounting Information System Cycles: Structure and models of accounting information systems; Revenue cycle: systems; General ledger and reporting cycle; Interface of accounting information and management system; Organization of accounting information System.

Tutorial 2: Role play on transaction processing activities and Preparation of general ledger and reporting cycle formats

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Controls and Audit in Accounting Information System: Prevalence, Prevention and Detection of Fraud in AIS; Information system control for system reliability, information security, confidentiality, integrity, and availability, COSO Framework, Basic Overview of COBIT and ERM control frameworks; Auditing computer-based information system- information system audit and its Four Step Approach, internal control system in AIS, audit of an AIS, Nature and Scope of operational Audit.

Tutorial 3: Preparation of audit reports for hypothetical organizations and Group discussion on confidentiality and information security

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Innovative Technologies in Accounting Information: Data processing modes and strategies, Database management systems, Basic overview of REA approach to database modelling - 165 HR/payroll, manufacturing, and capital assets business cycles; Enterprise resource planning (ERP) systems; Applying XBRL in AIS; Financial reporting and management reporting systems.

Tutorial 4: Seminar presentations on emerging technologies in AIS and Group assignment on modern innovations in accounting systems

Unit-V: 12 Hours [Lecture 9 Hours, Tutorials 3 Hours]

System Development and Implementation: systems development life cycle, systems development planning, key issues and steps in systems analysis, principles and challenges of business process management, prototypes used to develop an AIS, systems design process, systems implementation and conversion process, systems operation and maintenance process.

Tutorial 5: Designing prototypes of accounting documents and reports

Suggested Readings:

1. Hall, James A. Accounting Information Systems. Cengage Learning.
2. Karthikeyan M, Accounting Information System, Avinash Paperback

References:

1. Marshall, B Romney and Paul, J Steinbart, Accounting Information System.
2. Romney, M. B., & Steinbart, P. J. (2021). *Accounting information systems* (15th ed.). Pearson Education.
3. Gelinas, U. J., Dull, R. B., & Wheeler, P. R. (2018). *Accounting information systems* (11th ed.). Cengage Learning.

Suggested Certifications / Value Additions:

1. Alison's Top Free Online Courses For "accounting information system"
<https://alison.com/courses?query=accounting%20inforamtion%20system>
2. Management Information System
3. https://onlinecourses.nptel.ac.in/e-learning/preview/noc20_mg60
4. Cyber Security and Privacy
5. https://onlinecourses.nptel.ac.in/e-learning/preview/noc26_cs144

Course Code : MCO_17A Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Forensic Accounting and Auditing
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	-

Course Objectives:

1. To understand the concepts and importance of forensic accounting and fraud examination.
2. To learn different types of frauds and fraud detection techniques.
3. To develop skills in fraud risk assessment and prevention.
4. To understand forensic audit procedures and investigation methods.
5. To gain practical knowledge using case studies, audit tools, and technology.

Course Outcomes (COs):

After completing the course, students will be able to:

1. **CO 1:** Explain the role of forensic accounting and forensic auditors.
2. **CO 2:** Identify different frauds, fraud risks, and red flags.
3. **CO 3:** Apply analytical techniques to detect financial statement fraud.
4. **CO 4 :** Conduct basic fraud risk assessment and forensic investigations.
5. **CO 5:** Use audit tools and technology to support fraud detection and prevention.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	-	✓	-	-	-	✓	-
CO2 Explain & interpret	✓	✓	✓	✓	-	✓	✓	✓	-
CO3 Apply Models	✓	✓	✓	✓	-	✓	-	✓	✓
CO4 Analyse & evaluate	✓	✓	✓	-	✓	✓	✓	✓	✓
CO5 Research & create	-	✓	✓	✓	✓	✓	✓	✓	✓

| Course Outline:

Unit-I: 12 Hours [Lecture: 9 Hours, Tutorials 3 Hours]

Foundations of Forensic Accounting and the Taxonomy of Fraud: Forensic Accounting: Meaning, Concept, Role of the professional forensic accountant, Requirements of professional forensic accountant, Responsibilities of accounting investigators and auditors. Fraud - Introduction, Types of fraud, Reasons of fraud, Fraud cycle, Bank Fraud, Corporate Fraud, Insurance Fraud, Cyber Frauds, Securities Fraud, Consumer Frauds, Traits & behaviors of fraudsters, Targets of fraudsters, case studies.

Tutorial 1: The Fraudster Profiling Workshop

Students must create a "Wanted Poster" for a hypothetical fraudster. It must include the **Traits & Behaviors** (e.g., "never takes a vacation," "living beyond means"), the **Target** (e.g., vulnerable seniors or weak internal controls), and the specific **Fraud Cycle** stages they would follow.

Tutorial 2: "White-Collar" Case Analysis Students must map the case against the **Fraud Triangle** (Pressure, Opportunity, Rationalization)

Unit-II: 12 Hours [Lecture 9 Hours, Tutorials 3 Hours]

Fraud Detection Techniques: Fraud detection techniques, Effective information gathering methods, Fraud risk factors, Professional analytical procedures and techniques. Financial statement fraud - Meaning, Introduction, revenue recognition detection, ratio analysis, horizontal analysis, vertical analysis, cash flow analysis, case studies.

Tutorial 3: The "Cooking the Books" activity lab

Students are given two sets of simplified financial statements. One is legitimate; the other has been "manipulated"

(e.g., inflated revenue or suppressed expenses). Students must perform Horizontal and Vertical Analysis to spot the anomalies and ask them to calculate the Accounts Receivable Turnover Ratio. If sales are "up" but cash flow is "down," they must explain why this suggests revenue recognition fraud.

Tutorial 4: The Information Gathering Interview

Role-play an "Effective Information Gathering" session. One student is the Accounting Investigator; the other is a "Hostile Witness" (a manager).

Unit-III:

12 Hours [Lecture 9 Hours, Tutorials 3 Hours]

Fraud Risk Assessment: Profiling Fraudsters, Organizational profiling methods, Risk analysis & assessment, variety of risk assessment factors, best practices. Fraud risk prevention - meaning, importance, combatting actual instances of fraud, case studies.

Tutorial 5: Organizational Vulnerability Audit

Provide a description of a hypothetical company's internal structure (e.g., "The CEO's son handles all cash deposits and bank reconciliations"). Students perform a Risk Assessment. They must list "Red Flags" and categorize them by Risk Matrix impact (High/Medium/Low).

Tutorial 6: The "Anti-Fraud" Policy Design

After analyzing a case study where fraud occurred, students must act as the Professional Forensic Accountant.

Unit-IV:

12 Hours [Lecture 9 Hours, Tutorials 3 Hours]

Forensic Audit: Meaning and Significance - Meaning of Audit - Audit: An Adhering Significance - Stages of Audit - Meaning of Forensic Audit - Significance of Forensic Audit - Key Benefits of Forensic Audit - Need and Objectives: Forensic Audit - Fraud and Forensic Audit: An Introspect - Forensic Audit vis-d-vis Audit.

Tutorial 7: The "Two Hats" Comparison Study

Based on the Scenario Provided on "Discrepancy" in a warehouse students must write two approaches on the given scenario

Tutorial 8: The "Adhering Significance" Debate

Splitting the class into "Stakeholder Groups" (Shareholders, Tax Authorities, Employees, and Management). The Goal of Each group must argue why a Forensic Audit is "significant" to them specifically.

Unit-V:

12 Hours [Lecture 9 Hours, Tutorials 3 Hours]

Audit & Investigations: Tools for handling Forensic Audit - Forensic Audit Thinking (Thinking Forensically) - Forensic Audit Procedures - Appropriate Use of Technology - Investigation Mechanism - Types of Investigations - Methods of Investigations: Computer Assisted Auditing Techniques (CAATs) and tools (CAATT) Generalized Audit Software (GAS), Common Software Tools (CST). Finding Facts and Conducting Investigations - Red Flags - Green Flags.

Tutorial 9: The "Red Flag vs. Green Flag" Scavenger Hunt

Task: Provide a "Day in the Life" narrative of an accounts manager, including their personal habits and 10 financial transaction snippets. Students must categorize items as Red Flags (e.g., manager never takes leave, transactions at 2 AM) or Green Flags (e.g., consistent reconciliations, sequential numbering).

Tutorial 10: Investigation Mechanism Flowchart

Based on a fraud discovery (e.g., a whistleblower tip), students must design the Investigation Mechanism.

Suggested Readings:

1. Ibrahim Kabir (2016), Forensic Audit, Forensic Tools and Techniques for Internal Auditors.
2. Pickett K H (2010), The Internal Auditing Handbook, 3rd Edition, John Wiley and Sons, Inc.
3. Shah Bhavesh (2014), Basics about Forensic Accounting and Auditing, The LinkedIn.
4. Study on Forensic Accounting and Fraud Prevention, ICAI, NEW Delhi.
5. George A. Manning (2010), Financial Investigation and Forensic Accounting, 3rd Edition, CRC Press.
6. Gupta and Gupta (2015), Corporates Frauds in India - Perceptions and Emerging Issues, Journal of Financial Crime, 22(1): 79 -103.
7. ICSI Study Material on Forensic Audit

.References:

1. Forensic Accounting and Fraud Examination by William Hopwood, Jay Leiner and George Young, McGraw-Hill Companies, Inc. (2011).
2. Forensic Accounting for Dummies, Frimette Kass-Shraibman and Vijay Sampath, Wiley Publishers
3. A Guide to Forensic Accounting Investigation, Thomas Golden, Steven Skalak and Mona Clayton, Wiley Publishers.
4. Forensic Accounting and Fraud Examination, Mary-Jo Kranacher, Richard Riley and Joseph Wells, Wiley Publishers.

5. Bologana and Robert (2013), Fraud Auditing and Forensic Accounting: New Tools and techniques, 2nd Edition.
6. Gangully Jagdish (2015), Lecture Notes on Forensic Accounting Investigations, Acc 551 at SUNY Albany.
7. Silverstone and Pedneault (2013), Forensic Accounting and Fraud Investigation for Non-Experts, 3rd Edition, ISBN-13: 978-0470879597.

Suggested Certifications / Value Additions:

1. ELearning college offering free online course on Forensic Accounting-
<https://www.elearningcollege.com/learn/forensic-accounting-free-online-course>
2. Fundamentals of Forensic Accounting and Fraud Detection https://onlinecourses.swayam2.ac.in/e-learning/preview/ini26_cm08

Course Code : MCO_18A Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Machine Learning for Business Decisions
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	—	1 (30 Hours)

Course Objectives:

1. To provide students with a strong foundation in machine learning concepts and data-driven managerial decision-making.
2. To develop students' ability to prepare, clean, and analyze business datasets using zero-coding and low-code analytical tools.
3. To enable students to apply machine learning workflows, evaluate predictive models, and interpret business insights using visual analytics platforms.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. CO1: Recall and explain machine learning concepts, terminology, workflows, and business applications.
2. CO2: Interpret data preprocessing outputs, exploratory analysis, and machine learning results for managerial decision-making.
3. CO3: Apply SQL querying, missing value treatment, outlier cleaning, and visual machine learning workflows using zero-coding tools.
4. CO4: Analyze classification, regression, clustering, and model evaluation outputs to support business decisions.
5. CO5: Design data-driven managerial solutions using machine learning techniques

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	—	✓	—	—	—	—	✓
CO2 Explain & interpret	✓	✓	✓	✓	—	✓	—	—	✓
CO3 Apply Models	✓	✓	✓	✓	✓	—	✓	—	✓
CO4 Analyse & evaluate	✓	✓	✓	✓	✓	✓	✓	—	✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Business Analytics Using JASP and Open-Source Intelligence Tools: Introduction to open-source analytics ecosystems; importing and understanding business datasets; descriptive analytics using JASP; frequency analysis; correlation analysis; regression analysis; visualization and dashboards; introduction to predictive analytics; identifying trends and patterns in managerial datasets; customer analytics; sales analytics; business forecasting concepts; introduction to big data and data-driven organizations; managerial storytelling using analytics outputs.

Lab 1: Open-Source Business Analytics Lab. Students will use JASP to perform descriptive analytics, correlation analysis, regression analysis, and business visualization for managerial decision-making using real-world datasets.

Unit-II: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

SQL and Data Engineering for Business Analytics: Relational databases; tables and relationships; SQL fundamentals; SELECT statement; WHERE clause; ORDER BY; GROUP BY; HAVING clause; aggregate

functions; JOIN operations; filtering and sorting business data; querying managerial datasets using DB Browser for SQLite; introduction to business data pipelines.

Lab 2: SQL and Data Querying Workshop: Students will use DB Browser for SQLite to query and analyze business datasets and generate managerial reports.

Unit-III: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Data Cleaning and Preparation Using OpenRefine: Missing value analysis; handling missing values; duplicate detection and removal; text standardization; clustering similar values; outlier detection and cleaning; faceting and filtering; preprocessing workflows; transforming and exporting cleaned datasets for machine learning applications.

Lab 3: Data Cleaning Workshop. Students will clean messy business datasets using OpenRefine and prepare datasets for machine learning workflows.

Unit-IV: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Machine Learning Workflows Using Orange Data Mining; Training and testing datasets; classification and regression concepts; logistic regression; decision trees; random forests; naive Bayes; k-nearest neighbors; linear regression; clustering concepts; k-means clustering; bagging techniques; boosting techniques; drag-and-drop machine learning workflows using Orange Data Mining; managerial interpretation of model outputs.

Lab 4: Visual Machine Learning Lab. Students will build classification, regression, clustering, bagging, and boosting workflows using Orange Data Mining and compare model outputs for business decision-making.

Unit-V: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Model Evaluation and Responsible AI: Overfitting and underfitting; bias-variance tradeoff; confusion matrix; accuracy; precision; recall; F1 score; ROC and AUC; MAE; MSE; RMSE; MAPE; R-squared; cross-validation; train-test split; model comparison; hyper parameter tuning, explainable AI; fairness and ethics in AI; communicating machine learning insights to managerial stakeholders.

Lab 5: Machine Learning Evaluation Studio. Students will evaluate and compare classification, regression, bagging, and boosting models using Orange and recommend suitable managerial actions based on model performance.

Prescribed Texts:

1. James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). *An Introduction to Statistical Learning* (2nd ed.). Springer.
2. Provost, F., & Fawcett, T. (2013). *Data Science for Business*. O'Reilly Media.

References:

1. Molnar, C. (2022). *Interpretable Machine Learning* (2nd ed.). Leanpub.
2. Shmueli, G., Bruce, P., Gedeck, P., & Patel, N. (2023). *Data Mining for Business Analytics*. Wiley.
3. Bruce, P., Bruce, A., & Gedeck, P. (2020). *Practical Statistics for Data Scientists* (2nd ed.). O'Reilly Media

Suggested Certifications / Value Additions:

1. Cisc and NetAcademy are offering a free course on Python Essentials (I & II). Free certificate / badge upon completion. The following are the details of the introductory and advanced courses
 - o <https://www.netacad.com/courses/python-essentials-1?courseLang=en-US>
 - o <https://www.netacad.com/courses/python-essentials-2?courseLang=en-US>
2. Google Garage offers an ML crash course offering a badge upon completion that can be displayed in your LinkedIn profile
 - o <https://developers.google.com/machine-learning/crash-course>
3. Jio Institute offers free foundations of AI course using multiple Gen AI tools. Free badge upon completion. Details here
 - o <https://www.jio.com/ai-classroom/>
4. Business Analytics and For Management Decisions
 - o https://onlinecourses.nptel.ac.in/e-learning/preview/noc20_mg11
5. Database Management System
 - o https://onlinecourses.nptel.ac.in/e-learning/preview/noc22_cs91

Course Code : MCO_19 A Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Blockchain Accounting and Cyber Security
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)		1 (30 Hours)

Course Objectives:

1. To examine the history of the double-ledger accounting system, identifying weaknesses and opportunities for improvement that blockchain could provide and understand how blockchain will transform business and peer-to-peer activity and the related implications.
2. To research the status of the regulations across different dimensions, such as GAAP and IFRS, and determine how to apply existing rules to blockchain activity. Deliberate on issues including trust, privacy concerns and threats to traditional accounting and reflect on the proliferation of tokenization of assets and the impact on our lives in the future.
3. To analyze real-world use cases of blockchain in business, with a particular focus on the accounting improvements, risks and implications.
4. To provide knowledge on cybercrimes and the legal provisions for protection against them.
5. To develop capability to undertake cyber forensic and manage the cyber risk.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1: Understand and examine** the fundamentals, benefits, challenges, and applications of blockchain technology, distinguish blockchain from cryptocurrencies such as Bitcoin, and examine the role of smart contracts and ESG applications in accounting and business practices.
2. **CO2: Interpret and analyze** accounting rules such as GAAP and IFRS relating to crypto-assets and blockchain transactions, and evaluate different accounting treatments and investor reactions to cryptocurrency-related decisions.
3. **CO3: Explain and evaluate** the concept and types of tokenization, including NFTs, stablecoins, CBDCs, security tokens, and utility tokens, and assess their benefits, challenges, and regulatory differences across countries.
4. **CO4: Identify, distinguish, and assess** different forms of cybercrimes and cyber laws, distinguish cybercrime from conventional crime, and assess legal issues related to hacking, cyber fraud, cyber terrorism, and online misconduct.
5. **CO5: Explore and appraise** cyber forensic concepts, cyber laws, consumer protection, and risk management, and evaluate privacy, taxation, security, and legal issues in e-commerce and digital platforms.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓	–	–	–	–	–	–	✓
CO2 Explain & interpret	✓	✓	✓	✓	–	–	–	–	✓
CO3 Apply Models	✓	✓	✓	✓	✓	–	✓	–	✓
CO4 Analyse & evaluate	✓	✓	✓	✓	✓	✓	✓	–	✓
CO5 Research & create	–	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: **15 Hours [Lecture 9 Hours, Practical 6 Hours]**

Blockchain Technology: Introduction of blockchain technology, the difference between bitcoin and blockchain, what benefits and challenges are inherent in the technology. The History of Accounting & Challenges and

Criticisms of Blockchain Technology Unique 44 benefits of blockchain from the benefits from other (related) tools (i.e., smart contracts)? The EY ESG blockchain currently in the development stage. Contrast between 2 use-cases.

Lab 1: Explore a basic smart contract demo platform and observe how automated agreements are executed blockchain systems

Lab 2: Blockchain Network Mapping using Spreadsheet/Data Tools: Collect blockchain transaction data and visualize transaction flow, frequency, and trends using spreadsheet charts

Unit-II:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Interpreting and Applying Accounting Rules to Crypto-assets: Pre-Class Reading Requirement - How to interpret and apply existing GAAP and IFS rules to blockchain. Contrast different accounting treatments for public companies. Accounting Research Spotlight, presented by NYU Stern Accounting PhD student, Stephanie Dong: How do investors react to public company acquisitions of cryptocurrency

Lab 3 : Extract crypto-related disclosures from annual reports of companies and analyze them using spreadsheet tools.

Lab 4 : Collect historical crypto prices and create charts or dashboards to examine volatility and financial reporting implications.

Unit-III:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Tokenization of Assets: Definition, types of, challenges and benefits of tokenization. NFTs, Stablecoins, CBDCs, Security Tokens, Utility Tokens. Contrast in the political "friendliness" of various countries.

Lab 5: Digital Token Classification Database Create a database/spreadsheet classifying tokens into NFTs, Stablecoins, CBDCs, Security Tokens, and Utility Tokens with features.

Lab: 6 Country-wise Crypto Regulation Dashboard Use spreadsheet or visualization tools to prepare a comparative dashboard of regulations and crypto-friendliness across countries .

Unit-IV:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Cyber Crimes and Cyber Laws: Introduction, Computer crime and cybercrimes; Distinction between cybercrime and conventional crimes; Kinds of cybercrimes - cyber stalking, cyber terrorism, Forgery and fraud, Crimes related to IPRs, Computer vandalism. Cyber Laws- Need for cyber laws, international scenario of cyber laws; Law relating to cybercrimes, hacking, web vandals, cyber fraud and cheating, e-mail spamming, cyber pornography, inappropriate web linking practices.

Lab 7: Phishing Email Detection Exercise: Analyze sample emails/websites and identify phishing indicators such as suspicious URLs, spoofing, and fraudulent content.

Lab 8: Cybercrime Data Visualization: Collect cybercrime statistics from government or cybersecurity reports and visualize trends using Excel dashboards/charts.

Unit-V:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Cyber Laws and Forensics: International libel laws and liability of ISPs cyber squatter, domain name disputes, copy right protection in cyber world, software piracy. software patents, taxation issues in e-commerce; Protection to cyber consumer in India. Cyber Forensic -Contemporary Business Issues in Cyber Space; Management of risk in - Internet, Web Centric Business, E Business, Electronic Governance, Instant messaging 48 platforms, social networking sites and mobile applications, Security risks, Cyber jurisdiction, Domain name dispute and their resolution, E-forms; E-Money, Regulations of Pre-Payment Instruments (PPI, Electronic Money Transfer, Privacy of Data and Secure Ways of Operation in Cyber Space.

Lab 9: Digital Footprint Analysis Examine publicly available digital footprints from websites or social media platforms and discuss privacy and legal concerns.

Lab 10: E-Commerce Privacy & Security Audit

Prescribed Texts:

1. Pascual, E. Pedreno, and Gelashivili, V. Blockchain and its Application in Accounting.
2. Saurav K. Dutta. The Definitive Guide to Blockchain for Accounting and Business - Understanding the Revolutionary Technology.
3. Albrecht, W. Steve. Forensic Accounting and Fraud Examination. Cengage Learning (India Edition).
4. Albrecht, Chad O., Albrecht, Conan C., Albrecht, W. Steve & Zimelman, Mark F. Forensic Accounting & Fraud Examination. Cengage Learning.

References:

1. Sean, Stein Smith. Blockchain, Artificial Intelligence and Financial Services. Springer.
2. Dalal, Chetan. Novel and Conventional Methods of Audit, Investigation and Fraud Detection. Wolters Kluwer India Pvt Ltd.
3. Gupta, Sanjeev. Corporate Frauds and their Regulation in India. Bharat Law House Pvt Ltd.

Suggested Certifications / Value Additions:

1. <https://alison.com/course/diploma-in-cyber-security-> Diploma in Cyber Security
2. <https://alison.com/course/cyber-security-best-practices-and-standards>
3. Blockchain: https://onlinecourses.swayam2.ac.in/e-learning/preview/aic21_ge01
4. Cyber Security: https://online-degree.swayam2.ac.in/mri22_07_d03_s2_el06/preview

Course Code : MCO_20A Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Financial Analytics
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	-----

Course Objectives:

1. Introduce students to the concepts and applications of financial analytics.
2. Develop analytical skills for financial decision-making using quantitative tools.
3. Enable students to apply statistical and predictive models in finance.
4. Provide practical exposure to financial analytics software and tools

Course Outcomes (COs):

After successful completion of the course, students will be able to:

1. **CO1:** Understand the fundamentals of financial analytics and financial data.
2. **CO2:** Explain statistical and analytical techniques in financial decision-making.
3. **CO3:** Apply financial statements and market trends using analytical tools.
4. **CO4:** Use spreadsheet and analytical software for analyzing financial modelling.
5. **CO5:** Develop predictive financial models and investment insights.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓					✓
CO2 Explain & interpret	✓	✓	✓	✓			✓		✓
CO3 Apply Models	✓	✓		✓	✓		✓	✓	✓
CO4 Analyse & evaluate		✓	✓	✓	✓	✓	✓		✓
CO5 Research & create	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Data Analytics: Introduction to Financial Analytics and its concepts – Financial data sources – Structured and unstructured financial data – Data collection, cleaning, and validation – Financial data preparation and management – Financial data analysis using MS Excel – Financial dashboards and Key Performance Indicators (KPIs) – Introduction to data visualization using Power BI and Tableau.

Tutorial 1: Collection and organisation of financial data – Extraction and analysis of stock market data – Preparation of financial dashboards using Excel and Power BI – Company performance analysis using financial datasets.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Investment Analytics and Stock Market Analysis: Financial markets and instruments – Fundamental analysis of stocks – Technical analysis and chart patterns – Candlestick analysis – Portfolio construction and diversification – Investment performance measures – Beta, Alpha, and Sharpe Ratio – Mutual fund and ETF analytics – Basics of algorithmic trading.

Tutorial 2 : Technical chart analysis using live market data – Portfolio risk-return analysis – Stock valuation and

recommendation reports.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Modelling and Forecasting Analytics: Introduction to financial modelling – Revenue and cost forecasting – Budgeting and financial planning models – Forecasting using time series models – Regression models for financial decisions – Scenario and sensitivity analysis – Cash flow forecasting techniques – Business valuation models – Startup and project financial analytics – Applications of financial forecasting in business decisions.

Tutorial 3: Preparation of financial forecasting models – Budgeting and variance analysis – Business valuation using financial data – Forecasting sales and profitability trends.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Predictive, Credit and Risk Analytics: Introduction to predictive analytics in finance – Machine learning applications in financial analytics – Credit analysis and credit scoring techniques – Financial risk analysis and risk measurement – Credit risk and market risk analytics – Loan default prediction models – Fraud detection analytics – Value at Risk (VaR) techniques – Applications of AI in financial risk management.

Tutorial 4: Credit risk assessment using financial datasets – Predictive modelling using regression techniques – Portfolio risk analysis – Fraud detection case analysis.

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Emerging trends in financial analytics: Big data analytics in financial decision-making – Behavioural finance analytics – Real-time financial data analytics – Alternative data analytics in financial markets – Cloud-based financial analytics platforms – ESG and sustainability analytics – Automation and intelligent financial reporting – Ethical issues and data privacy in financial analytics – Future scope and career opportunities in financial analytics.

Tutorial 5: Analysis of real-time financial datasets – ESG performance analysis of companies – Development of interactive financial reports – Case studies on emerging financial analytics applications.

Prescribed Texts:

1. Chandra, P. (2021). Financial management: Theory and practice (10th ed.). McGraw Hill Education. ISBN: 9789353166526.
2. Hull, J. C. (2018). Risk management and financial institutions (5th ed.). Wiley Publications. ISBN: 9781119448112.
3. James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). An introduction to statistical learning: With applications in R (2nd ed.). Springer Publications. ISBN: 9781071614174.
4. McKinney, W. (2022). Python for data analysis: Data wrangling with pandas, NumPy, and Jupyter (3rd ed.). O'Reilly Media. ISBN: 9781098104030.

References:

1. Tsay, R. S. (2010). *Analysis of financial time series* (3rd ed.). Wiley Publications. ISBN: 9780470414354.
2. Jorion, P. (2007). *Value at risk: The new benchmark for managing financial risk* (3rd ed.). McGraw Hill Education. ISBN: 9780071464956.
3. Chan, E. P. (2013). *Algorithmic trading: Winning strategies and their rationale* (2nd ed.). Wiley Publications. ISBN: 9781118460146.
4. Han, J., Kamber, M., & Pei, J. (2011). *Data mining: Concepts and techniques* (3rd ed.). Morgan Kaufmann Publishers. ISBN: 9780123814791.

Suggested Certifications / Value Additions:

1. Advanced Financial Analytics (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc25_mg01/preview
2. Practitioners Course in Descriptive, Predictive and Prescriptive Analytics (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc21_mg86/preview
3. Managing My Investments (OpenLearn / The Open University): <https://www.open.edu/openlearn/money-business/managing-my-investments>
4. Fundamental Concepts of Financial Analysis (Alison): <https://alison.com/course/fundamental-concepts-of-financial-analysis>

II. Strategic Finance and Investment Management

Course Code : MCO_16F Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Investment Analysis and Portfolio Management
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Credit Distribution:

Lecture	Tutorial	Practical
2 (30 Hours)	1 (15 Hours)	1 (30 Hours)

Course Objectives:

1. To provide an understanding of fundamental concepts, theories, and practices of investment analysis and portfolio management.
2. To develop analytical skills for evaluating securities using fundamental analysis, technical analysis, and valuation models.
3. To enable students to apply capital market theories and risk-return models in investment decision-making.
4. To familiarize students with portfolio evaluation, forecasting techniques, and behavioral aspects of investment management.
5. To equip students with practical knowledge of portfolio revision strategies, international investing, and the use of analytical tools for financial analysis.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Understand the concepts, theories, and principles of investment analysis, security markets, and portfolio management.
2. **CO2:** Explain fundamental analysis, technical analysis, and valuation models for evaluating shares and bonds.
3. **CO3:** Apply risk-return relationships using Capital Asset Pricing Model (CAPM), Arbitrage Pricing Theory (APT), and portfolio performance measures.
4. **CO4:** Evaluate portfolio performance and apply forecasting and behavioral finance techniques in investment decision-making.
5. **CO5:** Develop portfolio revision strategies and assess international investment opportunities and foreign exchange risks using analytical tools and financial data.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓		✓			✓
CO2 Explain & interpret	✓	✓		✓		✓	✓		✓
CO3 Apply Models	✓		✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓		✓
CO5 Research & create	✓		✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Fundamental Analysis, Technical Analysis & EMH: Fundamental Analysis: Meaning – Economy Analysis – Economic Forecasting – Forecasting Techniques – Industry Analysis – Industry Life Cycle – Company Analysis – Financial Statements – Analysis of Financial Statements. Technical Analysis: Meaning – Dow Theory – Basic Principles of Technical Analysis – Trends and Trend Reversal – Eliot Wave Theory – Mathematical Indicators – Market Indicators. EMH & Behavioral Analysis: Random Walk Theory – Efficient Market Hypothesis – Forms of Market Efficiency – Tests of Efficient Market Hypothesis.

Tutorial 1: Discussion on economic forecasting methods and industry analysis techniques used in investment decisions. Analysis and interpretation of company financial statements and market trends. Case study on Efficient Market Hypothesis and investor behavior in stock markets.

Lab 1: Perform financial statement analysis using spreadsheet tools. Create trend charts and identify market patterns using historical stock data. Calculate and interpret technical indicators using Excel

Lab 2: Analyze market indices and price movement patterns. Conduct EMH testing using stock market datasets. Prepare an analytical report on company and market performance.

Unit-II: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Share Valuation & Bond Valuation: Concept of Present Value – Share Valuation Model – One Year Holding Period – Multiple Year Holding Period – Constant Growth Model – Multiple Growth Model – Multiplier Approach to Share Valuation. Bond Valuation: Bond Returns – Coupon Rate – Current Yield – Spot Interest Rate – Yield to Maturity – Yield to Call – Bond Prices – Bond Risks – Bond Duration (Theory and Problems).

Tutorial 2: Problem solving on present value and share valuation models. Numerical exercises on bond valuation and yield calculations. Discussion on bond risks, duration, and investment decisions.

Lab 3: Calculate share valuation using spreadsheet applications. Compute bond prices, coupon rates, and current yield using Excel. Perform Yield to Maturity and Yield to Call calculations.

Lab 4: Analyze bond duration and interest rate sensitivity. Compare valuation models using financial datasets. Prepare valuation reports for shares and bonds.

Unit-III: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Capital Market Theory: Assumptions – Capital Asset Pricing Model – Capital Market Line – Security Market Line – SML Vs. CML – Pricing of Securities with CAPM – Limitation of CAPM. Arbitrage Pricing Theory: Law of One Price – Assumptions – Arbitrage Pricing for One Risk Factor – Two Factor Arbitrage Pricing – Multiple Arbitrage Pricing – Limitations of APT (Theory and Problems).

Tutorial 3: Numerical problems on CAPM and security pricing. Comparative discussion on Capital Market Line and Security Market Line. Problem solving on Arbitrage Pricing Theory models.

Lab 5: Calculate beta values using market return data. Apply CAPM for security valuation using spreadsheet tools. Develop graphical representation of SML and CML.

Lab 6: Compute expected portfolio returns using CAPM. Perform factor analysis for Arbitrage Pricing Theory. Prepare analytical reports on capital market theories.

Unit-IV: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Portfolio Performance Evaluation: Meaning of Portfolio Evaluation – Measuring Portfolio Return – Risk-Adjusted Returns – Sharpe Ratio – Treynor Ratio – Differential Return. Forecasting Portfolio Performance: Chaotic Theory – Artificial Neural Networks – Fuzzy Theory. Behavioral Models: Prospect Theory – Heuristic Theory (Theory and Problems).

Tutorial 4: Numerical exercises on portfolio return and risk-adjusted measures. Discussion on behavioral finance theories and investor psychology. Case analysis on portfolio performance forecasting techniques.

Lab 7: Calculate portfolio returns using spreadsheet applications. Evaluate portfolio performance using Sharpe and Treynor ratios. Compare portfolio performance under different market conditions.

Lab 8: Demonstrate forecasting techniques using Artificial Neural Networks. Conduct behavioral finance simulation exercises. Prepare a portfolio performance evaluation report.

Unit-V: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours, Practical 6 Hours]

Portfolio Revision: Meaning of Portfolio Revision – Constraints in Portfolio Revision Strategies – Formula Plan – Constant Rupee Value Plan – Constant Ratio Plan – Dollar Cost Averaging. International Investing: Benefits and Risk of Global Investing – Factors Influencing International Investing – Foreign Exchange Risk (Theory and Problems).

Tutorial 5: Numerical exercises on portfolio revision strategies and formula plans. Discussion on global investment opportunities and associated risks. Case study on foreign exchange risk management in international investing.

Lab 9: Simulate portfolio revision strategies using spreadsheet tools. Analyze Dollar Cost Averaging and Constant Ratio Plans. Perform international portfolio diversification analysis.

Lab 10: Calculate and interpret foreign exchange risk exposure. Compare global investment market performance using financial datasets. Prepare a comprehensive investment strategy report.

Prescribed Texts:

1. Chandra, P. (2022). *Investment analysis and portfolio management* (6th ed.). McGraw Hill Education India. ISBN: 9789355324030.
2. Bodie, Z., Kane, A., & Marcus, A. J. (2021). *Investments* (12th ed.). McGraw-Hill Education. ISBN: 9781260772166.
3. Reilly, F. K., & Brown, K. C. (2019). *Investment analysis and portfolio management* (11th ed.). Cengage Learning. ISBN: 9780357434956.
4. Elton, E. J., Gruber, M. J., Brown, S. J., & Goetzmann, W. N. (2014). *Modern portfolio theory and investment analysis* (9th ed.). Wiley India. ISBN: 9788126548491.

References:

1. Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications. ISBN: 9781071817940.
2. Cooper, D. R., & Schindler, P. S. (2024). *Business research methods* (15th ed.). McGraw-Hill Education. ISBN: 9781266840548.
3. Sekaran, U., & Bougie, R. (2024). *Research methods for business: A skill-building approach* (9th ed.). Wiley India. ISBN: 9781394268047.

Suggested Certifications / Value Additions:

1. Security Analysis and Portfolio Management (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc25_mg77/preview
2. Behavioral Finance (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc25_mg07/preview
3. Investment Risk and Reward (OpenLearn / The Open University): <https://www.open.edu/openlearn/money-business/investment-risk-and-reward>
4. Fundamental Concepts of Financial Analysis (Alison): <https://alison.com/course/fundamental-concepts-of-financial-analysis>
5. Trading Essentials (Alison): <https://alison.com/course/trading-essentials>

Course Code : MCO_17 F Course Type : Core No. of Credits : 4.00 No. of Hours : 60	Course Title Mergers, Acquisitions and Corporate Restructuring
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

1. Understand the core theories, strategic motives, and regulatory frameworks (Companies Act, SEBI, Competition Act) governing corporate mergers, acquisitions, and restructurings in India.
2. Analyze the strategic M&A lifecycle, including the due diligence process, financial sourcing options, and alternative business valuation methodologies.
3. Execute complex accounting procedures for business combinations by applying and contrasting AS 14 and Ind AS 103 standards for transferor and transferee entities.
4. Evaluate corporate wealth and deal viability through quantitative financial tools, including free cash flows, swap ratios, synergy measurements, and sensitivity analysis.
5. Formulate strategic restructuring frameworks using advanced mechanisms like divestitures, spin-offs, cross-border strategies, and the Insolvency and Bankruptcy Code (IBC).

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Evaluate the strategic motives, operational drivers, and regulatory compliance requirements of corporate mergers under the Companies Act 2013, SEBI Takeover Code, and Competition Act.
2. **CO2:** Formulate asset-based, market-based, and income-based business valuation models to determine fair exchange (swap) ratios and structure merger transaction financing.
3. **CO3:** Construct accounting treatments and compute purchase consideration under AS 14 and Ind AS 103 frameworks for mergers and acquisitions.
4. **CO4:** Perform quantitative evaluations of corporate wealth by applying FCFF, FCFE, EVA, sensitivity analysis, and slump sale tax valuation techniques.
5. **CO5:** Synthesize corporate restructuring strategies such as spin-offs, LBOs, joint ventures, and restructuring mechanisms within the statutory framework of FEMA and IBC.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Evaluate	✓	✓	–	✓	–	–	–	✓	✓
CO2 Formulate	✓	✓	✓	✓	✓	–	–	–	✓
CO3 Construct	✓	✓	✓	✓	✓	–	–	–	✓
CO4 Perform	✓	✓	✓	✓	✓	✓	–	–	✓
CO5 Synthesize	✓	✓	✓	✓	✓	✓	✓	–	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Introduction to Mergers and Acquisitions and Legal, Regulatory Framework of M&A: Mergers and Acquisitions- Meaning-Types of mergers–Merger Motives-Theories of Mergers, Reasons for failures of M & A, Synergy-types of synergy–value creation in M&A. Provisions of Companies Act 2013, SEBI Takeover Code 2011, Provisions of Competition Act 2002.

Tutorial 1: SEBI Takeover Trigger Audit- Discussion

Tutorial 2: Anti-Trust Compliance Reporting- Seminar

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

The M&A Process Acquisition and Due diligence process: Methods of payment and financing options in M&A. Merger as a capital budgeting-Business valuation approaches-asset based, market based and income-based approaches-Exchange Ratio (Swap Ratio) Methods of determining the exchange rate.

Tutorial 3: Swap Ratio Determination- A Case Study

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Legal & Conceptual Framework: Accounting Standard 14 (AS 14) for non-Ind AS companies and Indian Accounting Standard 103 (Ind AS 103) on Business Combinations for listed/large entities. Types of Amalgamation: Distinguishing between Amalgamation in the Nature of Merger vs. Amalgamation in the Nature of Purchase. Purchase Consideration and its computation methods. Accounting treatment as per AS 14, Accounting Treatment in the Books of Transferor Company, Accounting Treatment in the Books of Transferee Company, Accounting Standards and Advanced Issues.

Tutorial 4: Purchase Consideration (PC) Computation- Case Study

Tutorial 5: Accounting treatment in the books of transferor company- Case Study

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Merger Valuation : Cash Flow & Value Creation (with Numericals): Valuation using Free Cash Flows (FCFF/FCFE) and measuring corporate wealth creation through Economic Value Added (EVA). Risk & Deal Testing (with Numericals): Performing Sensitivity Analysis to test deal viability against changing growth rates, costs, and market margins. Exchange & Synergy Mechanics (with Numericals): Determining the fair share Swap Ratio and calculating the financial worth of operational and tax synergies. Transaction Structures & Slump Sales: Valuing business transfers via Slump Sales under Indian Tax laws, de-mergers, and itemized asset sales. Cost-Benefit Analysis: Evaluating whether the total financial gains and future savings of the merger justify the acquisition premium paid.

Tutorial 6: The Cross-Border M&A Valuation & Swap Ratio Challenge- Presentation

Tutorial 7: The "Cookie Company" Merger (Synergies & Swap Ratios)- Presentation

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Meaning, concept, objectives, and significance of corporate restructuring: Need and importance of restructuring in the Indian corporate environment; types of restructuring – financial restructuring, operational restructuring, organizational restructuring, and strategic restructuring. Forms of corporate restructuring – sell-off, spin-off, divestitures, demerger, Equity Carve Out (ECO), Leveraged Buy-Outs (LBO), Management Buy-Outs (MBO), Master Limited Partnership (MLP), Limited Liability Partnership (LLP), joint ventures, and cross-border mergers and acquisitions. Legal and regulatory framework governing restructuring in India – Companies Act, 2013, SEBI Regulations, Competition Act, FEMA provisions, and Insolvency and Bankruptcy Code (IBC), 2016. Benefits, limitations, challenges, and strategic implications of corporate restructuring. Case studies and recent trends in corporate restructuring practices in India.

Tutorial 8: The Regulatory Cross-Border & Insolvency Audit- Case Analysis.

Tutorial 9: Financial Modeling- Case Analysis.

Prescribed Texts:

1. Chandra, P. (2019). *Financial management: Theory and practice* (10th ed.). McGraw Hill Education.
2. Krishnamurti, C., & Vishwanath, S. R. (2018). *Mergers, acquisitions and corporate restructuring: Text and cases* (Revised ed.). Sage Publications India Pvt. Ltd.
3. Das, B., Rakshit, D., & Jena, S. K. (2024). *Merger, acquisition and corporate restructuring*. Himalaya Publishing House.
4. The Institute of Company Secretaries of India. (2014). *Corporate restructuring, valuation and insolvency (Module 1, Paper 3)*. ICSI

References:

1. Krishnamurti, C. and Vishwanath, S. R., *Mergers, Acquisitions and Corporate Restructuring*, SAGE Publications.
2. Damodaran, A., *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, Wiley Financial Series.

Suggested Certifications / Value Additions:

- <https://alison.com/course/business-mergers-and-acquisitions-for-beginners-> Online Course
- Mergers, Acquisitions and Corporate Restructuring: <https://nptel.ac.in/courses/110105165>

Course Code : MCO_18 F Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title FINANCIAL DERIVATIVES AND RISK MANAGEMENT
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)		1 (30 Hours)

Course Objectives:

1. To familiarize students with the fundamental concepts, types, and operational mechanics of financial derivatives markets in India and globally.
2. To enable students to understand the pricing mechanisms of forward and futures contracts and develop hedging skills using excel applications.
3. To equip students with analytical tools to evaluate options contracts, pricing models (Binomial and Black-Scholes), and Option Greeks for financial decision-making.
4. To impart strategic knowledge on the valuation, structures, and economic motives behind Interest Rate, Currency, and Equity Swaps.
5. To educate students on contemporary risk measurement techniques, including volatility models (GARCH) and Value at Risk (VaR) using historical and Monte Carlo simulations.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. CO1: Explain the concepts, types, uses, evolution, and market structure of financial derivatives, including derivative trading practices in India through NSE, BSE, and equity derivatives.
2. CO2: Analyze futures pricing theories and apply hedging concepts, hedge ratio calculations, and risk management techniques to simple derivative problems.
3. CO3: Analyze the concepts, valuation, pricing models, and pay-off structures of options contracts for financial decision-making.
4. CO4: Evaluate swap valuation concepts and apply pricing and risk management techniques to solve simple swap-related problems.
5. CO5: Compute and Assess Value at Risk (VaR) using different methods and apply them to simple financial risk measurement problems.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Explain	✓	✓	–	✓	–	–	–	✓	✓
CO2 Analyze	✓	✓	✓	✓	✓	–	✓	–	✓
CO3 Analyze	✓	✓	✓	✓	✓	–	✓	✓	✓
CO4 Evaluate	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5 Compute & Assess	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Financial Derivatives: Meaning - Definition - Features - Types - Uses - History of Derivatives Markets - Critiques & Myths. Financial Derivatives Markets in India and Globally: Need – Evolution – Recommendations of L.C. Gupta Committee – Equity Derivatives – Categories of Derivatives Traded in India – Derivatives Trading at NSE / BSE – Comparison with Global Exchanges (CME, Eurex) – Market Integrity & Ethics in Trading: Insider Trading Regulations, Market Manipulation, and SEBI Guidelines. Eligibility of Stocks – Emerging Structure of Derivatives

Markets in India.

Lab 1: Identify the markets segment wise – Equities, Commodities, Currencies and eligible stocks for trading in derivatives.

Lab 2: Growth of derivative markets in India by using excel.

Unit-II: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Forwards and Future Contracts: Meaning – Features – Forward Contract Vs. Spot Contract – Forward Contracts Vs. Futures Contracts – Working of Forward Contracts – Classification of Forward Contracts – Advantages and Disadvantages of Forward Contracts. Futures Contracts: Meaning – Features – Types – Trading Mechanism – Theories of Futures Prices: Basic Concepts in Futures Pricing – Theories: the cost-of-carry approach – the expectation approach – the standard backwardation approach – the CAPM approach – Hedging – the perfect hedging model – the essential long and short hedges – cross hedging – basis risk and hedging – hedging effectiveness – hedge ratio (Theory and Simple problems).

Lab 3: Calculation of Forward prices using historical values by using excel.

Lab 4: Calculation of Future prices using historical values by using excel.

Unit-III: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Options contracts, Pricing Models and Trading strategies: Meaning – Types – Options Terminology – Value of an Option: Intrinsic Value – Time Value – Option Positions – Pay-off Profiles. Options Pricing and Greeks: Pricing: Determinants – Models: Binomial Option Pricing Model – Black-Scholes Option Pricing Model – Option Greeks: Delta – Theta – Gamma – Rho – Vega (Theory and Simple Problems).

Lab 5: Identification of option premium on various underlying instruments.

Lab 6: Calculation of option prices using historical values by using excel.

Unit-IV: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Swaps Basics: Meaning - Features - Advantages - Disadvantages - The Swaps Markets – Types of Swaps – Economic Motives for Swaps. Pricing and Valuing Swaps: Interest Rate Swaps – Currency Swaps – Equity Swaps. International Dimensions: Applications of Swaps in Global Corporate Financing, Managing Cross-Border Exchange Rate Risks, and Sovereign Risk Mitigation (Theory and Simple Problems).

Lab 7: Team Presentation on a real-world case study of corporate swap contracts and risk management frameworks traded in India.

Lab 8: Calculation of swap contract prices using historical values by using excel.

Unit-V: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Volatility: Measures of Risk – Volatility – Exponential Weighted Moving Average – Correlation and Covariance – Garch (1,1) Model – Volatility Index – Computation of India Volatility Index. Value at Risk: Features and Concerns of the Financial Sector – Definition and Meaning of VaR – Methods of Calculating VaR – Historical Simulation – Monte Carlo Simulation – Limitations (Theory and Simple Problems).

Lab: 09 Calculating Historical Volatility

Lab: 10 Simulating asset paths, calculating VaR for a multi-asset portfolio using Excel, and submitting a joint risk management report.

Prescribed Texts:

1. Amuthan, R. Financial Derivatives. HPH.
2. Dubinsky, D. A., & Multer, T. W. Derivatives Valuation and Risk Management. Oxford University Press.
3. Chance, D. M., & Brooks, R. Derivatives and Risk Management Basics. Cengage Learning.
4. Gupta, S. L. Financial Derivatives: Theory, Concept, and Problems. PHI Learning.

References:

1. Jayanth Rama Varma: Derivatives and Risk Management, TMH.
2. John C Hull: Options, Futures and Other Derivatives, Pearson.

Suggested Certifications / Value Additions:

- <https://nptel.ac.in/courses/110107128>- Financial Derivatives & Risk Management offer by NPTEL.

Course Code : MCO_19F Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title FINANCIAL TECHNOLOGY INNOVATION AND DIGITAL FINANCE
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Credit Distribution:

Lecture	Tutorial	Practical
2 (30 Hours)	1 (15 Hours)	1 (30 Hours)

Course Objectives:

1. Explain the evolution, ecosystem, business models, and regulatory framework of FinTech and digital financial services, including digital payments, blockchain, and central bank digital currencies.
2. Analyze emerging financial technologies and alternative finance models such as cryptocurrencies, crowdfunding, P2P lending, RegTech, and AI-driven compliance systems in the digital economy.
3. Apply data analytics, artificial intelligence, and digital governance concepts to solve contemporary challenges and develop innovative applications in financial technology.

Course Outcomes (COs):

By the end of the course, students will be able to;

- **CO1:** Describe the evolution of FinTech, digital financial services, and the overall FinTech ecosystem including digital financial infrastructure.
- **CO2:** Analyze blockchain technology, cryptocurrencies, digital payment systems, and central bank digital currencies in the context of modern financial services.
- **CO3:** Evaluate alternative finance models such as crowdfunding, peer-to-peer lending, and digital lending platforms for businesses and consumers.
- **CO4:** Examine RegTech frameworks, AI-driven compliance systems, fraud detection mechanisms, and regulatory practices in digital finance.
- **CO5:** Apply data analytics, artificial intelligence, and digital governance principles to develop and assess FinTech solutions and applications.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓		✓			✓
CO2 Explain & interpret	✓	✓		✓		✓			✓
CO3 Apply Models	✓		✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓		✓
CO5 Research & create	✓		✓	✓	✓	✓	✓		✓

Course Outline:

Unit-I: 15 Hours [Lecture 6 Hours, Tutorial Hours 3 Lab 6 Hours]

Foundations of FinTech and Digital Financial Ecosystem: Evolution of FinTech and Digital Transformation in Financial Services, FinTech Ecosystem: Banks, NBFCs, Startups, BigTech, InsurTech, WealthTech , Digital Financial Infrastructure in Emerging Economies, Open Banking, API Banking, Embedded Finance , Financial Inclusion through FinTech, Global FinTech Trends and Industry Opportunities, Challenges in Digital Financial

Services

Activity Session (Tutorial) : Case Study Analysis on successful FinTech startups, Comparative study of traditional banking vs digital banking, Discussion on financial inclusion initiatives in India

Lab 1: Exploration of UPI-based payment applications, Demonstration of API-enabled banking platforms

Lab 2: Industry mapping exercise of Indian FinTech ecosystem, Preparation of FinTech business model canvas

Unit-II: 16 Hours [Lecture 7 Hours, Tutorial 3 Hours Lab 6 Hours]

Blockchain, Cryptocurrencies and Digital Payments: Fundamentals of Blockchain Technology, Types of Blockchain: Public, Private, Consortium, Cryptocurrency Ecosystem and Tokenization, Crypto Exchanges and Wallets, Digital Payment Systems: UPI, IMPS, RTGS, NEFT, SWIFT, Central Bank Digital Currency (CBDC): Wholesale and Retail, Legal, Ethical, and Regulatory Issues in Crypto Assets, Cybersecurity Risks in Digital Payments

Activity Session (Tutorial): Debate on Cryptocurrency Regulation, Analysis of RBI Digital Rupee initiatives, Case discussions on blockchain adoption in finance.

Lab 1: Simulation of blockchain transaction flow, Digital wallet creation and payment simulation

Lab 2: Hands-on demonstration of crypto exchange interfaces, Comparative analysis of payment systems using live banking portals

Unit-III: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours Lab 6 Hours]

Digital Finance and Alternative Financing Models: Evolution of Digital Finance, FinTech Innovations in Lending and Investment, Crowdfunding Models: Donation, Reward, Debt, Equity, Peer-to-Peer (P2P) Lending Platforms, Buy Now Pay Later (BNPL) Models, Robo-Advisory and Digital Wealth Management, InsurTech and Digital Insurance Models, Risks and Sustainability of Alternative Finance

Activity Session (Tutorial) : Evaluation of crowdfunding campaigns, Case analysis of P2P lending platforms, Group discussions on FinTech business innovation models

Lab 1: Analysis of online crowdfunding platforms, Preparation of risk-return analysis for digital lending.

Lab 2 : Demonstration of robo-advisory tools, Mini-project on digital finance product design.

Unit-IV: 14 Hours [Lecture 5 Hours, Tutorial 3 Hours, Lab 6 Hours]

RegTech, Compliance and AI-driven Financial Regulation: Introduction to RegTech and SupTech, Evolution of Financial Regulations in Digital Era, AI and Machine Learning in Compliance Monitoring, Fraud Detection and Risk Analytics, Regulatory Sandboxes and Innovation Hubs, KYC, AML, and Digital Compliance Systems, Smart Contracts and Automated Compliance, Ethical and Governance Issues in AI-driven Finance.

Activity Session (Tutorial): Review of global FinTech regulatory frameworks, Case studies on fraud detection systems, Discussion on AI ethics and governance.

Lab 1: Demonstration of e-KYC verification systems, AI-based fraud detection using sample datasets

Lab 2 : Compliance workflow mapping exercises, Regulatory sandbox simulation activities.

Unit-V: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours Lab 6 Hours]

Data Analytics, AI and Future of FinTech: Role of Data in Financial Services, Financial Data Analytics and Business Intelligence, Big Data Applications in Banking and Finance, AI Applications in Credit Scoring and Risk Assessment, Data Privacy and Protection Regulations (GDPR, DPDP Act), Digital Identity and Biometric Authentication, Explainable AI (XAI) and Responsible AI, Future Trends: Web3, DeFi, Metaverse Finance, Green FinTech.

Activity Session (Tutorial): Analysis of AI use cases in banking, Review of data privacy breach cases, Seminar presentations on emerging FinTech trends.

Lab 1: Basic financial analytics using spreadsheets or Power BI, Data visualization exercises for financial datasets.

Lab 2: AI-enabled credit scoring demonstrations, Mini-project using financial datasets for predictive analysis

Prescribed Texts:

1. Chishti, S., & Barberis, J. (2016). *The FINTECH book: The financial technology handbook for investors, entrepreneurs and visionaries* (1st ed.). John Wiley & Sons.
- Lynn, T., Mooney, J. G., Rosati, P., & Cummins, M. (2018). *Disrupting finance: FinTech and strategy in*

the 21st century (1st ed.). Palgrave Macmillan.

2. Rubini, A. (2018). *Fintech in a flash: Financial technology made easy* (3rd ed.). Zaccheus Entertainment.

References:

1. Nicoletti, B. (2018). *The future of FinTech: Integrating finance and technology in financial services*. Palgrave Macmillan.
2. Rafay, A. (2019). *FinTech as a disruptive technology for financial institutions*. IGI Global.

Suggested Certifications / Value Additions:

1. **Microsoft Excel – Financial Analysis and Dashboards**
<http://www.simplilearn.com/excel-for-beginners-free-course-skillup>
2. **Power BI – Financial Analytics and Visualization**
<http://www.mygreatlearning.com/academy/learn-for-free/courses/data-visualization-with-power-bi>
3. **Jupyter Notebook – Python for Financial Analytics**
<http://www.coursera.org/learn/python-data-analysis>

Free Open-Source Websites/Platforms – HTTP Link Format

1. Kaggle – Financial Datasets and AI/ML Tutorials
<http://www.kaggle.com/learn>
2. Google Colab – Free Cloud-Based Python Environment
<http://colab.research.google.com>
3. Investopedia Simulator – Virtual Trading Platform
<http://www.investopedia.com/simulator>
4. Ethereum Developer Resources – Blockchain Learning
<http://ethereum.org/en/developers>
5. RBI Digital Payments Portal – Indian Digital Payments Learning Resource
<http://www.rbi.org.in/Scripts/DigitalPayments.aspx>
6. GitHub Open-Source Projects – FinTech and Blockchain Repositories
<http://github.com/topics/fintech>

Course Code : MCO_20F

Course Type : **Core**

No. of Credits : **4.00**

No. of Hours : **75**

INTERNATIONAL FINANCE MANAGEMENT

Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)		1 (30 Hours)

Course Objectives:

1. To familiarize students with the fundamental concepts of international financial management, the dynamics of the International Monetary System, and the accounting structure of the Balance of Payments.
2. To enable students to understand the operational mechanisms of spot and forward foreign exchange markets and develop skills to calculate exchange rate determinations and arbitrage opportunities.
3. To equip students with the analytical tools required to measure different types of foreign exchange exposure and design effective hedging strategies to mitigate currency risk.
4. To impart knowledge on the strategic motivations behind Foreign Direct Investment and the application of capital budgeting techniques to evaluate multi-currency cross-border investment projects.
5. To educate students on the changing structure of international financial markets and the features of various Euro instruments and Euro issues used for global fundraising.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Analyze the operational differences between domestic and international financial management, the structural evolution of the International Monetary System, and the accounting principles governing debit and credit entries in a Balance of Payments statement.
2. **CO2:** Evaluate the dynamics of spot and forward foreign exchange markets by analysing the roles of major participants and calculating exchange rate determinations, arbitrage opportunities, and premiums or discounts.
3. **CO3:** Formulate strategic hedging plans for a multinational corporation by measuring and distinguishing between transaction, operating, and translation foreign exchange exposures.
4. **CO4:** Appraise cross border investment decisions by evaluating the strategic costs and benefits of Foreign Direct Investment and applying discounting and non-discounting capital budgeting techniques to multi-currency cash flows and costs of capital.
5. **CO5:** Formulate and evaluate an optimal global fundraising strategy for a multinational corporation by analyzing the risk–return profiles of various international financial channels, Euro instruments, and Euro issues such as ADRs and GDRs.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Analyze & Explain	✓	✓	–	✓	–	–	–	✓	✓
CO2 Evaluate & Analyze	✓	✓	–	✓	–	–	–	✓	✓
CO3 Formulate & Measure	✓	✓	✓	✓	✓	–	✓	✓	✓
CO4 Appraise & Evaluate	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5 Formulate, Evaluate & Analyze	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Introduction: An Overview of International Financial Management: Meaning – Features of International Finance – Scope of International Finance – International Financial Management and Domestic Financial Management – Factors Influencing Growth of International Finance – International Monetary System. Balance of Payments Accounting: Accounting Principles – Debit and Credit Entries – Balance of Payments Statement.

Lab 1: Computation of Balance of Payments Using Excel.

Lab 2: Determination of Current account Deficit.

Unit-II: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Foreign Exchange Market: Features – Major Participants – Spot Market: Features, arbitrage, speculation – Forward Market: Features, Arbitrage, Hedging, Speculation, Swapping. Exchange Rate Mechanism: Exchange Rate Quotations – Nominal, Real & Effective Exchange Rates – Exchange Rate Determination in Spot Market – Exchange Rate Determination in Forward Market (Theory and Problems).

Lab 3: The RBI-FEDIAL Cross-Rate & Arbitrage Challenge.

Lab 4: Balance sheet Analysis about implications of exchange rates on company financials.

Unit-III: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Foreign Exchange Exposure: Measurement of Foreign Exchange Exposure: Meaning & Relevance of Foreign Exchange Exposure – Classification of Foreign Exchange Exposure: Transaction Exposure, Operating Exposure & Accounting Exposure. Management of Foreign Exchange Exposure: Need – Hedging of Transaction Exposure – Hedging of Real Operating Exposure – Management of Accounting Exposure (Theory and Problems).

Lab 5: The "Three Exposures" Forensic Audit – Balance sheet Reading

Lab 6: The "Treasury Boardroom" Hedging Showdown

Unit-IV: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Foreign Direct Investment: Theories of FDI – Costs and Benefits of FDI – Strategy for FDI – Control of MNCs. International Capital Budgeting: Evaluation Criteria: Non-discounting Methods and Discounting Methods – Computation of Cash Flow – Cost of Capital: Average Cost of Capital – Cost of Debt – Cost of Equity Shares – Cost of Retained Earnings (Theory and Problems).

Lab 7: The Cross-Border FDI Strategy Matrix & Country Risk Model.

Lab 8: Assessment of FDI flows and its impact on the economy by using statistical tools.

Unit-V: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

International Financial Markets: Channels for International Flow of Funds – Changing Structure of the International Financial Market – Selection of Sources and Forms of Funds. International Financial Instruments: Euro Credits: Revolving Credit, Term Credit – Euro Bonds: Straight Bonds, Convertible Bonds, Currency Optional Bonds, FRNs – Euro Currency Deposits: Call Deposits, Term Deposits, Certificates of Deposits – Euro Notes: Commercial paper, NIF, Medium Term notes – Euro Issues: FCCB, GDR, ADR (Theory and Problems).

Lab 9: Assessment of growth in ADR and GDR by using statistical tools.

Lab 10: Identification of developments in money market instruments.

Prescribed Texts:

1. Bharati V Pathak: Indian Financial Management, Pearson.
2. Clark: International Finance, 2e Thomson.
3. Jeevenandam, Foreign Trade Finance and Risk Management, Sultan Chand.
4. Jeff Madura: International Financial Management, Cengage.

References:

1. Joseph Anbarasu: Global Financial Management, Ane Books Pvt. Ltd.
2. Kevin S: Fundamentals of International Financial Management, PHI.
3. Madhu Vij: International Financial Management, Excel Books.
4. Shapiro: Multinational Financial Management PHI.

Suggested Certifications / Value Additions:

1. International Financial Management (Swayam-NPTEL):
https://onlinecourses.nptel.ac.in/noc24_mg53/preview
2. Global Trends in International Trade and Finance (Swayam-NPTEL):
https://onlinecourses.nptel.ac.in/noc25_hs71/preview
3. Understanding National Accounts: Balance of Payments (OpenLearn / The Open University):
<https://www.open.edu/openlearn/money-business/understanding-national-accounts>
4. International Business and Trade (Alison): <https://alison.com/course/international-business-and-trade>
5. Financial Risk Management and Analysis Training Course (Alison):
<https://alison.com/course/financial-management-for-managers-risk-analysis>

III. Financial Services Management

Course Code : MCO_16M Course Type : Elective No. of Credits : 4 No. of Hours : 60	Course Title Financial Services Marketing
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	

Course Objectives:

1. To introduce the fundamentals of financial services marketing.
2. To understand consumer behavior in financial services.
3. To study marketing strategies in banking, insurance, and mutual funds.
4. To develop knowledge of CRM and customer retention practices.
5. To examine the impact of technology and globalization on financial services.

Course Outcomes (COs):

1. **CO1:** Understand the fundamentals of financial services marketing.
2. **CO2:** Analyze consumer behavior and marketing strategies in financial services.
3. **CO3:** Evaluate banking service marketing practices.
4. **CO4:** Assess marketing strategies in insurance and mutual funds.
5. **CO5:** Apply CRM concepts and understand the role of technology and globalization in financial services.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓					✓	✓	
CO2 Explain & interpret	✓	✓	✓				✓	✓	✓
CO3 Apply Models	✓	✓	✓			✓		✓	
CO4 Analyse & evaluate	✓		✓		✓		✓	✓	✓
CO5 Research & create	✓		✓	✓			✓	✓	✓

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Introduction to Financial Services Marketing: Concept, Types of Financial Markets in India An Overview, Characteristics of Services, Differences between goods and services, Concept of Marketing, Overview of Service Marketing Mix (7 P's), challenges faced in marketing of financial services

Tutorial 1: Case Analysis on Marketing Strategies of a Fintech Company.

Tutorial 2: Presentation highlighting marketing challenges in both sectors

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Consumers Behaviour in Services: Environmental Issues: Internal and External, Positioning Services in Competitive Market, Financial Services; Product Development, Designing Communication, Mix for Financial Services, The Marketing Mix for Financial Services, Designing and Managing Financial Services.

Tutorial 3: Advertisements Analysis

Tutorial 4: Consumer Survey Project (Survey of at least 30 respondents and analysis using charts)

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Marketing of Banking Services: Concept, Importance, Market segmentation for banks, Types of Marketing Strategy for banks, Marketing Mix, Product Mix, Promotion mix, Price Mix, People and Place Mix in Banks, Bank marketing in Rural Areas, Challenges, MIS for Banks: Concept, Importance, Attracting and Retaining bank customers; Marketing Strategy of Credit Cards, Debit Cards, Saving Accounts and Different Types of Loans, Barter Card.

Tutorial 5: An Activity on Banking Marketing Audit

Tutorial 6: Rural Banking Strategy Design - Create a marketing plan for launching banking services in a rural district.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Insurance Marketing: Concept, Importance, Marketing mix for Insurance, Market Segmentation of Insurance, Bancassurance, E-insurance, Marketing of Insurance Products Life and Non Life Products, Marketing of Pension Funds.

Mutual Funds in India and the Marketing Strategies Involved; Types of Mutual funds, market segments for mutual funds, mutual funds marketing in Indian perspective

Tutorial 7: An Activity on Mutual Fund Portfolio Analysis.

Tutorial 8: A Case Study on Insurance Product Comparison and their evaluation

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

CRM (Customer Relationship Management): Concept, components, Process of CRM, Significance, Customer relationship chain, Methods of relationship building, Customer Retention- Concept and Advantages, Customer Delight, Customer Satisfaction.

Concept of Distribution: Multiple Delivery Channels/ATM, EFT, CMS and POS. Promotion- Marketing Information & Research, Public Relations and Publicity, Image Building. Globalization and its Impact on Financial Services.

Tutorial 9: An Activity on CRM Strategy Development- Design a CRM model for:

- i. A Bank
- ii. An Insurance Company
- iii. A Mutual Fund Company

Tutorial 10: A Debate on Globalization Impact on Financial Services

Prescribed Texts:

- Desai, V. (2021). Marketing of financial services. Himalaya Publishing House.
- Khan, M. Y. (2019). Financial services (10th ed.). McGraw Hill Education.

References:

- Bhole, L. M., & Mahakud, J. (2017). *Financial institutions and markets: Structure, growth and innovations* (6th ed.). McGraw Hill Education.
- Khan, M. Y. (2019). *Financial services* (10th ed.). McGraw Hill Education.
- Pathak, B. V. (2022). *The Indian financial system: Markets, institutions and services* (6th ed.). Pearson Education..

Suggested Certifications / Value Additions:

- SWAYAM – https://onlinecourses.swayam2.ac.in/e-learning/preview/ini26_cm01
- Alison free course on Professional Personal Finance, <https://alison.com/course/becoming-a-professional-personal-finance-advisor>
- Alison free course on Fundamentals of Marketing Concepts: <https://alison.com/course/fundamentals-of-marketing-conceptss>

Course Code : MCO_17M Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Digital Marketing
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	--	1 (30 Hours)

Course Objectives:

1. To provide comprehensive understanding of digital marketing concepts, tools, platforms, and strategies used in modern business and online marketing environments.
2. To develop practical skills in website planning, social media marketing, search engine marketing, web analytics, and online advertising for effective digital communication and customer engagement.
3. To enable students to design, implement, and evaluate integrated digital marketing campaigns using content marketing, email marketing, remarketing, and performance measurement techniques.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Comprehend the concepts, importance, and components of digital marketing, including website planning, SEO, content marketing, and online customer engagement
2. **CO2:** Explain social media marketing techniques and create Facebook marketing campaigns using appropriate digital tools and strategies
3. **CO3:** Analyze and execute Google Ads campaigns, keyword strategies, PPC models, and remarketing techniques for improving online visibility and business performance
4. **CO4:** Evaluate web marketing effectiveness using analytics tools, audience targeting methods, ad performance reports, and conversion tracking mechanisms
5. **CO5:** Design comprehensive digital marketing and email marketing campaigns with effective content writing, customer engagement, and lead conversion strategies

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & Define	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO2 Explain & Interpret	✓	✓		✓		✓		✓	✓
CO3 Apply Models	✓	✓	✓	✓	✓		✓		✓
CO4 Analyse & Evaluate	✓	✓	✓	✓	✓	✓	✓		✓
CO5 Research & Create	✓		✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I: 15 Hours [Lecture 9 Hours, Practical 6 Hours]

Introduction to Marketing: Modern Marketing Management Concepts, Segmentation, Targeting, Positioning, Marketing Mix, Services Mix. **Digital Marketing Planning and Structure:** Inbound vs Outbound Marketing, Content Marketing, Understanding Traffic, Understanding Leads, Strategic Flow for Marketing Activities. WWW, Domains, buying a Domain, Website Language & Technology, Core Objective of Website and Flow, One Page Website, Strategic Design of Home Page, Strategic Design of Products & Services Page, Strategic Design of Pricing Page, Portfolio, Gallery and Contact Us Page, Call to Action (Real Engagement Happens), Designing Other

Pages, SEO Overview, Google Analytics Tracking Code, Website Auditing, Designing Word press Website.

Practical 1: Students shall prepare a digital marketing plan for a startup by identifying target market, positioning strategy, and marketing mix elements. They will design the basic structure of a business website including homepage, product pages, and call-to-action features. The activity helps students understand website planning, SEO basics, and digital marketing flow.

Unit-II:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Facebook Marketing Fundamentals: Profiles and Pages, Business Categories, Getting Assets Ready, Creating Facebook Pages, Page Info and Settings, Facebook Page Custom URL, Invite Page Likes, Featured Video, Pin Post and Highlights, Scheduling Posts, Facebook Events, Reply and Message, Facebook Insights Reports, Competitor's Facebook Page, Ban User on Facebook Page, Connect with Twitter. Facebook Ad Campaigns: Organic v/s Paid, Defining Ad Objective, Performance Matrix, Ad Components, Designing Creative Image, Facebook Ad Structure, Setting up Facebook.

Practical 2: Students shall create a mock Facebook business page for a selected product or service and develop sample promotional posts and advertisements. They will analyze page insights, competitor strategies, and audience engagement methods. The activity provides practical exposure to social media marketing and Facebook campaign management.

Unit-III:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Google AdWords: Understanding AdWords, Google Ad Types, Pricing Models, PPC Cost Formula, Ad Page Rank, Billing and Payments, AdWords User Interface, Keyword Planning, Keywords Control, Creating Ad Campaigns, Creating Text Ads, Creating Ad Groups, Bidding Strategy for CPC, Case Studies. PPC, CPM, CPA, Other Measuring Tools, Bidding Strategy on Location, Bidding Strategy on Schedule, Bidding Strategy on Devices, Conversion Tracking Code, Designing Image Ads, Creating Animated Ads, Examples on Animated Ads, Creating Video Ads, YouTube Video Promotion, Remarketing Strategies, Remarketing Rules, Remarketing Tracking Code.

Practical 3: Students shall prepare a simulated Google Ads campaign including keyword planning, text advertisements, bidding strategy, and target audience selection. They will compare PPC, CPM, and CPA models through simple case analysis and campaign measurement. The activity develops understanding of online advertising and search engine marketing practices.

Unit-IV:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Web Marketing: Ad Account, Create Ad –Targeting, Create Ad – Budgeting, Create Ad –Creative, Content and CTA, Boosting Page Posts, Page Promotion, Video Promotion, Similar Ads and Audiences, Tracking Pixels Code, Remarketing - Website Visitors, Custom Audiences -Look Alike, Custom Audience -Saved Group, Managing and Editing Ads, Ad Reports and Ad Insights, Billing and Account. Facebook Business Manager, People, Pages and Roles, Ad Accounts Configurations, Ad Agencies and Assigning, Shared Login for FB Business A/c, Power Editor, Email Targeting on Facebook, Facebook Offers.

Practical 4: Students shall design a web marketing campaign using audience targeting, budgeting, remarketing, and advertisement performance analysis techniques. They will prepare sample ad creatives and analyze ad reports and audience insights. The activity enhances practical knowledge of online ad management and digital campaign optimization.

Unit-V:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Email Marketing & Content Writing: Email Machine –The Strategy, Email Frequency, Why People Don't Buy, The Fuel –Value, Triggers in Email using 4Ps, Sequence of Email Triggers, Email Example - Topic, Intro, Product, Secondary Value, Fear, Regret, Ask for Sales, Reinforcement, Offers Announcements, Urgency, Cross Sales, Re-Engagement, Buyer vs Consumer. Email Software and Tools, Importing Email Lists, Planning Email Campaign, Email Templates and Designs, Sending HTML Email Campaigns, Web Forms Lead Importing, Integrating Landing Page Forms, Digital Marketing and International Perspective, Ethics in Digital Marketing

Practical 5: Students shall design an email marketing campaign including subject lines, promotional content, customer engagement strategies, and lead generation forms. They will prepare email templates and analyze customer response triggers and re-engagement methods. The activity develops skills in content writing, email communication, and digital customer relationship management.

Prescribed Texts:

1. Brodie, I. (n.d.). *Email persuasion: Captivate and engage your audience, build authority and generate more sales with email marketing*.
2. Rabazinski, C. (2015). *Google Adwords for beginners: A do-it-yourself guide to PPC advertising*.
3. Zimmerman, J., & Ng, D. (n.d.). *Social media marketing all-in-one for dummies*. Wiley

References:

1. Deiss, R., & Henneberry, R. (n.d.). *Digital marketing for dummies*. Wiley.
2. Dodson, I. (n.d.). *The art of digital marketing: The definitive guide to creating strategic, targeted, and measurable online campaigns*. Wiley Publishers

Suggested Certifications / Value Additions:

1. NPTEL – Marketing Analytics <https://nptel.ac.in/courses/110105153>
2. OpenLearn (The Open University) – Retail Marketing <https://www.open.edu/openlearn/money-business/retail-marketing/content-section-0>
3. Alison – Diploma in Customer Analytics and Segmentation Strategies <https://alison.com/course/diploma-in-customer-analytics-and-segmentation-strategies>

Course Code : MCO_18M Course Type : Elective III No. of Credits : 4 No. of Hours : 60	Course Title Retail Banking
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Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)	1 (15 Hours)	-

Course Objectives:

The purpose of this course is:

1. To understand the retail Banking in India and various regulations in the retail Banking domain.
2. To provide exposure to different financial services such as leasing and hire purchasing, financial evaluation.

Course Outcomes (COs):

Upon the completion of this course, the students should be able to:

1. **CO1:** Understand the concepts, structure, regulations, and functions of retail banking and merchant banking in India.
2. **CO2:** Apply concepts of financial services, leasing, and hire purchase for financing and business decision-making.
3. **CO3:** Explain and analyze factoring services, forms of factoring, and their role in working capital management.
4. **CO4:** Evaluate securitization and mortgage financing mechanisms and prepare repayment and mortgage analysis models.
5. **CO5:** Understand depository systems, brokerage services, dematerialization process, and SEBI regulations relating to securities trading.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓					✓	✓	✓
CO2 Explain & interpret	✓	✓	✓			✓			✓
CO3 Apply Models	✓	✓	✓		✓				✓
CO4 Analyse & evaluate	✓	✓	✓			✓			✓
CO5 Research & create	✓	✓		✓		✓	✓	✓	

Course Outline:

Unit-I: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Retail Banking: Nature and scope of Retail Banking- Regulation of Merchant Banking Activity - overview of current Indian Retail Banking scene - structure of Merchant Banking industry - primary Markets in India and Abroad -- professional Ethics and code of conduct - current Development.

Tutorial 1: Case Study on IPO Management – Analyze the role of merchant bankers in managing a recent IPO in India.

Tutorial 2: SEBI Regulation Review Activity – Study SEBI guidelines relating to merchant banking and prepare a summary report.

Unit-II: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Financial Services: Meaning and Definition, Role of Financial Services in a financial system. Leasing: Meaning and features. Introduction to equipment leasing: Types of Leases, Evolution of Indian Leasing Industry. Legal Aspects of Leasing: Present Legislative Framework. Hire Purchase: Concept and characteristics of Hire purchase. Difference between hire purchase and leasing.

Tutorial 1: Lease Rental Calculation Exercise – Calculate lease rentals and compare different leasing methods using numerical problems.

Tutorial 2: Industry Case Analysis – Analyze how companies use leasing and hire purchase for financing assets.

Unit-III: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Factoring: Concept, nature, and scope of Factoring - Forms of Factoring - Factoring vis-a-vis bills Discounting - Factoring vis-a-vis credit Insurance Factoring vis-a-vis Forfeiting Evaluation of a Factor - Factoring in India current Developments

Tutorial 1: Role Play Activity – Simulate interactions between factor, client, and debtor in a factoring transaction.

Tutorial 2: Business Case Study – Analyze working capital management through factoring arrangements.

Unit-IV: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Securitization / Mortgages: Meaning, nature and scope of securitization, securitization as a Funding Mechanism, securitization of Residential Real Estate - whole Loans - Mortgages - Graduated-payment.

Tutorial 1: Mortgage EMI Calculation Exercise – Prepare EMI and repayment schedules for housing loans using Excel.

Tutorial 2: Housing Finance Case Study – Analyze real estate financing and mortgage lending practices through practical cases.

Unit-V: 12 Hours [Lecture 9 Hours, Tutorial 3 Hours]

Depository & Security Brokerage: Meaning, Evolution, Merits and Demerits of Depository. Process of Dematerialization and Rematerialization. Brief description of NSDL and CDSL. Meaning of Brokerage, types of brokers. Difference between broker and jobber. SEBI Regulations relating to brokerage business in India.

Tutorial 1: Demat Process Demonstration – Study and demonstrate the process of dematerialization and rematerialization of securities.

Tutorial 2: Case Study on SEBI Regulations – Analyze SEBI regulations relating to brokerage and investor protection.

Prescribed Texts:

1. J.N. Dhonkar: A Treatise on merchant Banking, Skylark Publishing House, Delhi. 1990.
2. Gurusamy S, Merchant Banking and Financial Services, Vijay Nicole and Tata McGraw Hill, 4th Edition, 2012, New Delhi
3. Khan M Y, Financial Services, Tata McGraw Hill
4. NISM, Merchant Banking, Taxman's Publications
5. Madhu Vij and Swati Dhawan, Merchant Banking and Financial Services, McGraw Hill Education.

References:

1. Sri Ram, Handbook of Leasing & Hire purchases, ICAI Hyderabad
2. Stewart, Simon (University of Adelaide), Financial Services & Their Regulation.
3. Rose, Peter S., And Fraser, Donald R. Financial Institutions: Understanding and Managing Financial Services, Tex Business Publications
4. Kinsella, Ray, New Issues in Financial Services, Powell's Books
5. V.A. Avadhani, Marketing of Financial Services, Himalayas Publishers, Mumbai
6. Punithavathy Pandian, Financial Markets and Services, Vikas, New Delhi

7. Vasanth Desai, Financial Markets & Financial Services, Himalaya, Mumbai.

Suggested Certifications / Value Additions:

1. Financial Services (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc24_mg50/preview
2. Commercial Banking: An Indian Perspective (Swayam-NPTEL):
https://onlinecourses.nptel.ac.in/noc25_mg34/preview
3. Understanding Mortgages and Housing Finance (OpenLearn / The Open University):
<https://www.open.edu/openlearn/money-business/understanding-mortgages-housing-finance>
4. Introduction to Retail Banking Services (Alison): <https://alison.com/course/introduction-to-retail-banking-services>
5. Trading Essentials (Alison): <https://alison.com/course/trading-essentials>

Course Code : MCO_19M Course Type : Core No. of Credits : 4.00 No. of Hours : 75	Course Title Financial Technology Innovation and Digital Finance
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Credit Distribution:

Lecture	Tutorial	Practical
2 (30 Hours)	1 (15 Hours)	1 (30 Hours)

Course Objectives:

1. Explain the evolution, ecosystem, business models, and regulatory framework of FinTech and digital financial services, including digital payments, blockchain, and central bank digital currencies.
2. Analyze emerging financial technologies and alternative finance models such as cryptocurrencies, crowdfunding, P2P lending, RegTech, and AI-driven compliance systems in the digital economy.
3. Apply data analytics, artificial intelligence, and digital governance concepts to solve contemporary challenges and develop innovative applications in financial technology.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. **CO1:** Describe the evolution of FinTech, digital financial services, and the overall FinTech ecosystem including digital financial infrastructure.
2. **CO2:** Analyze blockchain technology, cryptocurrencies, digital payment systems, and central bank digital currencies in the context of modern financial services.
3. **CO3:** Evaluate alternative finance models such as crowdfunding, peer-to-peer lending, and digital lending platforms for businesses and consumers.
4. **CO4:** Examine RegTech frameworks, AI-driven compliance systems, fraud detection mechanisms, and regulatory practices in digital finance.
5. **CO5:** Apply data analytics, artificial intelligence, and digital governance principles to develop and assess FinTech solutions and applications.

COs /POs Mapping:

Cos/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Recall & define	✓	✓		✓		✓			✓
CO2 Explain & interpret	✓	✓		✓		✓			✓
CO3 Apply Models	✓		✓	✓	✓		✓		✓
CO4 Analyse & evaluate	✓	✓	✓	✓		✓	✓		✓
CO5 Research & create	✓		✓	✓	✓	✓	✓		✓

Course Outline:

Unit-I: 15 Hours [Lecture 6 Hours, Tutorial Hours 3 Lab 6 Hours]

Foundations of FinTech and Digital Financial Ecosystem: Evolution of FinTech and Digital Transformation in Financial Services, FinTech Ecosystem: Banks, NBFCs, Startups, BigTech, InsurTech, WealthTech , Digital Financial Infrastructure in Emerging Economies, Open Banking, API Banking, Embedded Finance , Financial Inclusion through FinTech, Global FinTech Trends and Industry Opportunities, Challenges in Digital Financial

Services

Activity Session (Tutorial) : Case Study Analysis on successful FinTech startups, Comparative study of traditional banking vs digital banking, Discussion on financial inclusion initiatives in India

Lab 1: Exploration of UPI-based payment applications, Demonstration of API-enabled banking platforms

Lab 2: Industry mapping exercise of Indian FinTech ecosystem, Preparation of FinTech business model canvas

Unit-II: 16 Hours [Lecture 7 Hours, Tutorial 3 Hours Lab 6 Hours]

Blockchain, Cryptocurrencies and Digital Payments: Fundamentals of Blockchain Technology, Types of Blockchain: Public, Private, Consortium, Cryptocurrency Ecosystem and Tokenization, Crypto Exchanges and Wallets, Digital Payment Systems: UPI, IMPS, RTGS, NEFT, SWIFT, Central Bank Digital Currency (CBDC): Wholesale and Retail, Legal, Ethical, and Regulatory Issues in Crypto Assets, Cybersecurity Risks in Digital Payments

Activity Session (Tutorial): Debate on Cryptocurrency Regulation, Analysis of RBI Digital Rupee initiatives, Case discussions on blockchain adoption in finance.

Lab 1: Simulation of blockchain transaction flow, Digital wallet creation and payment simulation

Lab 2: Hands-on demonstration of crypto exchange interfaces, Comparative analysis of payment systems using live banking portals

Unit-III: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours Lab 6 Hours]

Digital Finance and Alternative Financing Models: Evolution of Digital Finance, FinTech Innovations in Lending and Investment, Crowdfunding Models: Donation, Reward, Debt, Equity, Peer-to-Peer (P2P) Lending Platforms, Buy Now Pay Later (BNPL) Models, Robo-Advisory and Digital Wealth Management, InsurTech and Digital Insurance Models, Risks and Sustainability of Alternative Finance

Activity Session (Tutorial) : Evaluation of crowdfunding campaigns, Case analysis of P2P lending platforms, Group discussions on FinTech business innovation models

Lab 1: Analysis of online crowdfunding platforms, Preparation of risk-return analysis for digital lending.

Lab 2 : Demonstration of robo-advisory tools, Mini-project on digital finance product design.

Unit-IV: 14 Hours [Lecture 5 Hours, Tutorial 3 Hours, Lab 6 Hours]

RegTech, Compliance and AI-driven Financial Regulation: Introduction to RegTech and SupTech, Evolution of Financial Regulations in Digital Era, AI and Machine Learning in Compliance Monitoring, Fraud Detection and Risk Analytics, Regulatory Sandboxes and Innovation Hubs, KYC, AML, and Digital Compliance Systems, Smart Contracts and Automated Compliance, Ethical and Governance Issues in AI-driven Finance.

Activity Session (Tutorial): Review of global FinTech regulatory frameworks, Case studies on fraud detection systems, Discussion on AI ethics and governance.

Lab 1: Demonstration of e-KYC verification systems, AI-based fraud detection using sample datasets

Lab 2 : Compliance workflow mapping exercises, Regulatory sandbox simulation activities.

Unit-V: 15 Hours [Lecture 6 Hours, Tutorial 3 Hours Lab 6 Hours]

Data Analytics, AI and Future of FinTech: Role of Data in Financial Services, Financial Data Analytics and Business Intelligence, Big Data Applications in Banking and Finance, AI Applications in Credit Scoring and Risk Assessment, Data Privacy and Protection Regulations (GDPR, DPDP Act), Digital Identity and Biometric Authentication, Explainable AI (XAI) and Responsible AI, Future Trends: Web3, DeFi, Metaverse Finance, Green FinTech.

Activity Session (Tutorial): Analysis of AI use cases in banking, Review of data privacy breach cases, Seminar presentations on emerging FinTech trends.

Lab 1: Basic financial analytics using spreadsheets or Power BI, Data visualization exercises for financial datasets.

Lab 2: AI-enabled credit scoring demonstrations, Mini-project using financial datasets for predictive analysis

Prescribed Texts:

1. Chishti, S., & Barberis, J. (2016). *The FINTECH book: The financial technology handbook for investors, entrepreneurs and visionaries* (1st ed.). John Wiley & Sons.

- a. Lynn, T., Mooney, J. G., Rosati, P., & Cummins, M. (2018). *Disrupting finance: FinTech and strategy in the 21st century* (1st ed.). Palgrave Macmillan.
2. Rubini, A. (2018). *Fintech in a flash: Financial technology made easy* (3rd ed.). Zaccheus Entertainment.

References:

1. Nicoletti, B. (2018). *The future of FinTech: Integrating finance and technology in financial services*. Palgrave Macmillan.
2. Rafay, A. (2019). *FinTech as a disruptive technology for financial institutions*. IGI Global.

Suggested Software/Lab Tools:

1. **Microsoft Excel – Financial Analysis and Dashboards**
<http://www.simplilearn.com/excel-for-beginners-free-course-skillup>
2. **Power BI – Financial Analytics and Visualization**
<http://www.mygreatlearning.com/academy/learn-for-free/courses/data-visualization-with-power-bi>
3. **Jupyter Notebook – Python for Financial Analytics**
<http://www.coursera.org/learn/python-data-analysis>

Free Open-Source Websites/Platforms – HTTP Link Format

1. **Kaggle – Financial Datasets and AI/ML Tutorials**
<http://www.kaggle.com/learn>
2. **Google Colab – Free Cloud-Based Python Environment**
<http://colab.research.google.com>
3. **Investopedia Simulator – Virtual Trading Platform**
<http://www.investopedia.com/simulator>
4. **Ethereum Developer Resources – Blockchain Learning**
<http://ethereum.org/en/developers>
5. **RBI Digital Payments Portal – Indian Digital Payments Learning Resource**
<http://www.rbi.org.in/Scripts/DigitalPayments.aspx>
6. **GitHub Open-Source Projects – FinTech and Blockchain Repositories**
<http://github.com/topics/fintech>

Suggested Certifications / Value Additions:

1. FinTech In Innovation and Transformation (Swayam-NPTEL):
https://onlinecourses.nptel.ac.in/noc24_mg93/preview
2. Introduction to Blockchain Technology and Applications (Swayam-NPTEL):
https://onlinecourses.nptel.ac.in/noc26_cs01/preview
3. AI Hub: an introduction (OpenLearn / The Open University): <https://www.open.edu/openlearn/digital-computing/ai-hub>
4. Introduction to FinTech: Innovations in Financial Services (Alison): <https://alison.com/course/introduction-to-fintech-innovations-in-financial-services>
5. Understanding Blockchain and Bitcoin Cryptocurrency Systems (Alison):
<https://alison.com/course/understanding-blockchain-and-bitcoin-cryptocurrency-systems>

Course Code : MCO_20M
 Course Type : **Core**
 No. of Credits : **4.00**
 No. of Hours : **75**

Wealth Management and Financial Planning

Credit Distribution:

Lecture	Tutorial	Practical
3 (45 Hours)		1 (30 Hours)

Course Objectives:

1. To provide a comprehensive understanding of wealth management, personal financial planning, and the factors influencing individual financial well-being.
2. To develop knowledge of economic environments, financial markets, and investment avenues for effective wealth creation and accumulation.
3. To equip students with portfolio management, asset allocation, and investment analysis techniques for informed financial decision-making.
4. To enable students to formulate wealth preservation strategies through insurance planning, tax management, retirement planning, and estate planning.
5. To develop practical skills in preparing comprehensive financial plans using quantitative tools, behavioral finance concepts, and client advisory practices.

Course Outcomes (COs):

By the end of the course, students will be able to;

1. CO1: Explain the principles of wealth management, personal financial planning, and the impact of economic factors on financial decisions.
2. CO2: Analyze various investment avenues and construct diversified portfolios aligned with investor objectives and risk profiles.
3. CO3: Evaluate investment performance and apply portfolio management techniques to optimize risk-return outcomes.
4. CO4: Design wealth preservation and succession plans incorporating insurance, taxation, retirement, and estate planning strategies.
5. CO5: Develop comprehensive financial plans and apply quantitative, behavioral, and advisory tools to support effective wealth management decisions.

COs /POs Mapping:

Cos/Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1 Analyze & Explain	✓	✓	–	✓	–	–	–	✓	✓
CO2 Evaluate & Analyze	✓	✓	–	✓	–	–	–	✓	✓
CO3 Formulate & Measure	✓	✓	✓	✓	✓	–	✓	✓	✓
CO4 Appraise & Evaluate	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO5 Formulate, Evaluate & Analyze	✓	✓	✓	✓	✓	✓	✓	✓	✓

Course Outline:

Unit-I:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Personal Wealth Creation: Meaning, scope, and significance of wealth management; principles of personal financial well-being; relationship between income, savings, investment, and wealth accumulation; stages of the financial life cycle; factors influencing individual financial decisions; ethical responsibilities and professional conduct in wealth advisory services. **Economic Environment and Wealth Decisions:** Role of inflation, interest rates, and economic growth in financial planning; impact of business cycles on investment decisions; relationship between economic indicators and personal wealth; effects of currency movements and fiscal developments on financial markets; adapting financial plans to changing economic conditions.

Lab 1: Preparation of a personal balance sheet and cash flow statement using spreadsheet software.

Lab 2: Collection and interpretation of economic data (inflation, repo rate, GDP growth, and stock market indices) from RBI, NSE, and government sources and preparation of an economic outlook report.

Unit-II:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Investment Avenues and Wealth Accumulation : Overview of investment opportunities available to individuals; characteristics of equity, fixed-income securities, mutual funds, exchange-traded funds, gold, and real estate; comparison of investment alternatives based on liquidity, return potential, safety, and marketability; emerging trends in investment management **Portfolio Design and Asset Allocation:** Concept and importance of portfolio management; principles of diversification and risk reduction; asset allocation approaches for different investor profiles; strategic and dynamic allocation techniques; portfolio rebalancing methods; constructing investment portfolios aligned with financial goals and risk preferences. **Investment Analysis and Performance Evaluation:** Relationship between risk and return; measurement of investment performance; portfolio review and monitoring techniques; evaluation of investment outcomes using quantitative and qualitative parameters; behavioral influences on investment decisions; common investment mistakes and methods for improving investment discipline.

Lab 1: Comparison of investment products such as equities, mutual funds, ETFs, fixed deposits, bonds, gold, and real estate using risk-return and liquidity metrics.

Lab 2: Creation and periodic rebalancing of a model investment portfolio using historical market data and spreadsheet applications.

Unit-III:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Wealth Preservation, Tax Planning and Succession Management: Nature of financial risk and methods of risk mitigation; role of insurance in wealth protection; assessment of insurance requirements; life, health, and general insurance products; selection of appropriate insurance coverage; insurance as a component of comprehensive wealth management. **Tax-Efficient Wealth Management :** Fundamentals of personal tax planning; tax implications of savings and investment decisions; strategies for reducing tax liability within the legal framework; taxation of investment income and capital gains; integrating tax considerations into long-term wealth management and financial planning decisions. **Retirement and Estate Planning:** Importance of retirement preparedness; estimation of retirement income needs and retirement corpus; retirement income strategies and wealth distribution plans; principles of estate and succession planning; role of wills, trusts, nominations, and beneficiary designations; transfer of wealth across generations and preservation of family assets.

Lab 1: Computation of income tax liability under old and new tax regimes and preparation of tax-saving investment plans.

Lab 2: Estimation of retirement corpus and preparation of retirement cash-flow projections using financial planning software or spreadsheets.

Unit-IV:

15 Hours [Lecture 9 Hours, Practical 6 Hours]

Economic Environment and Financial Planning Process: Indian economic environment, economic policies and indicators, impact of fiscal and monetary measures on financial markets, Indian financial system and financial sector, role of regulators, economic systems and global economic forces, investment intermediaries, business cycles and their impact on investment values, approaches to economic analysis and information sources. Fundamentals of financial planning, scope and significance of financial planning, regulatory aspects of advisory services, wealth life cycle and consumer life cycle, assessment of assets, liabilities and net worth, evolution and professional practices in financial planning, preparation of comprehensive financial plans, client data collection, financial goal setting, risk tolerance assessment, analysis of insurance, retirement and investment needs, asset allocation, implementation and review of financial plans, and communication skills in financial counselling.

Lab 1: Development of a comprehensive financial plan incorporating client data, financial goals, net worth analysis, insurance needs, retirement needs, and investment recommendations.

Lab 2: Preparation of risk profiling questionnaires and determination of investor risk categories for different client profiles.

Unit-V:**15 Hours [Lecture 9 Hours, Practical 6 Hours]**

Financial Services Marketing, Quantitative Tools and Behavioral Finance: Marketing of financial products and services, customer relationship management, customer acquisition, customer experience and retention strategies, strategic and tactical marketing approaches. Time value of money concepts, present and future value calculations, annuities, compounding and discounting techniques, net present value, internal rate of return and cash flow analysis. Behavioral finance concepts, information processing and emotional biases, psychology of money, choice architecture, behavioral finance versus traditional finance, classification of investor biases, and management of client emotions and behavioral responses in financial decision-making.

Lab 1: Application of Time Value of Money techniques using Excel functions for present value, future value, annuities, loan amortization, net present value, and internal rate of return.

Lab 2: Design and administration of an investor behavior survey, compilation of responses, and analysis of behavioral biases using spreadsheet-based statistical tools.

Prescribed Texts:

1. Prasanna Chandra, *Personal Finance: A Ready Reckoner*, McGraw Hill India.
2. M. Pandurangan, *Financial Planning and Wealth Management*, Himalaya Publishing House.

References:

1. Suresh Sadagopan, *If God Was Your Financial Planner*, Tata McGraw-Hill.
2. Indian Institute of Banking & Finance (IIBF), *Certified Wealth Management Professional (CWMP) Courseware*.

Suggested Certifications / Value Additions:

1. Investment Management (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc26_mg05/preview
2. Behavioral Finance (Swayam-NPTEL): https://onlinecourses.nptel.ac.in/noc25_mg07/preview
3. Managing My Investments (OpenLearn / The Open University): <https://www.open.edu/openlearn/money-business/managing-my-investments>
4. Introduction to Wealth Management (Alison): <https://alison.com/course/introduction-to-wealth-management>
5. Personal Finance: Planning for Your Financial Future (Alison): <https://alison.com/course/personal-finance-planning-for-your-financial-future>