

MBA FINANCIAL MANAGEMENT
CURRICULUM AND REGULATIONS
EFFECTIVE FROM THE ACADEMIC YEAR
2024-25



DEPARTMENT OF COMMERCE AND FINANCIAL STUDIES
SCHOOL OF BUSINESS STUDIES
BHARATHIDASAN UNIVERSITY
TIRUCHIRAPPALLI – 620 024

Master of Business Administration –MBA (Financial Management)-CBCS

Regulations & Syllabi - 2024-2025 onwards

The Department of Commerce and Financial Studies offers MBA (Financial Management) since 2007 - 2008. The main objective of the Department is to promote teaching, research and training in the frontier fields of Commerce and Management especially in the area of Finance. Centre for Financial Markets, a centre under the Department of Commerce and Financial Studies in association with NSE Academy Limited aims to bring about greater value to the employment ready course MBA (Financial Management). The students of MBA (Financial Management) programme can gain practical knowledge through projects, educational tours, organizing events and other innovative teaching methods.

1) Course Features

Program : M.B.A (Financial Management)

Pattern : Semester

Mode : Full-time Regular on-Campus Programme

Duration : Two Academic Years consisting of Four Semesters

Medium of Instruction : English

Eligibility : B.Com. and other Commerce related disciplines (with at least two Accountancy Courses and one Computer related Course in eligibility degree is essential) with a minimum aggregate of at least 50% of marks (IInd class) under Part-III subjects. **Admission is based on Entrance Test** conducted by Centre for Financial Markets, Department of Commerce and Financial Studies and **academic score** in eligible UG programmes (50% weightage for UG part – III marks and 50% weightage for Entrance Test Score). The **exemption** from the Entrance Test will be given for the Candidates **who apply with a valid score of TANCET / GMAT / MAT / CAT / GATE** of respective years. The admission is based on the Reservation policy of the Government of Tamil Nadu as applicable during the respective years.

2) **Fee Structure** : As prescribed by the University from time to time.

3) **Credits** : The total number of credits for this programme are 124.

4) Attendance for students to write exams

Details	Percentage of Attendance
Eligible to write exam without Condonation fee	75 and above
Eligible to write exam with Condonation fee and Medical Certificate	65 to 74
Re-Doing the Semester (s) after completion of the programme	Below 65

5) Evaluation

Evaluation of each course (other than Summer Institutional Training Project, Main Project Work and Extra Disciplinary Courses) shall comprise of Continuous Internal Assessment (CIA) for 25 marks and End Semester Examination (ESE) for 75 marks. The Q.P setting and evaluation of ESE will be done by External Examiners, appointed for the purpose and while CIA components will be evaluated by respective course teachers.

5. a) The Components of CIA Marks are as follows

Test (Two)	10 (Third test for genuine absentees)
Seminar	5
Assignment	5
Case analysis/ Quiz/ Group discussion	5
Total Marks	25

5. b) Question Paper* Pattern for the End Semester Examination (ESE)

	Questions	Marks	Total Marks
Part A	10	2	20 marks
Ten Questions (no choice) (Two Questions from each unit)			
Part B	5	5	25 marks
Five Questions (either or type) (One Question from each unit)			
Part C	3	10	30 marks
Three Questions (either or type) (Not exceeding one Question from each unit)			
Total Marks			75 marks

* QP setters are requested to follow the 'RUPASCE' Level in setting the question papers by giving proper weightage to test the Remember, Understand, Practice, Analyze, Synthesize, Create and Evaluation ability at Introductory level, Reinforcement level and Mastery level. QP setters may be asked to avoid questions using "What" type and set questions giving equal weightage to all units of the course. The weightage for theory and problem may be given as prescribed in the course syllabus.

6) Passing Minimum

A student will be declared to have passed in each course other than Project Works and Extra Disciplinary Courses if he/she secures not less than 40 % marks in University Exams and 40 % marks in CIA and not less than 50 % marks in the aggregate taking CIA & End Semester Exams (ESE) marks together. The FAILED candidates in the Internal

Assessment are permitted to improve their Internal Assessment marks in the subsequent semesters (two chances will be given) by assessing the CIA components once again. The regulations of our University relating to Instant Examination, Revaluation and Retotaling will be applicable as usual.

7) Guidelines for Summer Institutional Training Project and Final Project

A project is a necessary condition for the award of MBA (Financial Management) degree. The project must be individual work and should be carried on in any finance firms in the domain covered in the syllabus especially in the Capital Market Domain. There will be an Internal Guide from the respective firm. The project report shall be written and submitted in the form of case analysis. The student should select a real-life transaction, event or situation of a finance firm or manager. It should develop practical solutions to the financial problems of business firms. Each student shall be required to carry out two projects (i) Summer Institutional Training Project and (ii) Project Work.

7. a) Summer Institutional Training Project (FMPW1/24)

Each student shall be required to take up institutional training cum project in any business organization for a period of not less than four weeks after completing the second semester (during vacation) and shall submit a report. While doing summer training project, the students are expected to interact with officials in the organization. The Training Certificate, Student Evaluation Form and Attendance Certificate with the Day Wise work carried out (Training Schedule) with the signature of the Official of the sponsored organization should be obtained and enclosed in the project. The project on different topics should be done under the guidance of an official of the chosen finance firms. The students will be evaluated on the basis of the report presentation and the feedback provided by the officials in the respective institutions. The evaluation of FMPW1 will be jointly done by External Examiner appointed for the purpose and Head / Faculty Member of the Centre for Financial Markets, Department of Commerce and Financial Studies.

7. b) Project Work (FMPW2/24)

In addition to the summer institutional project, each student shall be required to take up a project during the final semester and submit a report. The authenticity of the project work should be certified by the Supervisor and Director/ Coordinator of the Centre/ Head of the Department. The Final project report shall be jointly evaluated by the Supervisor/ Director/ Coordinator of the Centre /Head of the Department and External Examiner appointed for this purpose. At the end, Viva Voce examination shall be conducted. The format of the project

report and date of submission will be decided by the Centre for Financial Market/ Department of Commerce and Financial Studies. The weightage for viva voce is 25 marks and 75 marks for the Report.

7. c) Suggested Topics

The students are encouraged to take up a project on “contemporary concerns” under the guidance of a faculty member. The students are suggested to visit the NSE Website for the Student Research Projects, a research initiative by National Stock Exchange. The project should fit within one of the following themes:

Financing Policy - The analysis of specific decisions to issue equity, debt, convertibles, capital structure policy, distress financing, venture capital, project financing, real estate financing etc.

Investment Policy - The analysis of a major investment decision (involving real options), the review of a company’s capital budgeting system/process, the analysis of cross-border investment, etc.

Income Distribution Policy - The analysis of a company’s decision to alter its dividend policy or to distribute cash other than regular dividends, the analysis of the distribution policy of newly started company, etc.

Corporate Restructuring Activity - The analysis of a Joint Venture, Merger or Acquisition, divestiture, spin-off, split-up or carve-out, MBO or LBO, leveraged recap, equity-for-debt swap, IPO, roll-up, privatization, distress restructuring, etc.

Risk Management and Hedging Policy- This might be in the context of a major corporate or multinational, a securities firm, a bank, hedge fund, a pension plan, etc.

Portfolio and Investment Policy - The analysis of the investment policy, investment strategies, and/or performance of a fund manager, mutual fund, endowment fund, pension plan, hedge fund, etc.

Trading, Market Creation and Exchanges - The analysis of an organization’s trading strategies, performance evaluation of a prop-trading desk; the analysis of market- creating (or exchange) systems, including hedging and risk control.

Financial Engineering - The design/analysis of a new financial/structured product, the use/misuse of financial products by firms, complex securitizations, credit derivatives, etc.

Financial Institutions and Markets - Strategy, policy, and response to regulatory changes and other changes in financial markets (e.g. currency convergence).

Corporate Governance - The design of executive compensation schemes, communicating with shareholders, CEO succession; the effectiveness/impact of governance, etc.

Foreign Investment, Foreign Exchange, Capital Market and Trade – The analysis of foreign trade, currency futures, currency options, currency swaps, foreign exchange market efficiency, theories of exchange rate can be made.

Contemporary Topics - The students are free to propose other themes that are contemporary in nature and topics that fit within the broad area of finance in tune with emerging trends in government policy and promotions.

8) Case Studies

Each student should go to the identified concern, business unit and develop a case and submit the finance case to the course teacher. They can do the case analysis in the aspects namely Financial Statement Analysis using tools for analyzing Financial Statements, “Z” – Score analysis, Balance Score Card, Application of Accounting Standards, Working Capital Analysis such as Inventory, Cash, Financing policy, ABC, EOQ, Cost Analysis – CVP analysis, Break Even Analysis, Capital Structure Analysis, Corporate Evaluation – EVA, Share Price Analysis, Stock Market Practices analysis such as Trading pattern, Clearing and Settlement Process, Portfolio Management, Fundamental Analysis, Project Management & Analysis, Tax Management, Customer Satisfaction, Quality Control and other Areas of Finance. They should submit their detailed case reports (typed in MS Word Font Times New Roman Size 12 Line Spacing 1.5) covering the Company’s Origin, Structure, Control System and Growth, analysis results along with tables, charts, figures etc., to the Centre for Financial Markets/ Department of Commerce and Financial Studies and to the institution whose case they are analyzing. The students will be evaluated, based on the report presentation and the feedback provided by the officials in the respective institutions.

9) Career Oriented Additional Courses

The students will be encouraged to undergo Career Oriented Additional Courses such as Value-Added Course, Self-Study Course, Online Courses/MOOCs, NSE Certification in Financial Markets and Financial Professional Certification Course. It is the option of the students to choose these courses. These courses are over and above the courses of MBA and additional credits earned by students against these career-oriented courses are not part of MBA programmes.

(a) Value Added Courses (VACs)

The MBA students are encouraged to study the value-added courses with 2 credits in each semester. More details are given in the Regulations and Syllabi of **Certification Courses**. Only those students who are qualified for all the four courses relating to the Certification Course can alone get the Certification. If a student doesn't qualify all the four courses relating to the Certification Course, he/she can get only Mark Statement for such qualified Value-Added Course. The students can also opt for the Value-Added Courses offered by other departments of the University.

(b) Self Study Courses

Those willing MBA students are encouraged to study one self-study course in each semester. There are no regular theory & practical classes for those courses and the students need to study on their own and write exams for those courses in the respective semesters.

The Evaluation of each course shall comprise of Continuous Internal Assessments (CIA) for 25 marks and End Semester Exams (ESE) for 75 marks. The pattern of CIA and ESE of other courses of MBA (FM) is applicable to self-study course.

(c) Online Courses/ MOOCs

The students are encouraged to register for the MOOCs prescribed in the curriculum. However, the students can also select any other MOOCs after obtaining the approval of the University/ Centre for Financial Markets/ Department of Commerce and Financial Studies. The students should submit the copy of their MOOCs Certification received from the respective institutions to the Centre for Financial Markets/ Department of Commerce and Financial Studies. The credits earned by the students for MOOCs will be incorporated in the Mark Statements and the Consolidated Mark Statements.

(d) Financial Professional Certification Courses

The students are encouraged to undergo the online certification courses offered by reputed institutions like National Stock Exchange, Bombay Stock Exchange, Insurance Institute of India, and National Institute of Securities Market. These certification courses would enable them to qualify themselves to work in the respective finance domain.

(e) NSE Academy Certification Modules

The students are encouraged to undergo the certification courses offered by NSE Academy such as NCFM offers a comprehensive range of modules covering many different areas in finance. NCFM currently tests expertise in the modules NSE Certification in Financial

Markets Foundation, Intermediation and Advanced Modules and other courses. The students are instructed to visit the website NSE Academy Limited for details relating to these courses.

10) Industrial Visit

The Centre for Financial Markets/ Department of Commerce and Financial Studies will arrange Industrial Visit every year to the industries to impart the knowledge on the functioning of the industry. The students should attend those industrial visits arranged by the Centre for Financial Markets/ Department of Commerce and Financial Studies as the part of the course. The students are expected to make a report on the industrial visit within a week from the date of the industrial visit.

11) Special Lecture

The Centre for Financial Markets/ Department of Commerce and Financial Studies will organize Special Lectures by the resources persons from various reputed educational institutions, National Stock Exchange of India Limited and from the industries. The students should attend those Special Lectures organised by the department as the part of the course. The students are expected to make a report on the special lecture within two days of the lecture.

12) Completion of Courses

In line with the UGC Guidelines, the candidates (those who are unable to complete the MBA (Financial Management) within stipulated period of two years) will be allowed to complete within the next successive two years from the completion of period of study. In exceptional circumstances, a further extension of one year may be granted as a private candidate and they are not eligible for ranking.

13) Other Regulations

- a) The Departmental Committee/ members of Centre for Financial Markets will be empowered to change/modify the regulations relating to MBA (Financial Management) programme as and when required through the Board of Studies, Faculty and Academic Committee.
- b) The Departmental Committee/ members of Centre for Financial Markets may be empowered to implement the orders of the University

The Common regulations of the University shall also be applicable to this Programme.

**DEPARTMENT OF COMMERCE AND FINANCIAL STUDIES
BHARATHIDASAN UNIVERSITY
M.B.A (Financial Management) Under CBCS**

Syllabi - 2024-2025 onwards

Sl. No	Course Code	Title of the Course	Instruction Hours per week		No of Credits	Marks		
			Class Hours	Practical Hours		CIA	ESE	Total Marks
FIRST SEMESTER								
01	FMFC1/24	Foundation Course	5	1	6	25	75	100
		Corporate Finance						
02	FMCC1/24	Core Courses	5	2	6	25	75	100
		Accounting for Decision Making						
03	FMCC2/24	FinTech (NSE)	5	2	6	25	75	100
04	FMCC3/24	Optional Core Courses (Any 1 of the 2)	5	1	6	25	75	100
		Financial Markets (NSE)						
	FMCC4/24	Management Concepts and Behaviour						
05	FMEC1/24	Elective Courses (Any 1 of the 2)	4	3	6	25	75	100
		Applied Operations Research						
	FMEC2/24	R and Python for Finance (NSE)						
Total			24	9	30	125	375	500

Course Code	Title of the Course	Instruction Hours per week		No of Credits	CIA	ESE	Total Marks
		Class Hours	Practical Hours				
FMSC1/24	Self-Study Course Contemporary Business Communication and/or MOOCs	--	--	6	25	75	100
CCPCF1/24	Value Added Course (University Wide) Digital Marketing	2	1	2	25	75	100

Sl.No	Course Code	Title of the Course	Instruction Hours per week		No of Credits	Marks		
			Class Hours	Practical Hours		CIA	ESE	Total Marks
06	FMFC2/24	SECOND SEMESTER Foundation Course Fixed Income Securities Markets (NSE)	5	3	6	25	75	100
07	EDC1/24	Core Courses Extra Disciplinary Courses (EDC)	--	--	2	--	--	--
08	FMPW1/24	Summer Institutional Training Project	--	--	6	--	100	100
09	FMCC5/24	NSE SMART Trading Simulation Lab (NSE)	5	3	6	25	75	100
10	FMCC6/24 FMCC7/24	Optional Core Courses (Any 1 of the 2) Mergers, Acquisitions and Corporate Restructuring (NSE) Goods and Services Tax	5	3	6	25	75	100
11	FMEC3/24 FMEC4/24	Elective Courses (Any 1 of the 2) Managerial Economics AI/ML for Financial Sector (NSE)	5	3	6	25	75	100
Total			20	12	32	100	400	500

Course Code	Title of the Course	Instruction Hours per week		No of Credits	CIA	ESE	Total Marks
		Class Hours	Practical Hours				
FMSC2/24	Self-Study Course Entrepreneurship Development and/or MOOCs	--	--	6	25	75	100
CCPCF2/24	Value Added Course (University Wide) Insurance Marketing	2	1	2	25	75	100

Sl. No	Course Code	Title of the Course	Instruction Hours per week		No of Credits	Marks		
			Class Hours	Practical Hours		CIA	ESE	Total Marks
THIRD SEMESTER								
12	FMFC3/24	Foundation Course Security Analysis and Portfolio Management (NSE)	5	1	6	25	75	100
13	FMCC8/24	Core Courses Foreign Exchange Management (NSE)	5	1	6	25	75	100
14	FMCC9/24	Business Research Methods (NSE)	5	2	6	25	75	100
15	EDC2/24	Extra Disciplinary Course (EDC)	--	--	2	--	--	--
16	FMCC10/24 FMCC11/24	Optional Core Courses (Any 1 of the 2) Analytics for Finance (NSE) Corporate Tax Management	5	3	6	25	75	100
17	FMEC5/24 FMEC6/24	Elective Courses (Any 1 of the 2) Financial Planning and Wealth Management (NSE) Financial Modelling (NSE)	4	2	6	25	75	100
Total			24	9	32	125	375	500

Course Code	Title of the Course	Instruction Hours per week		No of Credits	CIA	ESE	Total Marks
		Class Hours	Practical Hours				
FMSC3/24	Self-Study Course Working Capital Management/or MOOCs	--	--	6	25	75	100
CCPCF3/24	Value Added Course (University Wide) Mutual Funds	2	1	2	25	75	100

Sl. No	Course Code	Title of the Course	Instruction Hours per week		No of Credits	Marks		
			Class Hours	Practical Hours		CIA	ESE	Total
		FOURTH SEMESTER						
18	FMFC4/24	Foundation Course Project Appraisal and Evaluation	5	3	6	25	75	100
19	FMCC12/24	Core Courses Financial Derivatives (NSE)	5	3	6	25	75	100
20	FMPW2/24	Project Work	--	--	6	--	100	100
21	FMCC13/24 FMCC14/24	Optional Core Courses (Any 1 of the 2) Behavioral Finance Blockchain for Managers (NSE)	5	3	6	25	75	100
22	FMEC7/24 FMEC8/24	Elective Courses (Any 1 of the 2) International Financial Management Algorithmic Trading (NSE)	5	3	6	25	75	100
		Total	20	12	30	100	400	500
		Grand Total	88	42	124	450	1550	2000

Course Code	Title of the Course	Instruction Hours per week		No of Credits	CIA	ESE	Total Marks
		Class Hours	Practical Hours				
FMSC4/24	Self-Study Course Corporate Ethics, Governance and Sustainability and/or MOOCs	--	--	6	25	75	100
CCPCF4/24	Value Added Course (University Wide) Stock Market Research Analysis	2	1	2	25	75	100

CIA = Continuous Internal Assessment **ESE** = End Semester Examination

FMFC – Financial Management Foundation Course

EDC – Extra Disciplinary Course by other departments

FMCC – Financial Management Core Course **FMPW** – Financial Management Project Work

FMEC – Financial Management Elective Course **FMSC** – Financial Management Self Study

CCPC – Certification Course on Professional Competency in Finance

List of MOOCs

S. No.	Name of the Course	Web Link
1	Accounting for Managerial Decisions	https://onlinecourses.swayam2.ac.in/nou22_cm19/preview
2	Foundation of Digital Business	https://onlinecourses.swayam2.ac.in/imb23_mg63/preview
3	Introduction to Operations Research	https://onlinecourses.nptel.ac.in/noc20_ma23/preview
4	Soft Skills	https://onlinecourses.nptel.ac.in/noc21_hs76/preview
5	Economics of Banking and Finance Markets	https://onlinecourses.nptel.ac.in/noc22_hs72/preview
6	A Basic Course in Machine Learning for All	https://onlinecourses.swayam2.ac.in/imb24_mg126/preview
7	Security Analysis & Portfolio Management	https://onlinecourses.nptel.ac.in/noc21_mg99/preview
8	Investment Management	https://onlinecourses.nptel.ac.in/noc23_mg62/preview
9	Foreign Exchange market	https://onlinecourses.swayam2.ac.in/imb23_mg57/preview
10	Research Methodology and Statistical Analysis	https://onlinecourses.swayam2.ac.in/nou21_cm03/preview
11	Quantitative and Mixed Methods Research for Management	https://onlinecourses.swayam2.ac.in/imb23_mg68/preview
12	Advanced R Programming for Data Analytics in Business	https://onlinecourses.nptel.ac.in/noc24_mg113/preview
13	Income Tax	https://onlinecourses.swayam2.ac.in/cec23_cm09/preview
14	Banking and Financial Markets: A Risk Management Perspective	https://onlinecourses.swayam2.ac.in/imb23_mg31/preview
15	Working Capital Management	https://onlinecourses.nptel.ac.in/noc19_mg40/preview
16	Econometric Analysis	https://swayam.gov.in/courses/5201-econometrics-analysis
17	Financial Accounting	https://swayam.gov.in/courses/5170-financial-accounting
18	Computer Fundamentals	https://swayam.gov.in/courses/5171-computer-fundamentals
19	Project management for managers	https://onlinecourses.nptel.ac.in/noc22_mg71/preview
20	Financial Derivatives & Risk Management	https://onlinecourses.nptel.ac.in/noc19_mg39/preview
21	E-Governance	https://swayam.gov.in/courses/5053-e-governance
22	Financial and Material Resources Management	https://swayam.gov.in/courses/5021-financial-and-material-resources-management
23	Business Planning and Project Management	https://swayam.gov.in/courses/4984-business-planning-and-project-management

Course Details of MBA (Financial Management)

Sl.No	Nature of the Course	No. of Courses	No. of Credits
1	Foundation Course	4	24
2	Core Course	6	36
3	Core Course with Electives	4 out of 8	24
4	Elective Course	4 out of 8	24
5	Extra Disciplinary Course	2	4
6	Summer Institutional Training Project	1	6
7	Project Work	1	6
Total		22	124

Self-Study Course (Additional)

Sl.No	Nature of the Course	Number of Courses	Number of Credits
1	Self-Study Course	4	24

Course Details of Certification on Innovation and Business Entrepreneurship (Additional)

Sl.No	Nature of the Course	Number of Courses	Number of Credits
1	Value Added Course	4	8

PROGRAMME OUTCOMES

- PO1 - PG Graduands buoying upwith **Professional Competences** have right mix of **Knowledge-portfolio, Skill-set, Mind-set and Pragmatism** in their chosen fields that employment/entrepreneurship demands.
- PO2 - PG Graduands with Characteristic sense of being **Seasoned** and **Spiritedness** exhibit commitment to fruitful **society contribution** and **nation-building** ethos.
- PO3 - PG Graduands exuberant with **Leadership Latitude** are mentored such that they are ready to assume stewardship role with **commitment to excellence** and **endurance**.
- PO4 - PG Graduants are directed in understanding of ethical principles and responsibilities, moral and social values in day-to-day life thereby attaining **Cultural** and **Civilized** personality.
- PO5 - PG Graduants are able to **Collate** information from different kinds of sources and gain a coherent understanding of the subject.

PROGRAMME SPECIFIC OUTCOMES

At the completion of the Programme, the students would be able to

- PSO1 - Demonstrate a general knowledge framework and understanding of key financial functions
- PSO2 - Get In-depth Knowledge and understanding of financial management of domestic and multinational corporate.
- PSO3 - Analyse the trend of the securities market using sophisticated software techniques.
- PSO4 - Offer comprehensive solutions to business problems by evaluating information using quantitative and qualitative reasoning and analysis.
- PSO5 - Integrate the social and ethical dimensions in arriving at the final solution.

FMFC1/24- CORPORATE FINANCE

Course Aim: The aim of the course is to develop critical thinking and problem-solving competencies, at both the individual and group levels, of financial statement analysis, financial planning, principles of valuation, capital structuring and to apply financial theory to analyze real life situations in an uncertain environment.

Course Outcome: At the end of this course the students would be able to:

CO1	Understand the concepts and functioning of finance, important elements of finance concepts for running a business.	L1 & L2
CO2	Analyse financial statements and various ratios for overall understanding of financial performance of a company and apply the various tools of financial statement analysis	L4
CO3	Apply the different corporate valuation approaches	L3
CO4	Calculate the cost of debt, cost of equity and the Cost of Capital, and understand the importance of Company's capital structure in Corporate Finance.	L4 & L5
CO5	Evaluate the factors affecting capital structure and describe the capital structure theories	L5

L1 - Remember; **L2** - Understand; **L3** - Apply; **L4** - Analyze; **L5** - Evaluate; **L6** – Create

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Financial Management: Objectives – Functions – Scope- Evolution - Importance of Financial Management - Fundamental Concepts in Financial Management - Types of Financial Management - Functions of Finance Manager in 21st Century - Treasurer and Controller - Role of Finance Manager - Emerging Trends in Financial Management - Limitations of Financial Management - Environment of Corporate Finance - Need for Ethical Finance – Time Value of Money. **Sources of Long-term Finance:** Equity Capital - Retained Earnings - Preference Capital -Term loans – Debentures - Pattern of Corporate Financing in India.

Unit II: Financial Planning and Capital Budgeting: Introduction and Meaning - Financial Planning - Sales Forecast - Financial Forecasting Vs Budgeting. **Capital Budgeting Techniques** - Non-Discounting Methods: Payback Period, Accounting Rate of Return - Discounting Methods: Net Present Value, Internal Rate of Return, Profitability Index

Unit III: Corporate Valuation: Approaches to Valuation: Adjusted Book Value Approach - Stock and Debt Approach - Direct Comparison Approach and Discounted Cash Flow Approach. **Approaches to Facilitate Value Based Management:** Marakon Approach - Alcar Approach - McKinsey Approach - MVA, EVA and BCG approach - Excel Basics and Applications.

Unit IV: Cost of Capital: Cost of Debt and Preference - Cost of Equity and Retained Earnings -Weighted Average Cost of Capital - Divisional and Project Cost of Capital -Cost of Capital in Practice. **Dividend Policy:** Types of Dividends - Irrelevance of Dividend - Relevance of Dividend - Factors Influencing Dividend Policy - Types of Dividend Policies.

Unit V: Capital Structure: Introduction - Factors Affecting Capital Structure. **Capital Structure Theories:** Net Income Approach - Net Operating Income Approach - MM

Approaches I & II - Traditional Approach - Optimal Capital Structure - The Hamada Equation and Capital Structure Decisions.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Problems-70% and Theory – 30%

References:

Books:

1. Pandey, I. M. (2021). **Financial Management (12th Edition)**. Pearson India Education Services Pvt. Ltd.
2. Khan M. Y. and Jain P. K. (2018). **Financial Management: Text, Problems and Cases (8th Edition)**. Tata McGraw Hill, New Delhi.
3. Prasanna Chandra. (2022). **Financial Management: Theory & Practice (11th Edition)**. India: McGraw Hill.
4. James C. Van Horne and Sanjay Dhamija. (2012). **Financial Management and Policy (12th Edition)**. India: Pearson Education India.
5. Brigham, E. F. (2011). **Fundamentals of Financial Management**. United States: South-Western Cengage Learning.
6. Ross, P. S. A., Westerfield, R. W. and Jordan, B. D. (2015). **Fundamentals of Corporate Finance**. United Kingdom: McGraw-Hill Education.
7. Toor N.S. and Arundeeep Toor. (2024). **Advanced Business & Financial Management**. India: Skylark Publications.
8. Rustagi, RP. (2024). **Financial Management (7th Edition)**. India: Taxmann Publication.
9. John Tennent. (2018). **The Economist Guide to Financial Management (3rd Edition)**. Profile Books Limited, London.
10. Ravi M. Kishore. (2020). **Financial Management (8th Edition)**. Taxmann's Publication, New Delhi.

Online References:

1. Swayam Course Material: **Fundamentals of Financial Management**, Created by Dr. Rupali Bipin Sheth, Savitribai Phule Pune University, Pune.
2. Swayam Course Material: **Strategic Financial Management: Managing for Shareholder Value**, Created by Prasanna Chandra, Centre for Financial Management.
3. MOOC Material: **Accounting and Finance (edX)**, Created by: Indian, Delivered by:EdX, Taught by: MS Narasimhan.
4. Swayam Course Material: **Financial Management**, Created by Vanitha Tripathi, Delhi University.
5. NPTEL Course Material: Course Name: Construction Economics & Finance, Module: **Financial Management**, Course Co-ordination: IIT Guwahati.

Extra Readings for Unit VI:

1. Journal of Corporate Finance
2. Journal of Applied Corporate Finance
3. Harvard Business Review
4. The Economist
5. Capital Market

Mapping with Programme Outcomes										
Cos	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	3	2	3	3	3	3	3	2
CO2	3	3	2	3	2	3	2	3	1	2
CO3	2	2	2	3	3	2	3	2	3	3
CO4	3	3	3	1	2	3	3	2	3	1
CO5	3	2	3	2	1	2	2	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMCC1/24 - ACCOUNTING FOR DECISION MAKING

Course Aim: This programme is designed to provide high quality education in theoretical and practical knowledge and skills in various aspects of accounting for those who wish to pursue or further advance their careers in business.

Course Outcomes: On completion of the course, the students will be able to

CO1	Understand financial statements and to make decisions based on the information available.	L1 & L2
CO2	Evaluate cost structure of various production methods.	L5
CO3	Describe and apply various aspects of management accounting methods.	L2 & L3
CO4	Apply the standard costing and budgetary control techniques in costing decisions.	L3 & L4
CO5	Apply the recent cost accounting techniques	L3 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Financial Accounting: Accounting Principles-Concepts and Conventions- Journal – Ledger – Trial Balance – Adjustments – Final accounts of a Sole Trader - Profit and Loss Account - Balance Sheet- Company Final Accounts as per the New Companies Act Schedule III - International Accounting Standards and Indian Accounting Standards-Indian GAAP– IFRS-FASB—SEC-IRS– Emissions Trading and Accounting of Carbon Credits-Fundamentals & Methods of Financial Accounting-Accounting for Special Transactions.

Unit II: Cost Accounting: Difference between Management Accounting and Financial Accounting - Definition and Scope of Cost Accounting - Significance and Limitations of Cost Accounting - Cost Classification - Cost Sheet - Methods of Costing - Process Costing - Job Costing-Cost for Decision Making.

Unit III: Management Accounting: Definition – Scope - Significance and Limitations - Management Accounting – Importance – **Financial Statement Analysis:** Introduction - Meaning and Concept of Financial Analysis - Types and Devices of Financial Analysis - Uses and Limitations of Financial Statements Analysis - **Understanding Financial Statements:** Balance Sheet - Income Statement - Common Size Analysis - Trend Analysis - Ratio Analysis - Dupont Analysis. **Marginal Costing:** Cost-Volume-Profit Analysis - Break Even Analysis-Profit planning - Decisions Regarding Sales Mix - Make or Buy decisions – Problem of key factor.

Unit IV: Standard Costing and Budgetary Control: Standard Costing - Variance Analysis-Material and Labour Only- Budgets and Budgetary Control - Classification of Budgets – Functional Budget – Production, Sales, Raw Materials Purchase and Cash Budget - Flexible Budgeting - Zero Based Budgeting- Types of Budgeting Systems-Quantitative Forecasting Techniques- Budget Compilation- The Control Process-Beyond Budgeting.

Unit V: Recent Trends in Cost Accounting: Value Chain Analysis - Quality Costing – Target Costing-Life Cycle Costing-Kaizen Costing-Activity Based costing.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Problems-60% and Theory – 40%

Reference:

Books:

1. Pandey, I.M., **Management Accounting**. (2018). 3rd Edition, Vani Publication, Delhi.
2. Gupta, K.L. (2023). **Accounting for Managerial Decisions**, Revised Edition, Sahitya Bhawan Publications.
3. Sharma R.K., Shashi K. Gupta. (2017). **Management Accounting Principles and Practices**, 13th Ed, Kalyani Publishing house, New Delhi.
4. Dan L. Heitger Maryanne M. Mowen, Don R. Hansen. (2024). **Managerial Accounting: The Cornerstone of Business Decision Making**, 7th Edition, Cengage Learning India Private Limited.
5. Jae K. Shim, Joel G. Siegel, Marc H. Levine, Nick Dauber. (2023). **Handbook of Financial Management**, CCH Publication.
6. Fredrik Nilsson and Michael Grant. (2022). **Intuitive Expertise and Financial Decision-Making**, 1st Edition, Routledge.
7. Gupta R.L. and Radhasamy, M. (2019). **Advanced Accounting**, 19th Edition, Sultan Chand & Sons, New Delhi.
8. Jain SP and Narayan KL. (2017). **Cost Accounting**, Kalyani Publishers, New Delhi.
9. Larry M. Walther. (2021). **Financial Accounting**, CreateSpace Independent Publishing Platform, Luxemburg.
10. Shukla M.C., Grewal T.S and Gupta S.C., (2016). **Advanced Accounting**, S. Chand & Co., New Delhi.

Online Reference:

1. Swayam Course Material: Accounting for Managerial Decisions, Created by Sunil Kumar, Indira Gandhi National Open University.
2. Swayam Course Material: Accounting for Managerial Decisions, Created by Dr. N. Rajendra Prasad, Indira Gandhi National Open University.
3. MOOC Material: **Financial Accounting: Foundations (Coursera)**, Created by: University of Illinois at Urbana-Champaign, Delivered by: Coursera, Taught by: Oktay Urcan.
4. MOOC Material: **Accounting for Decision Making (Coursera)**, Created by: University of Michigan, Delivered by: Coursera, Taught by: Greg Miller.
5. MOOC Material: **Financial Accounting: Advanced Topics (Coursera)**, Created by: University of Illinois at Urbana-Champaign, Delivered by: Coursera, Taught by: Oktay Urcan.
6. Accounting Standards, www.icai.org.

Extra Readings for Unit VI:

1. ICAI Journal
2. The Management Accountant
3. Journal of Accountancy
4. The CPA Journal
5. Business India

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	2	3	3	3	2	3	3	2
CO2	3	3	3	2	2	3	3	3	2	2
CO3	2	2	2	3	3	2	3	2	3	3
CO4	3	3	3	1	2	3	2	3	1	2
CO5	3	3	2	2	3	2	3	3	3	2

1 – Low, 2 – Medium, 3 - Strong

FMCC2/24 - FINTECH

Course Aim: The aim of this course is to study the FinTech provide finance students with varying degrees of knowledge in many fields such as banking and financial services, fintech security, the start-up environment, legislation, and risk management. They must be up to speed on financial developments, which may be achieved with the aid of a FinTech course.

Course Outcomes: After completing this course, they should be able to:

CO1	Understand New Technological Developments in the Financial System	L2 & L3
CO2	Analyse Digital Efficiency, Accessibility, Convenience, and Security in various Financial Activities, including Banking, Investing, Payments, Transactions, and Insurance	L4
CO3	Understand the Basic Concepts of Fintech Lending and Credit	L1 & L2
CO4	Define Robo-Advisors and Automated Digital Investment Platforms, Crowdfunding	L1
CO5	Discriminate the Regulatory Environment and Fintech Social Impact	L4 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Fin-Tech and Emerging Markets: Overview of Fin-Tech: Definition and Scope of Fin-Tech - Evolution of Fin-Tech - Key Technologies Driving Fin-Tech (Blockchain, AI, Big Data, IoT). **Fin-Tech Ecosystem:** Startups, Financial Institutions, Regulators - Global Fin-Tech Landscape vs. Indian Fin-Tech Landscape. **Fin-Tech for Financial Inclusion:** Role of Fin-Tech in Bridging the Financial Inclusion Gap. **Case Study:** M-Pesa in Kenya and its Influence on Indian Mobile Payments - Microfinance and Digital Lending Solutions for Rural India - Role of Digital Identity and Aadhaar in Financial Inclusion.

Unit II: Digital Payments and Innovations: Digital Payment Systems - Digital Wallets and Mobile Payments (e.g., Paytm, Google Pay) - Unified Payments Interface (UPI) and its Impact in India - Blockchain and Cryptocurrencies (e.g., Bitcoin, Ethereum) - Cross-border Payments and Remittances. **Case Study:** BHIM UPI and its Adoption in Rural India. **Security and Fraud Prevention in Digital Payments:** Cybersecurity Measures - Fraud Detection Technologies-Regulatory Frameworks and Compliance. **Future Trends and Innovations:** Open Banking and API Economy - InsurTech and its Evolution (e.g., Policy Bazaar) - The Role of Artificial Intelligence and Machine Learning. **Case Study:** Aadhaar-Enabled Payment Services (AEPS) and Financial Transactions.

Unit III: Fin-Tech in Lending and Credit: Digital Lending Platforms: Peer-to-Peer (P2P) Lending - Online Personal and Business Loans - Credit Scoring Innovations (e.g., CIBIL, CRIF High Mark) - Role of AI in Underwriting and Risk Assessment. **Impact of Fin-Tech on Traditional Banking:** Digital-Only Banks - Integration of Fin-Tech Solutions in Conventional Banks. **Case Study:** Indifi Technologies' Approach to SME Lending.

Unit IV: Digital Investments and Crowdfunding: Robo-Advisors and Automated Investment Platforms: Introduction to Robo-Advisors - Algorithmic Trading - Personalized Financial Planning and Advisory. **Crowdfunding and Alternative Investments:** Equity Crowdfunding - Real Estate Crowdfunding - Impact Investing and Socially Responsible Investing. **Case Study:** Ketto and the Rise of Social Crowdfunding in India.

Unit 5: Regulatory Environment and Fin-Tech Social Impact: Regulatory Landscape: Key Regulatory Bodies in India (RBI, SEBI) - Regulations Impacting Fin-Tech (PSS Act, GDPR) - Sandboxing and Innovation Hubs. **Fin-Tech and Social Impact:** Impact of Fin-Tech on Small and Medium Enterprises (SMEs) - Women Empowerment through Fin-Tech (e.g., Rang De's Women Entrepreneurship Initiatives) - Fin-Tech for Agriculture and Rural Development. **Case Study:** Digital Payments and Its Role in the Direct Benefit Transfer (DBT) Scheme. Challenges and Opportunities in Emerging Markets - Infrastructure and Connectivity Issue - Regulatory Challenges and Innovations - Opportunities for Startups and Entrepreneurs. **Case Study:** Bharat Interface for Money (BHIM) and Its Success Story in India.

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Anil Kumar Mahra and Kamesh Satish Pawar, (2024). **“Fintech: in India”**, Edwin Incorporation.
2. Sanjay Phadke. (2023). **“Fintech Future: The Digital DNA of Finance”**, Atlantic Publishers and Distributors (P) Ltd.
3. Paul Taylor. (2022) **“Emerging FinTech: Understanding and Maximizing Their Benefits”**, Business Expert Pres.
4. Steven O'Hanlon and Susanne Chishti. (2021). **“FinTech For Dummies”**, Wiley.
5. Jian Gong and Wei Xu. (2020). **“Cryptoeconomics”**, 1st Edition, Auerbach Publications.

Online References:

1. MOOC Material: Fundamentals of Artificial intelligence, Created by: Prof. Shyamanta M. Hazarika, IIT Guwahati.
2. MOOC Material: Foundations of Digital Business, Created by: Prof. Rahul De', Shankar Venkatagiri, Shankhadeep Banerjee, Spurthy Dharanikota, Indian Institute of Management Bangalore (IIMB).
3. MOOC Material: Digital Banking Business Model (edX), Created by: State Bank of India, Mumbai, Delivered by: EdX, Taught by: Deepak Kumar, Rajeev Shankar and Srinivas Rao Nandiwada.

Extra Readings for Unit VI:

1. Reserve Bank of India Bulletin.
2. FinTech Magazine
3. Journal of Banking and Finance
4. Journal of Banking and Financial Technology
5. Financial Innovation

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	2	3	3	3	3	3	3
CO2	2	2	3	2	3	2	3	2	2	3
CO3	3	3	2	3	2	3	2	3	3	2
CO4	2	2	3	3	2	2	3	3	2	3
CO5	3	3	2	2	3	3	2	2	3	3

1 – Low, 2 – Medium, 3 - Strong

FMCC3/24 - FINANCIAL MARKETS

Course aim: This course aims to get a basic understanding of the products, players and functioning of financial markets, particularly the capital market, to understand the terms and jargons used in the financial newspapers and periodicals which would help them to have a better understanding of the concepts of derivatives.

Course Outcome: Students completing this course will be able to:

CO1	Understand the basics of investment and securities	L1 & L2
CO2	Analyse the role and functioning of primary market	L4
CO3	Understand the differences between primary and secondary market and analyse the products in the secondary market	L2 & L4
CO4	Evaluate the role of derivatives and depositories	L4 & L5
CO5	Analyse the functioning of international financial markets	L4
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Investment Basics: Investment Meaning – Interest Rates – Factors determining Interest Rates – Various Investment Avenues. **Securities:** Meaning of Securities – Functions of Securities Market – Regulators – Role of SEBI – Participants in the Securities Market – Segments of Securities Market.

Unit II: Primary Market: Role of Primary Market – Face Value of a Share/Debenture – Premium and Discount in a Security Market. **Issue of Shares:** Different kinds of Issues – Issue Price – Market Capitalisation – Difference between Public Issue and Private Placement – Initial Public Offer (IPO) – Price discovery through Book Building Process – Cut-Off Price – Prospectus – Listing of Securities – Delisting of Securities – SEBI’s Role in an Issue.

Unit III: Secondary Market: Meaning of Secondary Market – Role of Secondary Market – Difference between Primary Market and Secondary Market – Role of Stock Exchange – Stock Trading: Screen Based Trading, NEAT, Contract Note. **Products in the Secondary Market:** Equity Investment – Debt Investment: Debt Instrument and its features, Segments in the Debt Market, Participants in the Debt Market.

Unit IV: Derivatives and Depository: Types of Derivatives – Option Premium – Commodity Exchange – Meaning of Commodity – Commodity Derivatives Market – Difference between Commodity and Financial Derivatives. **Depository:** Depositories in India – Benefits of Participation in a Depository – Depository Participant (DP) – ISIN – Custodian – Dematerialising Securities.

Unit V: International Financial Markets: Depository Receipts. **International Stock Indices:** S & P 500 Index - Dow Jones Industrial Average (DJIA) - NASDAQ Composite Index (COMP) - Nikkei 225 (NKY) - Trading in Global Markets Through NSE – Exchange Traded Funds (ETFs) - ESG (Environmental, Social, and Governance) considerations in International Investments.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. NCFM, **Financial Markets: Beginners Module**, Mumbai: NSE.
2. Khan, M.Y. and Jain, P.K. (2020). **Financial Management**, 11th Edition, McGraw Hill Education.
3. Frederic S. Mishkin, Stanley G. Eakins and Tulsi Jayakumar, (2024), **Financial Markets and Institutions**, 10th Edition, Pearson Education.
4. Vinod Kumar; Manmeet Kaur and Atul Gupta, (2021). **Financial Markets Institutions & Services**, 2nd Edition, Taxmann.
5. Mishkin. (2019). **Economics of Money Banking and Financial Markets** 11th Edition, Pearson Education India.
6. Sarika R. Lohana, Kanchan Naidu, Kiran Jalem and Swati Sharma. (2023). **Financial Markets, Financial Institutions and Financial Services**, 1st Edition, New Century Publications, New Delhi.
7. Refet Gürkaynak and Jonathan Wright. (2023). **Research Handbook of Financial Markets**, Edward Elgar Publishing.
8. Bharati V. Pathak (2018), **Indian Financial System**, Pearson India Education Services Pvt Ltd.
9. Machiraju H.R. (2019). **Indian Financial System**. New Delhi: Vikas Publishing.
10. Marc Levinson (2018), **Guide to Financial Markets: Why they Exist and How they Work**. The Economist Books.
11. Mishkin. S and Stanly Eakins (2017) **Financial Markets and Institutions**, Pearson India.

Online References:

1. MOOC Material: **Banking and Financial Markets: A Risk Management Perspective** delivered by: P C Narayan, created by: Indian Institute of Management Bangalore (IIMB).
2. MOOC Material: **Economics of Banking and Finance Markets**, delivered by: IIT Kanpur, created by: Prof. Sukumar Vellakkal.
3. MOOC Material: **Financial Markets** created by: Yale University, delivered by: Coursera, Taught by: Robert Shiller
4. MOOC Material: **Financial Markets** created by: ISB, delivered by: Coursera, Taught by: Vaidya Nathan
5. MOOC Material: **Financial Markets** created by: Yale University, delivered by: Coursera, Taught by: Bob Shiller
6. MOOC Material: **Understanding Financial Markets** created by: University of Geneva, delivered by: Coursera, Taught by: Ines Chaieb

Extra Readings for Unit VI:

1. Wall Street Journal
2. The Financial Times
3. MIT Sloan Management Review
4. Websites of NSE and BSE
5. SEBI and Corporate Laws.

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	2	3	1	3	3	3	2
CO2	2	3	3	3	3	3	2	2	1	1
CO3	3	2	2	3	1	2	3	2	3	3
CO4	3	3	3	3	3	3	1	3	3	3
CO5	2	3	2	2	3	2	3	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMCC4/24 - MANAGEMENT CONCEPTS AND BEHAVIOUR

Course Aim: The course aim is to understand the nature and scope of management; to know the difference between management and administration; to understand various levels of management; and to describe the various skills that are necessary for becoming successful managers.

Course Outcome: At the end of this course, the students would be able to

CO1	Understand the historical backdrop and fundamentals of Management thoughts vital for understanding the conceptual frame work of Management as a discipline.	L1 & L2
CO2	Explain various concepts of planning, decision making and controlling to help solving managerial problems	L2 & L3
CO3	Appraise the principles of organizing and application of motivation theories	L4 & L5
CO4	Assess the principles of directing and various leadership styles	L4
CO5	Evaluate the ways and means of exercising effective control	L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning.

Unit I: Nature and Process of Management-Meaning- Features- Functions and Importance of Management- Management as Science, Art and Profession- Managerial Skills- Tasks of Management- Role of Managers- Nature of Management- Management by Objectives (MBO) – MBE - Policies and Strategies - Scope and Formulation - Concept of Management-Management Vs Administration- Levels of Management- Functions of Management- Management as a Profession- Management Skills- Qualities and Characteristics of Managers- Evolution of Management Thought- Early Contributions- Taylor and Scientific Management- Fayol's Administrative Management- Bureaucracy- Human Relations and Modern Approach- Social responsibility of Managers- Managerial Ethics.

Unit II: Planning-Concept of Planning-Significance of Planning-Classification of Planning- Barriers to Effective Planning- Management by Exception- Features- Nature- Importance- Benefits- Limitations- Elements- Principles of Planning- Planning Process. **Strategy:** Meaning- Features- Benefits- Limitations and Process of Strategy- Implementation of Strategies- Levels of Strategy- Environmental Analysis and Diagnosis.

Unit III: Organizing-Elements- Nature- Process and Importance of Organizing- Organizational Behaviour- Organization Manuals- Span of Management- Principles of Organizing- Women in Workplace. **Motivation:** Meaning- Nature and Importance of Motivation- Approaches to Motivation- Theories of Motivation.

Unit IV: Directing-Nature- Principles and Importance of Directing- Supervision, Supervisor's role- Qualities of Supervisor- Directing Concept-Techniques of Directing-Types of Supervision-Essential Characteristics of supervisor. **Leadership:** Meaning- Elements- Process- Nature and Importance of Leadership- Leadership Styles- Management and Leadership- Effective Leadership- Qualities of a Leader-Characteristics of an effective leader.

Unit V: Controlling-Meaning, Nature, Importance and Types of Control, Resistance to Control, Ways to overcome resistance to Control, Focus of Control, Control Process, Essentials

of an Effective Control System, Principles of Control-Concept of Controlling- Steps in Control Process.

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Prasad. L.M, (2020), **Principles and Practice of Management**, New Delhi: Sultand Chand & Sons.
2. Harold Koontz ,Heinz Weihrich and Mark V. Cannice, (2020). **Essentials of Management**,11th Edition, McGraw Hill.
3. Stephen P .Robbins, Timothy A. Judge (2019), **Essentials of Organization Behaviour**, Pearson Education.
4. Stephen P. Robbins, Mary Coulter and Agna Fernandez (2019), **Management**, 14th Edition, Pearson Education.
5. Dr. Megha Bhatia, and Dr. Aarti Garg (2024), **Management Concepts and Organizational Behaviour**, Book Rivers.
6. Bhadra & Satpati, (2023). **Principles and Practice of Management**, 1st Edition, Dishari Prakashani.
7. Neharika Vohra Stephen P. Robbins and Timothy A. Judge, 2022, **“Organizational Behavior”**, 18th Edition, Pearson Education, Pp:01-796.
8. Laxman Prasad, 2021, **“Management Concepts”**, LAP Lambert Academic Publishing, Pp:01-76.
9. Luthans (2017), **Organizational Management- An Evidence**, 12th edition, McGraw Hill Education
10. Peter Eichhorn and Ian Towers (2018), **Principles of Management: Efficiency and Effectiveness in the Private and Public Sector**, Springer International Publishing, Switzerland.
11. Varma Sumati (2019), **Fundamentals of International Business**, 4th Edition, Pearson Education.
12. Tripathi (2017), **Principles of Management**, 6th Edition, McGraw Hill Education.
13. Tim Matthews (2018), **Principles and Practices of Management**, Meetcoogle.
14. Pushpinder Singh Gill, Paramjeet Kaur (2017). **Principles of Management**, Atlantic Publishers &Distributors (P) Ltd.

Online References:

1. MOOC Material: **Management Concept**, Created by: Aligarh Muslim Universityl, Delivered by Coursera, Taught by: Dr. Sheema Tarab, Prof. Nawab Ali Khan.
2. MOOC Material: **Principles of Management**, Created by: Banaras Hindu University Delivered by: Coursera, Taught by:Prof. Vishal Kumar Laher.
3. MOOC Material: **Managing the Company of the Future**, Created by London Business School, Delivered by Coursera, Taught by: Julian Birkinshaw.
4. MOOC Material: **Leadership, Identify, Influence and Power**, Created by Macquarie Graduate School of Management, Delivered by Open2study, Taught by: Randal Tame.
5. MOOC Material: **Human Resources**, Created by Open Training Institute, Delivered by Open2
6. MOOC Material: **Critical Perspectives** study, Taught by: Christina Dahdal.

Extra Readings for Unit VI:

1. Prime Insights Magazines
2. Bloomberg Businessweek
3. Harvard Business Review
4. MIT Sloan Management Review
5. McKinsey Quarterly

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	2	2	1	2	3
CO2	3	2	3	3	2	2	2	2	3	3
CO3	3	3	3	3	2	2	2	3	3	3
CO4	3	3	3	1	2	3	3	3	3	3
CO5	3	3	3	3	2	3	3	3	3	3

1 – Low, 2 – Medium, 3 - Strong

FMEC1/24 - APPLIED OPERATIONS RESEARCH

Course Aim: The aim of the course is to give students a solid quantitative foundation alongside practical problem-solving technique. The course is intended to provide the students with deeper analytical skills and an understanding of how these are applied to business and management problems.

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

CO1	Describe the importance and application of time value of money in solving practical problems in industry	L1 & L2
CO2	Apply linear programming techniques to solve a variety of business problems	L3
CO3	Integrate transportation and assignment problem strategies in real world applications	L6
CO4	Formulate a managerial decision problem into a inventory model and decision making theory	L6
CO5	Application of queuing theory models to evaluate their results	L5

L1 - Remember; **L2** - Understand; **L3** - Apply; **L4** - Analyze; **L5** - Evaluate; **L6** - Create

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Operations Research - Stages of Development of Operations Research - Applications of Operations Research - Limitations of Operations Research - Probabilistic Models – game theory- decision analysis - Stochastic decision modeling techniques including discrete-time Markov chains- continuous- time Markov chains - Statistical Models

Unit II Linear Programming: Introduction to applications of operations research in functional areas of management – Linear Programming formulation - solution by graphical and simplex methods – Individual Programming - Applications of linear programming in business decision making

Unit III Transportation: Transportation Models (Minimising and Maximising Problems) – Balanced and unbalanced Problems – Initial Basic feasible solution by N-W Corner Rule - Least cost and Vogel’s approximation methods - Check for optimality - Solution by Modified Distribution Method (MODI) / Stepping Stone method. Assignment Models - Types of Assignment Problem - Hungarian Method.

Unit IV Inventory Models and Decision Theory: Inventory Models – EOQ and EBQ Models (With and without shortages) - Quantity Discount Models - Inventory control systems (fixed order quantity, fixed order interval) - ABC analysis. Decision making under risk – Decision trees – Decision making under uncertainty - Applications of decision analysis in business.

Unit V: Queuing Theory: Introduction to Queuing Theory – Terminologies of Queuing System – Characteristics of queuing systems - Poisson and exponential distributions - Empirical Queuing Models.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Hamdy A Taha, 2022, *Operations Research: An Introduction*, 11th Ed., Pearson, USA.
2. Michael W. Carter and Camille C. Price, 2018, *Operations Research: A Practical Introduction, 2nd ed.* CRC Press, Florida
3. Nezameddin Faghih, Ebrahim Bonyadi, Lida Sarreshtehdari, 2021, *Quality Management and Operations Research Understanding and Implementing the Nonparametric Bayesian Approach*, CRC Press, Florida.
4. Pandey, I.M., 2015, *Financial Management*, 11th Ed., Vikas Publishing House Pvt. Limited.
5. O.P Agarwal, 2008, *International Financial Management*, Himalaya Publishing house
6. Prasanna Chandra, 2019, *Financial Management: Theory and Practice*, 10th Ed., McGraw Hill Education (India) Private Limited.
7. Raju N.V.S, 2020, *Operations Research: Theory and Practice*, CRC Press, Taylor and Francis Group, New York.
8. Srinivasan G, 2017, *Operations Research – Principles and Applications*, 3rd Edition, Prentice Hall of India.
9. Yadav .S.R and Malik A. K, 2015, *Operations Research*, Oxford University Press.

Online References:

1. Swayam Course Material: *Statistics for Business - I*, Created by Shankar Venkatagiri, IIM Bangalore.
2. MOOC Material: *Principles of Valuation: Time Value of Money*, Created by: University of Michigan, Delivered by: Coursera, Taught by: GautamKau.
3. MOOC Material: *Operations Analytics*, Created by: University of Pennsylvania, Delivered by: Coursera, Taught by: SenthilVeeraraghavan.
4. MOOC Material: *Introduction to Operations Research*, Created by: Department of Management Studies IIT Madras, Delivered by: Swayam, Taught by: Dr. G. Srinivasan.
5. MOOC Material: *Introduction to Decision Making*, Created by: University of Michigan, Delivered by: Coursera, Taught by: Scott E. Page

Extra Readings for Unit VI:

Journals:

1. Operations Research
2. European Journal of Operational Research
3. Annals of Operations Research

Websites:

1. www.informs.org
2. www.theorsociety.com

Magazines:

1. The OR Society's Impact Magazine
2. Quality Progress

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	1	2	2	1	2	1	3	2
CO2	3	3	2	2	3	2	2	3	3	3
CO3	3	2	2	3	2	2	3	2	2	2
CO4	1	2	3	2	2	3	2	3	3	3
CO5	3	3	3	2	3	3	2	3	1	1

1 – Low, 2 – Medium, 3 - Strong

FMEC2/24 - R AND PYTHON FOR FINANCE

Course Aim: The aim of the course is to provide a broad understanding of the principles and techniques of Python coding for finance applications. The course is intended to illustrate how data analytics can improve financial decision-making. This course would provide students with a foundation for performing data analytics in finance-related roles both inside the financial sector and outside the financial sector.

Course Outcome: After completing this course, the student should be able to:

CO1	Understand the need and advantages of using python for financial analytics.	L1 & L2
CO2	Practice advanced calculation, generate outputs, create variables, abstract from data using python.	L3
CO3	Devise python models and techniques that aid design, analysis and evaluation of financial decision-making.	L4
CO4	Collaborate and implement advanced machine learning models in finance using python.	L5
CO5	Create Excel, Web and GUI based design for trading platforms to support analytics.	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Python and Finance: Python - History of Python – Python Ecosystem – Technology in Finance – Rise of Real-Time Analytics – Finance and Python Syntax, Efficiency and Productivity Through Python – From Prototyping to production – Python Deployment – Anaconda – JupyterLab – VS Code – Advances in Algorithmic Trading – Machine Learning for Algorithmic Trading.

Unit II: Data Types and Structures: Basic Data Types - Basic Data Structures - Excursion: Control Structures - Control Structures - Functional Programming – Dictionaries – Sets – Introduction to Pandas Data Frames – NumPy Data Structures: Arrays with Python Lists - Regular NumPy Arrays - Structured Arrays. Vectorization of Code: Basic Vectorization. Data Visualization - Two Dimensional Plotting – One-Dimensional Data Set – Two Dimensional Data Set – Other Styles.

Unit III: Financial Time Series: Pandas Basics - Basic Analytics - Series Class – Group By Operations - Financial Data - Regression Analysis - High-Frequency Data. Input/Output Operations: Basic I/O with Python - Writing Objects to Disk - Reading and Writing Text Files - SQL Databases - Writing and Reading NumPy Arrays - I/O with pandas - From SQL to pandas - Data as CSV File - Data as Excel File - Fast I/O with PyTables.

Unit IV: Mathematical Tools: Approximation – Regression – Interpolation. Convex optimization – Global Optimization - Local Optimization - Constrained Optimization. Integration: Numerical Integration - Integration by Simulation - Symbolic Computation - Monte Carlo Integration - Symbolic Computation- Introduction to Machine Learning Techniques in Finance.

Unit V: Financial Analytics and Development: Excel Integration – Basic Spreadsheet interaction – Scripting Excel with python – Object Orientation and Graphical User Advanced Excel Integration – Automation with Python – Building Dashboards with Python – Object Orientation and Graphical User Interfaces – Advanced Object Orientation – Basics of Python

classes – Financial Models using Python classes – Developing Interactive Financial Applications with Dash and Plotly.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Marks: CIA – 25 and ESE – 75 (Out of 75, 45 marks for written and 30 marks for practical)
(The ESE Theory Examination would be conducted for 75 marks and converted for 45 marks)

References:

Books:

1. Fletcher, S., Gardner, C. (2010). Financial Modelling in Python. Germany: Wiley.
2. Yves Hilpisch. (2021). Financial Theory with Python, O'Reilly Media
3. Hilpisch, Y. (2014). Python for Finance: Analyze Big Financial Data. United States: O'Reilly Media.
4. Hilpisch, Y. (2020). Python for Algorithmic Trading. United States: O'Reilly Media.
5. Lewinson, E. (2020). Python for Finance Cookbook: Over 50 Recipes for Applying Modern Python Libraries to Financial Data Analysis. United Kingdom: Packt Publishing.
6. Lookabaugh, B., Tatsat, H., Puri, S. (2020). Machine Learning and Data Science Blueprints for Finance. China: O'Reilly Media.
7. Molin, S. (2019). Hands-On Data Analysis with Pandas: Efficiently Perform Data Collection, Wrangling, Analysis, and Visualization Using Python. United Kingdom: Packt Publishing.
8. Naik, K. (2019). Hands-On Python for Finance: A Practical Guide to Implementing Financial Analysis Strategies Using Python. United Kingdom: Packt Publishing.

Online References:

1. <https://towardsdatascience.com/python-for-finance-the-complete-beginners-guide-764276d74cef>
2. <https://pythonforfinance.net/>
3. <https://github.com/yhilpisch/py4fi>
4. <https://github.com/wilsonfreitas/awesome-quant>
5. MOOC Material: *Applied Data Science with Python Specialisation*, Created by: University of Michigan, Delivered by: Coursera, Taught by: Christopher Brooks.
6. MOOC Material: *Machine Learning A-Z: Hands-on Python & R in Data Science*, Created by: Kirill Eremenko, Hadelin de Ponteves, Super DataScience Support, LGENCY Team, Delivered by: Udemy, Taught by: Christopher Brooks.
7. MOOC Material: *Data Science: R Basics*, Created by: Harvard University, Delivered by: edX, Taught by: Rafael Irizarry.

Extra Readings for Unit VI:

Journals:

1. The R Journal
2. R-bloggers
3. Python Software Foundation News

Websites:

1. towardsdatascience.com
2. www.oreilly.com

Magazine:

1. Analytics Vidhya

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	2	2	1	1	2	3	3
CO2	2	3	2	2	3	3	3	3	3	2
CO3	3	2	2	3	2	3	3	3	2	3
CO4	2	2	3	2	2	2	2	1	3	2
CO5	3	3	3	2	3	3	3	3	2	3

1 – Low, 2 – Medium, 3 – Strong

FMSC1/24 – CONTEMPORARY BUSINESS COMMUNICATION

Course Aim: The course aims to explain the fundamentals, scope and importance of communication in business, develop individual reading and listening skills of the students and to transform their communication abilities by honing their oral, written, and non-verbal communication skills.

Course Outcome: At the end of the Course, the student would be able to

CO1	Articulate correctly and effectively on matters having relevance to day-to-day business operations	L1 & L3
CO2	Develop reading and listening skills among the students	L3 & L6
CO3	Devise effective writings on resumes, and reports	L4
CO4	Preparing agenda, circular and minutes of the meeting for the effective conduct of the office meetings.	L6
CO5	Prepare oneself for the Job Interview	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Self Learning and Peer learning.

Unit I: Business Communication: Meaning and Objectives of Business Communication – Factors Affecting Business Communication - Verbal Communication (Group Discussion, Business Presentation) – Non-Verbal Communication – Body Language – Communication and Electronic Media – Communication and Social Media. Kinesics – Proxemics – Time language and Haptics: Touch language

Unit II: Parts of the Speech - Nouns – Pronouns – Verbs – Adjectives – Adverbs – Prepositions – Conjunctions – Interjections: **Verb Tenses and Voice** - Principal Parts of Verbs - Regular and Irregular Verbs - Tenses of Verbs - Perfect Tenses - Progressive and Emphatic Forms - Consistency of Tenses - Voice of Verbs - Mood of Verbs

Unit III: Parts of the Sentence - Sample Subjects and Simple Predicates - Complete Subjects and Complete Predicates - Compound Subjects and Compound Predicates - Order of Subjects and Predicate – Complements

Unit IV: Written Communication – The Process of Writing - Notice, Agenda and Minutes - Business Letters – Memorandums – E-mail – Text Messaging – Instant Messaging – Directness in Good and Neutral Messages - Indirectness in Bad-News Messages – Types - Characteristics of good Report - Report of individuals.

Unit V: Employment Communication: Application for Jobs: Preparation of resume – Interviews – Meaning - Types of Interviews - Candidates preparing for an interview - Guidelines to be observed during an interview- Business Report Presentations. E-mail Slide or Visual Presentation - Internet - Video conferencing - Group Discussion.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Barbara G. Shwom, 2018, *Business Communication: Polishing Your Professional Presence*, Pearson Education, Noida.
2. Guffey, M. E., Loewy, D, 2021, *Business Communication: Process & Product*, United States: Cengage Learning.
3. Gupta S.C, 2018, *Practical English Grammar and Composition*, Arihant Publications India Limited.
4. Lawson, C., Witsel, M., Gill, R., Feekery, A, 2019, *Communication Skills for Business Professionals*, United Kingdom: Cambridge University Press.
5. Peter Hartley and Peter Chatterton, 2015, *Business Communication: Rethinking Your Professional Practice for the Post-digital Age*, Routledge, UK.
6. . *Effective Business English and Correspondence - M.S. Ramesh and Pattenshetty R.S.Chand & Co, Publishers, New Delhi - 2.*
7. *Commercial Correspondence R.S.N.Pillai and Bhagavathi.S. Chand Publications, New Delhi.*
8. *Business Communication - Sathya Swaroop Debasish, Bhagaban Das, PHI Learning Pvt Ltd., New Delhi 2010 Editio*

Online References:

1. MOOC material: *Business Communication (edX)* Created by: The University of British Columbia, Canada, Delivered by: EdX, Taught by: Marlis Silver Sweeney.
2. MOOC material: *Business Communication (edX)* Created by: Rochester Institute of Technology, United States, Delivered by: EdX, Taught by: Andrea Hickerson.
3. MOOC material: *Business Writing (Coursera)* Created by: University of Colorado Boulder, United States, Delivered by: Coursera, Taught by: Dr. Quentin McAndrew.
4. MOOC material: *Soft Skills (SWAYAM)* Created by: IIT Roorke, Delivered by : SWAYAM, Taught by: Dr. Binod Mishra.

Extra Readings for Unit VI:

Journals:

1. Journal of Business Communication (JBC)
2. International Journal of Business Communication (IJBC)
3. Journal of Communication Management

Websites:

1. sloanreview.mit.edu
2. cw.iabc.com

Magazines:

1. Harvard Business Review
2. Inc. Magazine

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	1	2	2	1	2	2	2	1
CO2	3	3	2	2	3	2	2	3	2	3
CO3	2	2	2	3	2	2	3	1	3	2
CO4	2	2	3	2	2	3	2	3	1	3
CO5	3	3	3	2	3	3	2	2	1	2

1 – Low, 2 – Medium, 3 – Strong

CCPCF1/24 – DIGITAL MARKETING

The detailed syllabus for this course is given in the Regulation and Syllabus for Certification Course on Professional Competency in Finance

FMFC2/24 - FIXED INCOME SECURITIES MARKETS

Course Aim: This course aims at developing a broad and in-depth knowledge of the key fixed income instruments and markets. Throughout this, there are many exercises which test and assess candidates' knowledge, examine scenarios which will equip participants with practical skills in their day-to-day business activity.

Course Outcome: On successful completion of this course, students will be able to:

Pedagogical Methods Adopted: Flipped Learning- Blended Learning- Experiential Learning-

CO1	Develop a broad knowledge of fixed income markets and its credit products	L1 & L2
CO2	Evaluate the functioning of Central Government Securities Bonds	L2
CO3	Analyse the fundamentals of State Government Securities Bonds, Call Money Market and Corporate Debt Market	L5
CO4	Compare the uses of Commercial paper, Certificate of Deposits and Repos	L4 & L5
CO5	Appraise the trading mechanism and regulatory aspects of bond securities	L3 & L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Debt Instruments: Introduction and Overview of Debt Markets - Basic Concepts of Debt Instruments - Difference between Debt and Equity Instruments - Classifications of Debt Instruments - Key Players in the Debt Market - Issuance Process of Debt Instruments. Indian Debt Markets: Major Segments and Instruments in the Indian Debt Market - Regulatory Framework Governing Debt Markets - Secondary Market for Debt Instruments. International Debt Markets Overview - Recent Trends and Innovations in Debt Instruments.

Unit-II: Central Government Securities Bonds: Primary Issuance Process - Participants in Government Bond Markets - Constituent SGL Accounts - Concept of Primary Dealers - Satellite Dealers - Secondary Markets for Government Bonds - Settlement of Trades in G-Secs - Clearing Corporation - Negotiated Dealing System - Liquidity Adjustment Facility (LAF).

Unit-III: State Government Bonds: Gross Fiscal Deficit of State Governments and its Financing - Volume, Coupon Rates and Ownership Pattern of State Government Bonds. Call Money Markets: Participants in the Call Markets - Call Rates. Corporate Debt - Bond Market Segments - Issue Process - Issue Management and Book Building - Terms of a Credit Rating.

Unit-IV: Commercial Paper & Certificate of Deposits: Guidelines for CP Issue - Rating Notches for CPs - Growth in the CP Market - Stamp Duty - Certificates of Deposit- Repos: Repo Rate - Calculating Settlement Amounts in Repo Transactions - Advantages of Repos - Recent Issues in Repo Market in India - Secondary Market Transactions in Repos - Repo Accounting - Comparison of CP and CD Markets.

Unit-V: Bond Market Indices and Benchmarks: I-Bex: Sovereign Bond Index - NSE-MIBID/MIBOR - Trading Mechanism in the NSE-WDM - Description of the NSE WDM Trading System - Order Types and Conditions - Order Entry in Negotiated Trades Market -

Order Validation and Matching - Trade Management - Reports - Settlement - Rates of Brokerage. Regulatory and Procedural Aspects: G-Sec Act 2006 - SEBI (Issue and Listing of Debt Securities) Regulations 2008 and Market Practices and Procedures.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 40% and Problems - 60%

References:

Books:

1. Tuckman, B., & Serrat, A. (2022). *Fixed income securities: Tools for Today's Markets*. John Wiley & Sons.
2. Fabozzi, F. J., & Mann, S. V. (2012). *The Handbook of Fixed Income Securities, Eighth Edition*. McGraw Hill Professional.
3. Choudhry, M. (2010). *Fixed-Income Securities and Derivatives Handbook: Analysis and Valuation*. John Wiley & Sons.
4. BlackRock, I. (2023). *BlackRock's guide to Fixed-Income Risk Management*. John Wiley & Sons.
5. Huggins, D., & Schaller, C. (2024). *Fixed Income Relative Value Analysis: A Practitioner's Guide to the Theory, Tools, and Trades*. John Wiley & Sons.
6. Richardson, S. A. (2022). *Systematic fixed income: An Investor's Guide*. John Wiley & Sons.
7. Jarrow, R. (2023). *Modeling fixed income securities and interest rate options*. CRC Press.
8. Moyo, V. (2024). *Firm, equity asset, and fixed income securities valuation: Practical Examples and Case Studies for Accounting and Financial Analyst Students*. Palgrave Macmillan.

Online References:

1. MOOC Material: *Global Financial Markets and Instruments*, Created by: Rice University, Delivered by: [Coursera](#), Taught by: Arzu Ozoguz.
2. MOOC Material: *Introduction to Financial Engineering and Risk Management*, Created by: Columbia University, Delivered by: [Coursera](#), Taught by: Garud Iyengar and Ali Hirsu
3. MOOC Material: *An Introduction to Fixed Income Securities*, Created by Coursera Instructor Network, Delivered by: [Coursera](#), Taught by: Arkadi Avanesyan.

Extra Readings for Unit VI:

1. The Journal of Finance
2. The Review of Financial Studies
3. Journal of Financial Economics
4. Financial Times
5. Journal of Banking & Finance

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	3	2	3	2	2	3	1	1
CO2	3	3	2	3	3	3	3	2	3	1
CO3	2	2	3	2	1	1	1	2	2	3
CO4	3	3	1	3	3	3	3	3	3	3
CO5	2	3	3	1	3	2	2	3	2	1

1 – Low, 2 – Medium, 3 - Strong

FMCC5/24 - NSE SMART TRADING SIMULATION LAB

Course Aim: The main objective of the course is to obtain comprehensive knowledge about technical analysis. The course is also intended to teach the basics of technical analysis and various trading strategies.

Course Outcomes: After completing this course, they should be able to:

CO1	Recognise the strengths and weaknesses of technical analysis	L1 & L2
CO2	Analyze Charts and study various patterns	L4
CO3	Apply various Indicators and Oscillators	L3
CO4	Evaluate various trading strategies and theories	L4 & L5
CO5	Understand the importance of risk management	L2
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Technical Analysis & Candle Charts: Meaning of Technical Analysis - Price Discounts - Price Movements - Basic Assumption of Technical Analysis - Strengths and Weakness of Technical Analysis - Importance of Technical Analysis – Charts - Candlestick Analysis - Software and Tools Used for Technical Analysis

Unit II: Pattern Study: Meaning of Support and Resistance – Reason for Occurrence of Support and Resistance Zone - Change of Support to Resistance and Vice Versa – Importance of Support and Resistance Lines - Head and Shoulders - Head and Shoulders Top Reversal - Inverted Head and Shoulders - Head and Shoulders Bottom - Double Top and Double Bottom - Rounded Top and Bottom - Gap Theory - Common Gaps - Breakaway Gaps - Runaway/Continuation Gap - Exhaustion Gap - Island Cluster

Unit III: Major Indicators and Oscillators: Meaning, Uses and reasons for using Technical Indicators – Tips for using indicators - Types of indicators - Simple Moving Average - Exponential Moving Average – Oscillators - Relative Strength Index – Moving Average, Convergence/Divergence (MACD) – Multiple Indicators for Trading Signal.

Unit IV: Trading Strategies: Day trading - Advantages of Day Trading - Risks Associated with Risk Day Trading – Strategies - Strategies for Day Trading - Momentum Trading Strategies.

Unit V: Trading Psychology and Risk Management: Introduction to Risk Management - Components of Risk Management - Stop Loss - Analyze Reward Risk Ratio - Trail Stop Loss - Booking Profit - Uses of Stop Loss - Qualities of Successful Trader - Golden Rules of Traders - Do's and Don'ts in Trading - Rules to Stop Losing Money - Choosing the Right Market to Trade -Importance of Discipline in Trading- Techniques for Managing Trading Stress and Maintaining Emotional Control.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Marks: CIA – 25 and ESE – 75 (Out of 75, 45 marks for written and 30 marks for practical)
(The ESE Theory Examination would be conducted for 75 marks and converted for 45 marks)

References:

Books:

1. Murphy, J. J. (1999). *Technical analysis of the financial markets: A Comprehensive Guide to Trading Methods and Applications*. Penguin.
2. Schabacker, R. (2021). *Technical analysis and stock market profits*. Harriman House Limited.
3. Pring, M. J. (2002). *Technical analysis explained: The Successful Investor’s Guide to Spotting Investment Trends and Turning Points*. McGraw Hill Professional.
4. Aziz, A. (2024). *The Strategic Technical Analysis of the financial markets: An All-Inclusive Guide to Trading Methods and Applications*. Rose Gordons.
5. Dumiter, F. C., & Turcaş, F. M. (2023). *Technical analysis applications: A Practical and Empirical Stock Market Guide*.
6. Srinivasan, S. (2023). *Technical analysis: An Introduction*. Srinivasan Sankara Narayanan.

Online References:

1. MOOC Material: *Practical Guide to Trading Specialization*, Created by: Interactive Brokers, Delivered by: Coursera, Taught by: Mary MacNamara.
2. MOOC Material: *Practical Time Series Analysis*, Created by: The State University of New York, Delivered by: Coursera, Taught by: Tural Sadigov and William Thistleton.
3. MOOC Material: *Finance & Quantitative Modeling for Analysts Specialization*, Created by: University of Pennsylvania, Delivered by: Coursera, Taught by: Michael R Roberts.

Extra Readings for Unit VI:

1. Websites of NSE and BSE
2. Journal of Behavioral Finance
3. Journal of Financial Markets
4. Journal of Financial and Quantitative Analysis
5. Futures Magazine
6. Cogencis invest - Market: <https://iinvest.cogencis.com/>

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	2	2	2	2	3	2	3	2
CO2	3	2	2	2	3	2	2	2	2	2
CO3	3	3	3	2	3	2	3	3	3	2
CO4	3	2	3	3	3	3	2	3	3	3
CO5	2	3	2	2	3	2	3	3	2	3

1 – Low, 2 – Medium, 3 - Strong

FMCC6/24 – MERGERS, ACQUISITIONS AND CORPORATE RESTRUCTURING

Course Aim: The aim of this course is to give comprehensive idea about mergers, amalgamation and corporate restructuring to all the learners and encourage them to understand various activities and procedures and also the impact of various kinds of acquisition and restructuring modules. The course also aims to make students capable of taking decision on various kinds of restructuring proposal and merging and acquisition modules.

Course Outcome: At the end of this course the students would be able to:

CO1	Understand the nature and scope of mergers, acquisition and corporate restructuring	L1 & L2
CO2	Discover the different activities of corporate restructuring	L2 & L3
CO3	Estimating the value of corporate entity before and after amalgamation	L4 & L5
CO4	Evaluate the various legal framework for amalgamation and restructuring	L4 & L5
CO5	Recording transaction related to corporate restructuring and amalgamation	L3 & L4
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyse; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Mergers & Acquisitions: Definition and Significance of Mergers and Acquisitions - Types of Re-organisation - Internal Re-organisation - External Re-organisation - Stock Swap - Section 180 of the Companies Act, 2013 (which replaced Section 293 (1) (a) of the Companies Act, 1956) - Updates on the treatment and regulation of sick companies under the Insolvency and Bankruptcy Code, 2016 - Sick Companies - Benefits of Re-organisation - Re-organisation Costs - Due Diligence.

Unit II: Scheme of Compromise, Arrangement or Re-construction: Definitions - Company – Arrangement - Unsecured Creditors - Appointed Date and Effective Date - Power to compromise or make arrangements with creditors and members - NCLT's Power to Enforce Compromise or Arrangement - D. NCLT's Power for Facilitating Reconstruction or Amalgamation - Dissenting Share-holders - Amalgamation in National Interest by Central Government.

Unit III: Buy-back of Securities: Regulation and Definitions – Associate – Control - Small Share-holder - Tender Offer - Permitted Methods of Buy-back - Provisions in the Companies Act, 2013 - Updates on SEBI (Buy-back of Securities) Regulations, 2018 - Buy-back through Tender Offer - Escrow Account in Tender Offer - Payment to Security holders in Tender Offer - Buy-back from Open Market - Through stock exchange - Through Book-building Process - General Obligations - Obligations of Company - Obligations of Merchant Banker.

Unit IV : Substantial Acquisition of Shares & Takeovers: Regulation and Definitions - Shares – Acquirer – Control - Target Company - Persons Acting in Concert – Associate - Immediate Relative - Offer Period - Tendering Period - Compulsory Open Offer - Substantial Acquisition of Shares or Voting Rights - Acquisition of Control - Indirect Acquisition - Voluntary Offer Size - Offer Price - Mode of Payment - General Exemptions - Exemptions by SEBI - Hostile takeovers and defense strategies - Leverage Buy Outs (LBO).

Unit V: Accounting for Mergers & Acquisitions: Regulatory Framework - AS 14: Accounting for Amalgamations – Definitions - Types of Amalgamations - Pooling of Interests Method of Accounting - Purchase Method of Accounting – Consideration – Reserves – Goodwill - Profit & Loss a/c Balance – Disclosures - Amalgamation after Balance Sheet Date - AS 10: Accounting for Fixed Assets - AS 26: Intangible Assets – ASI - Accounting for Taxes on Income in case of an Amalgamation - Ind AS 103: Business Combinations - Ind AS 16: Property, Plant, and Equipment - Ind AS 38: Intangible Assets - Ind AS 12: Income Taxes - Transition from AS to Ind AS for Mergers & Acquisitions Accounting - Comparative analysis of AS and Ind AS standards.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

<p>Weightage in the Question Paper: Theory – 80% and Problems - 20%</p>
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References:

Books:

1. Gaughan, P. A. (2017). *Mergers, acquisitions, and corporate restructurings*. John Wiley & Sons.
2. Sherman, A. J., Hart III, M. A., & Berneman, L. P. (2011). *Mergers and Acquisitions from A to Z*. Amacom.
3. Godbole, P. G. (2013). *Mergers, Acquisitions and Corporate Restructuring, 2nd Edition*. Vikas Publishing House.
4. DePamphilis, D. (2011). *Mergers, acquisitions, and other restructuring activities: An Integrated Approach to Process, Tools, Cases, and Solutions*. Academic Press.
5. Chandrasekaran, N., & Ananthanarayanan, P. (2024). *Taxmann's Strategic Management – Thorough Exploration of Strategic Management*. Taxmann Publications Private Limited.
6. Banks, E. (2023). *Finance: The Basics*. Taylor & Francis.
7. Cooper, C. L., & Finkelstein, S. (2023). *Advances in mergers and acquisitions*. Emerald Group Publishing.

Online References:

1. MOOC Material: *Finance of Mergers and Acquisitions: Designing an M&A Deal*: Created by: University of Illinois at Urbana-Champaign, Delivered by: Coursera, Taught By: Heitor Almeida.
2. MOOC Material: *Corporate Financial Decision-Making for Value Creation*: Created by: The University of Melbourne, Delivered by: Coursera, Taught By: Paul Kofman.
3. MOOC Material: *Finance of Mergers and Acquisitions: Valuation and Pricing*: Created by: University of Illinois at Urbana-Champaign, Delivered by: Coursera, Taught By: Heitor Almeida.

Extra Readings for Unit VI:

1. Journal of Corporate Finance
2. Strategic Management Journal
3. Journal of Financial Economics
4. Journal of Business Venturing
5. Investment Week
6. Bloomberg Businessweek

Mapping with Programme Outcomes										
Cos	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	2	2	2	2	3	2	2	1
CO2	3	3	3	2	3	3	2	2	3	1
CO3	2	2	1	2	2	2	2	3	2	3
CO4	3	3	3	3	3	3	3	2	3	3
CO5	1	3	2	1	3	3	2	3	2	2

1 – Low, 2 – Medium, 3 – Strong

FMCC7/24 - GOODS AND SERVICES TAX

Course Aim: This course aims to provide students with a comprehensive understanding of the Goods and Services Tax (GST) system in India. It covers the structure, administration, and practical application of GST in various business scenarios, equipping students with the knowledge and skills necessary for effective GST compliance and management

Course Outcome: At the end of this course the students would be able to:

CO1	Develop a broad knowledge of the GST framework and its key components.	L1 & L2
CO2	Evaluate the registration process and compliance requirements under GST	L2 & L3
CO3	Analyze the calculation and levy of GST on goods and services, including the Input Tax Credit (ITC) mechanism	L4 & L5
CO4	Compare and contrast the different types of GST returns and their filing procedures	L4 & L5
CO5	Appraise the impact of GST on various sectors and understand recent developments and amendments in GST law	L2 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyse; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Introduction to GST: Overview and Evolution of GST in India - Objectives and Benefits of GST- Key Definitions under GST Law - Structure of GST: CGST, SGST, IGST, and UTGST -Scope and Applicability of GST.

Unit-II: GST Registration and Compliance: Registration Process under GST: Types of Registration, Eligibility, and Documentation - Voluntary and Mandatory Registration - Cancellation and Revocation of Registration - Compliance Requirements: Maintenance of Accounts, Records, and Documentation - Returns Filing: Types of Returns, Due Dates, and Filing Process.

Unit-III: Levy and Collection of GST: Taxable Event under GST: Supply of Goods and Services - Time of Supply, Place of Supply, and Value of Supply - Rate Structure and Classification of Goods and Services - Input Tax Credit (ITC): Eligibility, Conditions, and Utilization - Reverse Charge Mechanism and Composition Scheme.

Unit-IV: GST Returns and Payment: Types of GST Returns: GSTR-1- GSTR-2- GSTR-3 - GSTR-3B - GSTR-9, etc. Filing Procedures and Due Dates for Various Returns -Payment of GST: Modes, Due Dates, and Interest/Penalties for Late Payment- Reconciliation of Returns and Matching of ITC - Refunds under GST: Procedures and Documentation.

Unit-V: Sectoral Impact and Recent Developments in GST: Impact of GST on Different Sectors: Manufacturing, Services, Real Estate, E-commerce, and SMEs - GST Audit and Assessment - Anti-profiteering Measures under GST - Recent Amendments and Updates in GST Law.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 70% and Problems - 30%

References

Books:

1. Rao, R. K., Mukherjee, S., & Bagchi, A. (2019). *Goods and services tax in India*. Cambridge University Press.
2. Sharma, S., & Anand, S. (2020). *Goods and services tax*. VK Global Publications.
3. Agarwal, H. M. P. V. (2020). *Goods and services tax (G.S.T.)*. Sahitya Bhawan Publications.
4. Datey, V. (2024). *Taxmann's GST Ready Reckoner [Finance Act 2024]*. Taxmann Publications Private Limited.
5. Harvin, H. (2023). *GST in a Nutshell*. Henry Harvin.

Online References:

1. MOOC Material: **GST - Genesis and imposition!**, Created by: PwC India, Delivered by: Coursera, Taught by: Tax Academy.
2. MOOC Material: **GST - when, where, who and how much?**, Created by: PwC India, Delivered by: Coursera, Taught by: Tax Academy.
3. MOOC Material: **GST - Undertaking compliances**, Created by: PwC India, Delivered by: Coursera, Taught by: Tax Academy.

Extra Readings for Unit VI:

1. Journal of International Accounting, Auditing and Taxation
2. Journal of Accounting and Public Policy
3. Journal of Public Economics
4. Tax Notes International
5. Business Today
6. The Economic Times

Mapping with Programme Outcomes										
Cos	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	3	2	3	3	3	3	3	1
CO2	2	3	2	2	3	2	2	2	2	1
CO3	3	2	3	3	1	3	2	2	2	3
CO4	3	3	2	2	3	3	3	3	3	3
CO5	3	3	3	3	3	2	3	3	2	1

1 – Low, 2 – Medium, 3 – Strong

FMEC3/24 – MANAGERIAL ECONOMICS

Course Aim: The aim of this course is to study the application of microeconomic concepts and analytical tools and to use for corporate resource allocation, to assess demand and cost determination, industry positioning, and to explain the pricing mechanisms.

Course Outcome: On completing the course, the student would be able to

CO1	Gain knowledge and provide tools and techniques to make effective economic decisions under conditions of risk and uncertainly.	L1 & L2
CO2	Determine the factors such as demand and production for pricing criteria.	L1 & L3
CO3	Intend the understanding of product and factor market.	L4
CO4	Analyze the macroeconomic situations	L3 & L4
CO5	Design competition strategies, including costing, pricing, product differentiation, and market environment according to the natures of products and the structures of the markets.	L3 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted-Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction: Nature and Subject Matter of Economics - Classical and Modern View - Robin's Contribution and its Critical Estimate - Economics as Positive Science - Normative science - Applied Science and Arts - Micro and Macro Economics - Introduction to Behavioral Economics and its Application in Managerial Decisions.

Unit II: Producer Behavior and Consumer Behavior: Market – Demand and Supply – Determinants – Market Equilibrium – Elasticity of Demand and Supply –Problems of Production - Laws of Returns and their Casual and Effectual Significance - Analysis of Cost – Short-run and Long-run Cost Function – Relation between Production and Cost Function.
Consumer Behaviour: Theory of Consumer Choice - Behavioral Biases and Decision Making.

Unit III: Product and Factor Market: Product Market - Price Determination under Different Market Conditions – Different Market Structures – Firm's Equilibrium and Supply – Market Efficiency – Economic Costs of Imperfect Competition – Factor Market – Land, Labour and Capital – Demand and supply – Determination of Factor Price – Interaction of Product and Factor Market – General Equilibrium and Efficiency of Competitive Markets - Role of Technology and Innovation in Product and Factor Markets

Unit IV: Macro Economics: National Income and Economics welfare - Relation Between Size and Distribution of National Income and Economic Welfare - Business cycles - Theories of Business Cycle - The Problem of Unified Theory of Business Cycle - Global Macroeconomic Trends and Their Impact on Business.

Unit V: Supply and Role of Money: Keynesian Theory of Employment - The Problem of Full Employment - Unemployment and its impact – Okun's law – Inflation and the Impact – Reasons for Inflation – Types of Inflation - Inflation Vs Unemployment Tradeoff – Phillips curve –Supply side Policy and management- Money market- Demand and supply of money – money-market equilibrium and national income – the role of monetary policy,

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Froeb, L. M., Shor, M., McCann, B. T., & Ward, M. R. (2018). *Managerial economics: A Problem Solving Approach*. Cengage India
2. Mandel, M. (2024). *Economics: The Basics*, McGraw Hill, New Delhi.
3. Samuelson, W. F., Marks, S. G., & Zagorsky, J. L. (2024). *Managerial Economics*, 10th Edition, John Wiley & Sons.
4. Lila J. Truett (2022), *Managerial Economics*, 8th Edition, Wiley India, Noida.
5. Tamali Chakraborty (2021). *Micro Economics*, 6th Edition, Wiley India, Noida.
6. Dominick Salvatore and Siddhartha Rastogi (2020), *Managerial Economics: Principles and Worldwide Applications*, Oxford University Press.

Online References:

1. Swayam Course Material: *Economics of Banking and Finance Markets*, Created by Prof. Sukumar Vellakkal , IIT Kanpur.
2. MOOC Material: *Introduction to Managerial Economics* (edX), Created by: Indian Institute of Management, Bangalore, Delivered by: EdX, Taught by: Subhashish Gupta
3. MOOC Material: *Econ-1: Principles of Economics* (Stanford Online), Created by: Stanford University, Delivered by: Lagunita Stanford Online, Taught by: John B. Taylor
4. MOOC Material: *Principles of Economics with Calculus* (edX), Created by: Caltech, Delivered by: EdX, Taught by: Antonio Rangel

Extra Readings for Unit VI

1. Journal of Macroeconomics
2. Journal of Economic Perspectives
3. Journal of Monetary Economics
4. International Monetary Fund (IMF) Reports
5. OECD Economic Outlook
6. RBI Monetary Policy
7. National Economic Survey by NSSO

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	1	2	2	3	3	2	3	2	1
CO2	3	3	1	2	2	2	2	1	3	2
CO3	2	2	3	3	3	3	3	1	3	3
CO4	2	2	3	3	2	2	3	3	3	2
CO5	3	3	3	2	3	3	2	3	1	2

1 – Low, 2 – Medium, 3 - Strong

FMEC4/24 - AI / ML FOR FINANCIAL SECTOR

Course Aim: The main aim of the course is to gain understanding on the need and significance of Machine Learning for various technology requirements. The course also aims to identify, formulate, and implement a machine learning project. Various applications of machine learning in all business aspects would also be explored.

Course Outcomes: After completing this course, they should be able to:

CO1	Interpret the basic definition and need for machine learning.	L1 & L2
CO2	Compute the basic mathematics for machine learning.	L2 & L3
CO3	Assess the core aspects behind any machine learning project.	L3 & L5
CO4	Develop a machine learning project.	L6
CO5	Facilitate potential applications of machine learning in real time.	L3 & L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted-Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Basics Concepts of Machine Learning: ML Definition - Various kind of problems tackled using ML - Some standard learning tasks - Learning Stages - Learning Scenarios – Generalization - Data - Models and Learning - Parameter Estimation - Probabilistic Modelling and Inference - Directed Graphical Models - Setting up your working Environment - Supervised vs Unsupervised Learning - Cross Validation - Evaluation metrics. Introduction to Ethical AI and Fairness in Machine Learning

Unit-II: Advanced Concepts of Machine Learning: Fundamentals of statistical learning theory - Convergence and learnability - Kullback-Leibler Information - Model selection and the bias variance trade-off - Cross-validation – Regularization - Generative vs Discriminative models - Neural Networks - The Perceptron - Feed-Forward Neural Networks - Back-propagation and stochastic gradient descent - Explainable AI (XAI) and its Applications in Finance

Unit-III: Supervised Learning: Linear Regression - Parametric Problems - Decision trees - Random forests – Classifications - K Nearest Neighbors - Support Vector - Naïve Bayes. Ensemble Learning Methods and their Applications in Finance

Unit-IV: Unsupervised Learning: Clustering - K-Means clustering - Dimensionality Reduction - Principal Component Analysis – DBSCAN - Semi-supervised Learning - Reinforcement Learning - Introduction to Self-Supervised Learning - Application of GANs (Generative Adversarial Networks) in Finance. Anomaly Detection in Financial Transactions

Unit-V: Advanced Neural Networks: Convolutional Neural Networks - Recurrent Neural Networks - Long Short-Term Memory (LSTM) – Autoencoders - Applying Learning to Real problems - Financial Time Series Forecasting - Scoring Opinion and Sentiments – Digital Currency Price Prediction - Predicting Financial Market Movements - Application of Transformers in Financial Modeling.

Unit VI: Current Contours (for Continuous Internal Assessment Only) - Contemporary Developments Related to the Course during the Semester Concerned.

**Marks: CIA – 25 and ESE – 75 (Out of 75, 45 marks for written and 30 marks for practical)
(The ESE Theory Examination would be conducted for 75 marks and converted for 45 marks)**

References:

Books:

1. Gray, W. (2019). *Machine Learning with Python: An Introduction to Data Science with Useful Concepts and Examples, Step by Step, Learning to Use Python*. United States: Amazon Digital Services LLC - KDP Print US.
2. Cooper, S. (2018). *Machine Learning for Beginners: An Introduction for Beginners, Why Machine Learning Matters Today and How Machine Learning Networks, Algorithms, Concepts and Neural Networks Really Work*. (n.p.): Steven Cooper.
3. Dixon, M. F., Halperin, I., Bilokon, P. A. (2020). *Machine Learning in Finance: From Theory to Practice*. Germany: Springer International Publishing.
4. De Las Heras Ballell, T. R. (2023). AI in the Financial Sector. In Cambridge University Press eBooks.
5. Navar,S. R., (2022). Introduction to AI/ML and Data Science. Bluerose Publishers Pvt. Ltd.
6. Mueller, J. P., Massaron, L. (2021). Machine Learning For Dummies. United States: Wiley.

Online References:

1. MOOC Material: *Fundamentals of Machine Learning in Finance*, Created by: Coursera, Taught by: Igor Halperin
2. MOOC Material: *A Basic Course in Machine Learning for All*, Created by: Swayam, Taught by: Sumitra Padmanabhan
3. MOOC Material: *Machine Learning*, Created by: Stanford, Delivered by: [Coursera](#), Taught by: Andrew Ng.
4. MOOC Material: *Machine Learning for Everyone*, Created by: Deeplearning.AI, Delivered by: Coursera, Taught by: Andrew Ng.
5. MOOC Material: *Introduction to Artificial Intelligence*, Created by: IBM, Delivered by: [Coursera](#), Taught by: Rav Ahuja.

Extra Readings for Unit VI

1. Journal of Artificial Intelligence Research
2. International Journal of Machine Learning and Cybernetics
3. Journal of Finance and Data Science
4. IIF-EY Annual Survey Report on AI/ML Use in Financial Services
5. FinTech Magazine

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	2	3
CO2	3	2	3	2	3	1	2	3	3	2
CO3	3	3	2	3	3	3	3	3	3	2
CO4	2	3	3	3	3	3	2	1	2	3
CO5	3	3	3	3	3	3	3	3	1	2

1 – Low, 2 – Medium, 3 – Strong

FMSC2/24 - ENTREPRENEURSHIP DEVELOPMENT

Course Aim: This course aims to equip students with the knowledge and skills necessary to become successful entrepreneurs. It covers the entrepreneurial process including ideation, business planning, resource mobilization and managing growth.

Course Outcomes: At the end of the course, the students would be able to

CO1	Understand the fundamental concepts of entrepreneurship and its importance in economic development.	L1 & L2
CO2	Identify and evaluate business opportunities and develop a viable business plan	L3 & L4
CO3	Analyse various sources of finance and funding options for startups	L2 & L5
CO4	Understand the legal and regulatory framework for starting and operating a business	L3 & L4
CO5	Develop strategies for managing growth and scaling up the business	L4 & L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Self Learning and Peer learning.

Unit I: Introduction to Entrepreneurship: Entrepreneurship Concepts - Definition - Types of Entrepreneurs - Characteristics and Skills of Entrepreneurs - Role of Entrepreneurship in Economic Development. **Entrepreneurial Process:** Idea Generation - Opportunity Recognition - Feasibility Analysis - Business Models - Entrepreneurial Environment - Factors Affecting Entrepreneurship - Role of Government and Other Institutions in Promoting Entrepreneurship.

Unit II: Business Planning: Business Idea and Opportunity Assessment - Sources of Business Ideas - Techniques for Generating Ideas - Screening and Evaluating Ideas. **Business Plan Development:** Components of a Business Plan - Writing a Business Plan - Presenting a Business Plan; Market Research - Conducting Market Research - Analyzing Market Trends - Understanding Customer Needs.

Unit III: Financial Planning and Resources: Sources of Finance - Self-financing - Equity Financing - Debt Financing - Venture Capital - Angel Investors. **Financial Management for Startups** - Budgeting - Financial Forecasting - Managing Cash Flows. **Government Schemes and Support:** Government Policies - Financial Assistance Programs.

Unit IV: Legal and Regulatory Framework: Legal Issues in Starting a Business - Types of Business Entities - Registration and Licensing - Intellectual Property Rights. **Taxation for Entrepreneurs** - Understanding Tax Obligations - Tax Planning; Regulatory Compliance - Labor Laws - Environmental Regulations - Consumer Protection Laws.

Unit V: Managing Growth and Scaling Up: Growth Strategies - Organic Growth - Mergers and Acquisitions - Strategic Alliances - Managing Operations - Operational Planning - Supply Chain Management - Quality Management. **Innovation and Change Management:** Fostering Innovation - Managing Change - Leadership and Team Building.

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Drucker, P. F. (1985). *Innovation and entrepreneurship: Practice and Principles*. HarperCollins Publishers.
2. Gompers, P., & Sahlman, W. (2023). *Entrepreneurial Finance*. (5th Edition). Cengage Learning.
3. Neck, H. M., Neck, C. P., & Murray, E. L. (2023). *Entrepreneurship: The Practice and Mindset* (2nd Edition). SAGE Publications.
4. Spinelli, S., & Adams, R. (2023). *New Venture Creation: Entrepreneurship for the 21st Century* (11th Edition). McGraw-Hill Education.
5. Ries, E. (2022). *The lean startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. 10th Edition. Random House, USA
6. Soltanifar, M., Hughes, M., & Göcke, L. (2020). *Digital Entrepreneurship*. Springer Nature.

Online References:

1. Swayam Course Material: *Entrepreneurship*, Created by: C Bhaktavatsala Rao, IIT Madras.
2. MOOC Material: *The entrepreneur's guide for beginners*, Created by: Universitat de Barcelona, Delivered by: Coursera, Taught by: Sergio Villanueva Baselga.
3. MOOC Material: *Entrepreneurship Specialization*, Created by: University of Pennsylvania, Delivered by: Coursera, Taught by: Kartik Hosanagar.
4. MOOC Material: *Startup Entrepreneurship Specialization*, Created by: Technion, Delivered by: Coursera, Taught by: Dadi Perlmutter

Extra Readings for Unit VI

1. Harvard Business Review (HBR)
2. Journal of Innovation and Entrepreneurship
3. International Entrepreneurship and Management Journal
4. Entrepreneur Magazine
5. Forbes
6. Bloomberg Business Week

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	1	3	3	2	3	2	1
CO2	3	3	1	2	2	2	3	2	3	2
CO3	2	2	3	3	3	3	3	1	2	3
CO4	2	1	3	3	2	2	2	3	3	2
CO5	3	3	3	2	3	3	3	3	2	2

1 – Low, 2 – Medium, 3 - Strong

CCPCF2/24 – INSURANCE MARKETING

The detailed syllabus for this course is given in the Regulation and Syllabus for Certification Course on Professional Competency in Finance

FMFC3/24 - SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Course Aim: The aim of this course is to capture the essence of modern developments in investments and provides a guided tour of the intricate and complex world of investments.

Course Outcome: On completing the course, the student would be able to

CO1	Explain the various investment avenues, types of investors, constraints, and goals of investors and describe the functioning of primary and secondary markets, and analyze trading mechanisms including money markets, bond markets, and stock markets	L2 & L4
CO2	Examine theories of technical analysis such as Dow Theory and Elliot Wave Theory, and apply machine learning in market analysis	L3 & L4
CO3	Perform fundamental analysis by examining financial statements, financial ratios, and valuation techniques for common stocks	L3 & L4
CO4	Apply modern portfolio theory, equilibrium models, and behavioral portfolio theory to optimize investment portfolios	L4 & L5
CO5	Evaluate the performance of managed funds, including active vs. passive management, and understand the role of robo-advisors and sustainable investment funds	L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Investment Avenues: Introduction - Types of Investors - Constraints - Goals of Investors - Primary and Secondary Markets - Trading in Secondary Markets - Money Market - Repos and Reverse Repos - Bond Market - Common Stocks - Initial Public Offerings (IPOs) - Private Placements - Electronic Communication Networks (ECNs) - Money Market Mutual Funds - Interest Rate Futures - Stock Buybacks and Dividends - Cryptocurrencies and Digital Assets - Blockchain Technology - Hedge Funds.

Unit II: Theories of Technical Analysis: Introduction and Principles of Dow Theory - Significance of Dow Theory - Problems with Dow Theory - Introduction and Fundamental Concept of Elliot Wave - After Elliot Capital Market Efficiency: Introduction - Market Efficiency - Departures from the EMH - Sentiment Indicators - Machine Learning Applications in Market Analysis.

Unit III: Fundamental Analysis: Introduction - Analysis of Financial Statements - Financial Ratios (Return, Operating and Profitability Ratios) - Valuation of Common Stocks - Technical Analysis - Cash Flow Analysis - Earnings Quality - Discounted Cash Flow (DCF) Analysis - Relative Valuation Techniques.

Unit IV: Modern Portfolio Theory: Introduction - Diversification and Portfolio Risks - Equilibrium Models - Multifactor Models and CAPM - Arbitrage Pricing Theory - Modern Portfolio Theory and Efficient Market Hypothesis - Behavioral Portfolio Theory - Black-Litterman Model - Risk Parity - Machine Learning in Portfolio Optimization.

Unit V: Investment Management: Introduction - Investment Companies - Active vs. Passive Portfolio Management - Cost of Management - Entry/Exit Loads Fees - Net Asset Value. Investment Companies: Types - Classification of Funds - Performance Assessment of Managed

Funds - Smart Beta Funds - Performance Attribution Analysis - Sustainable and Responsible Investment (SRI) Funds - Impact Investing - Robo-Advisors - Automated Portfolio Management.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 70% and Problems - 30%

References:

Books:

1. Graham, B. (2003). *The intelligent investor: The Definitive Book on Value Investing*. HarperBusiness.
2. Graham, B., & Dodd, D. (2008). *Security Analysis: Sixth Edition*, Foreword by Warren Buffett. McGraw-hill.
3. Leeds, S., Reilly, F., & Brown, K. (2024). *Investment analysis and portfolio management*. South-Western College Publishing. United States
4. Kolari, J. W., Liu, W., & Pynnönen, S. (2024). *Professional Investment Portfolio Management: Boosting Performance with Machine-Made Portfolios and Stock Market Evidence*. Palgrave Macmillan.
5. Ambika Prasad Dash. (2021). *Security Analysis and Portfolio Management* (2nd ed.). Wiley India.
6. Kevin (2022) *Security analysis and portfolio management (3rd ed.)*. PHI Learning.
7. Michael Dempsey, (2020), *Investment Analysis – An Introduction to Portfolio Theory and Management*, New York: Routledge.

Online References:

1. MOOC Material: *Investment Analysis & Portfolio Management course*, Delivered by Udemy and Created and Taught by Satyendra Singh (NCFM and NSIM certified)
2. MOOC Material: *Security Analysis & Portfolio Management*, Created by IIT Roorkee, Delivered by SWAYAM and Taught by Prof. J. P. Singh
3. MOOC Material: *Investment and Portfolio Management Specialization*, Created by Rice University, Delivered by Coursera and Taught by Arzu Ozoguz.
4. MOOC Material: *Investment Management*, Created by IIT Kharagpur, Delivered by SWAYAM and Taught by Abhijeet Chandra

Extra Readings for Unit VI:

1. Forbes
2. The Wall Street Journal (WSJ)
3. Financial Times (FT)
4. Journal of Financial Economics
5. Seeking Alpha

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	3	2	2	3	1	3	2	2
CO2	2	3	2	2	2	2	3	2	1	2
CO3	3	2	3	2	3	2	2	3	3	3
CO4	3	2	3	3	3	3	3	3	3	2
CO5	3	3	2	2	3	3	1	2	2	2

1 – Low, 2 – Medium, 3 - Strong

FMCC8/24 - FOREIGN EXCHANGE MANAGEMENT

Course Aim: This course aims to understand how the foreign exchange market operates, to understand the principles of Currency valuation & explain techniques that can be used to hedge foreign exchange risk, to create and understanding on foreign exchange management.

Course Outcomes: At the end of the course, the students would be able to

CO1	Describe and define the role of currency markets and its techniques	L1 & L2
CO2	Examine the organization of the exchange traded currency futures	L2 & L3
CO3	Apply the strategies of currency futures	L5
CO4	Appraise the clearing, settlement and accounting treatment of currency futures	L4 & L5
CO5	Evaluate the regulatory framework for currency derivatives	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Currency Markets: History of foreign exchange markets - Major currency pairs - Overview of international currency markets - Basics and Peculiarities of currency markets in India - Settlement or value date - Over-the-Counter (OTC) forward market - Exchange rate arithmetic - Cross rate - Impact of market economics on currency prices - Economic indicators - Digital Currencies and their Impact - Role of Central Banks in FX Markets - International Monetary Systems - Currency Pegs and Bands - Political Risk and Currency Markets.

Unit II: Exchange Traded Currency Futures: Currency futures - Spot price - Futures price - Contract cycle - Value date/Final settlement date - Expiry date - Contract size - Initial margin - Marking-to-market - Rationale behind currency futures - Standard items in a futures contract - Evolution and recent developments in currency futures in India - Impact of technological advancements on currency futures trading. Futures and forward contracts - Advantages of futures contracts - Limitations of futures contracts - Interest rate parity and pricing of currency futures.

Unit III: Strategies Using Currency Futures: Role of speculation in futures markets - Hedging using currency futures - Concept of Arbitrage - Use of Arbitrage in Currency Futures Markets - Surveillance systems and procedures of exchanges - Risk Management Strategies in Currency Futures - Volatility Trading using Currency Futures.

Unit IV: Clearing, Settlement, Risk Management, Accounting and Taxation in Currency Futures: Clearing entities - Clearing mechanism - Settlement mechanism - Risk management measures - Concept of margin requirements - Accounting treatment for derivative contracts - Taxation of derivative transaction in securities - Tax treatment of profit/loss on derivative transaction in securities - Innovations in Clearing Technologies.

Unit V: Regulatory Framework for Currency Derivatives: Contracts (Regulation) Act, 1956 [SC(R)A] - Features of Securities and Exchange Board of India Act, 1992 - Recommendations of the RBI-SEBI Standing Technical Committee on Exchange Traded Currency and Interest Rate Derivatives - Regulatory framework for Clearing Corporations - Codes of Conduct and

Investor Protection Measures - Grievance Redressal Mechanism for investors - Arbitration mechanism at exchanges.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 80% and Problems-20%

References:

Books:

1. Murphy, J. J. (1999). *Technical analysis of the financial markets: A Comprehensive Guide to Trading Methods and Applications*. Penguin.
2. Donnelly, B. (2019). *The art of currency trading: A Professional’s Guide to the Foreign Exchange Market*. John Wiley & Sons
3. Gautam, A., Jaiswal, T., & Keshari, A. (2023). *International financial management*. PHI Learning Pvt. Ltd.
4. Iqbal, A. S. (2022). *Foreign exchange: Practical Asset Pricing and Macroeconomic Theory*. Palgrave Macmillan.
5. Kochhar, S. (2021). *Reporting & Compliances under Indian Foreign Exchange Laws (FEMA & Allied Laws)*.
6. Jeevanandam, C. (2020). *Foreign exchange & Risk management*. Sultan Chand & Sons.
7. Oxelheim, L., Alviniussen, A., & Jankensgard, H. (2020). *Corporate Foreign Exchange Risk Management*. John Wiley & Sons.

Online References:

1. MOOC Material: *Foreign Exchange market*, Created by: Indian Institute of Management Bangalore (IIMB), Delivered by: Swayam, Taught by: P C Narayan.
2. MOOC Material: *Foreign Exchange Market Fundamentals*, Delivered by: Udemy, Taught by: Anastasios Roumeliotis.
3. MOOC Material: *Forex - Trading Around the World*, Delivered by: Coursera, Taught by: Jeff Praissman
4. MOOC Material: *Foreign Exchange Markets: Concepts, Instruments, Risks and Derivatives*, Created by Indian Institute of Management Bangalore (IIMB), Delivered by IIMB, Taught by Professor PC Narayan

Extra Readings for Unit VI:

1. Global Finance Magazine
2. FX Week
3. The Economist
4. Journal of International Money and Finance
5. Journal of Derivatives

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	1	3	3	3	3	3	1	2
CO2	2	3	3	2	3	2	3	2	2	1
CO3	1	2	2	3	1	3	1	2	3	3
CO4	3	3	2	3	3	1	3	3	2	3
CO5	3	3	3	3	3	3	2	3	3	1

1 – Low, 2 – Medium, 3 - Strong

FMCC9/24 - BUSINESS RESEARCH METHODS

Course Aim: The course aims to give students a broad understanding of research methodology, including qualitative and quantitative methods. The course also aims to give students skills for critical reading of research literature and for preparing them to do their main project.

Course Outcomes: At the end of course, the students would be able to

CO1	Describe the nature and scope of Business Research methods	L1 & L2
CO2	Appraise the probability and non-probability sampling methods	L2 & L3
CO3	Evaluate the various methods of primary and secondary data collection	L5
CO4	Adapt the data analysis through statistical software	L4 & L5
CO5	Devise the oral and written report preparation	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem-Based Learning

Unit I: Introduction to Business Research: Meaning – Types of Research – **Steps in Research**– Research Applications in Business Decisions – Features of a Good Research – Formulation of the Research Problem - Literature **Review: Importance, Process, and Techniques** - Development of the Research Hypotheses – Types of Hypotheses- Research Design: Exploratory and Descriptive, Causal Research Design- Ethics in Business Research.

Unit II: Sampling Methods: Sampling Concepts – Sample Vs Census – Sampling Vs Non-Sampling Error – Sampling Design – Probability Sampling Design – Non-probability Sampling Design – Determination of Sample Size - Impact of sampling bias and its impact on research outcomes

Unit III: Data Collection and Data Processing: Types of Data: Primary Data, Secondary Data, Qualitative Data, Quantitative Data - Methods of Data Collection: Primary Data Collection Methods: Interviews, Questionnaires, Surveys, Observations - Secondary Data Sources: Government Department Records, Organisational Records, Journals, Books, Online Databases. Construction of Questionnaires and Schedules - Designing Effective Questionnaires - Validation - Pilot Study. Processing Data - Presentation of Data - Diagrammatic Representation - Summarization of Data. Scaling and Its Types: Introduction to Scaling, Types of Scales, Scaling Techniques. Introduction to High-Frequency Data Sources, Utilization of Web Scraping.

Unit IV: Data Analysis Through Statistical Software (Analysis Procedures and Interpretation of Results Only): Testing of Hypotheses- Hypothesis Testing Process, Significance Levels, Inferential Statistics: Confidence Intervals, t-tests (One-sample, Two-sample), z-tests, Parametric Tests - Analysis of Variance (ANOVA), Non-Parametric Tests - Chi-Square Test, Mann-Whitney U Test, Kruskal-Wallis Test, Multivariate Analysis: Multiple Regression & Correlation, Factor Analysis, Discriminant Analysis, Cluster Analysis - Introduction to Machine Learning Techniques- Use of Python/R for Data Analysis - Data Visualization Techniques with Tableau/Power BI: Creating Dashboards, Interactive Visualizations, Advanced Chart Types. Time Series Analysis: Components of Time Series. Predictive Analytics: Regression Models. Introduction to Deep Learning: Text Mining and Sentiment Analysis.

Unit V: Report Writing: Importance of Report Writing – Types of Research Report – Report Preparation and Presentation – Report Structure – Report Formulation – Guidelines for Effective Documentation – Oral Presentation – Plagiarism and Ethical Writing Practices.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

30% - Problems and Interpretation of Results from Statistical Software, 70% - Theory

References:

Books:

1. Cooper, D. R., & Schindler, P. S. (2013). *Business research methods*. McGraw-Hill Education.
2. Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications, Incorporated.
3. Verma, R., Verma, S., & Abhishek, K. (2024). *Research methodology*. Booksclinic Publishing.
4. Backhaus, K., Erichson, B., Gensler, S., Weiber, R., & Weiber, T. (2023). *Multivariate analysis: An Application-Oriented Introduction*. Springer Nature.
5. Dubey, U. K. B., & Kothari, D. P. (2022). *Research methodology: Techniques and Trends*. CRC Press..
6. Aityan, S. K. (2022). *Business Research Methodology: Research Process and Methods*. Springer Nature.
7. Leavy, P. (2022). *Research design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches*. Guilford Publications.

Online References:

1. MOOC Material: *Fundamentals of Research (Major)*, Created by: Aligarh Muslim University Delivered by SWAYAM, Taught by: By Prof. Asma Parveen.
2. MOOC Material: *Research Methodology and Statistical Analysis*, Created by: Indira Gandhi National Open University, Delivered by: SWAYAM,, Taught by: Prof (Dr) Subodh Kesharwani.
3. MOOC Material: *Introduction to Research Methods*, Created by: Indira Gandhi National Open University, Delivered by: SWAYAM, Taught by: Dr. Sadananda Sahoo
4. MOOC Material: *Quantitative and Mixed Methods Research for Management*, Created by: KIIT (Deemed to be) University Bhubaneswar, Delivered by: Swayam, Taught by: Prof. Rabi N Subudhi and Prof. Sumita Mishra

Extra Readings for Unit VI:

1. The Research Insights Magazine
2. McKinsey Quarterly
3. MIT Sloan Management Review
4. Journal of Econometrics
5. Structural Equation Modeling: A Multidisciplinary Journal

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	2	3	3	1	3	3
CO2	2	3	3	2	3	2	2	2	3	2
CO3	2	3	2	3	3	2	3	3	1	3
CO4	3	2	3	3	2	3	2	3	3	3
CO5	3	2	3	2	2	2	3	2	3	1

1 – Low, 2 – Medium, 3 - Strong

FMCC10/24 - ANALYTICS FOR FINANCE

Course Aim: The main aim of the course is to provide understanding on the need and significance of Financial Analytics for various business requirements. The course also intends to enable the students to identify, formulate, and implement a Fintech project using R and Python and to enable them to explore various applications of machine learning in all analytical aspects.

Course Outcomes: After completing this course, they should be able to:

CO1	Describe, define and apply the major components of the Financial Analytics and its importance in Fintech.	L1 & L2
CO2	Apply the financial analytics process in R.	L3
CO3	Appraise the financial analytics process in Python.	L5
CO4	Integrate the applications of Financial Analytics using R.	L6
CO5	Apply python concepts and practices to advanced financial analytics.	L3
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Introduction to Financial Analytics: Meaning and Importance of Financial Analytics Uses, Features and Documents used in Financial Analytics: Balance Sheet, Income Statement, Cash flow statement - Elements of Financial Health: Liquidity, Leverage, Profitability. Analysts: Role and Responsibilities Information and Knowledge – Methodology – Data - Required Competencies for the Analyst – Hypothesis Driven Methods-Data Mining with Target Variables-Explorative Methods-Business requirements.

Unit-II: Financial Analytics with R: R and its application - Language features: functions, Assignment, Arguments and types. Financial Statistics: Concept and mathematical expectation - Probability - Mean; SD and Variance - Skewness and Kurtosis - Covariance and Correlation - Capital Asset Pricing model. Financial Securities: Bond and Stock investments - Analysis of recent financial crises: 2008 Financial Crisis, COVID-19 Impact- Securities Datasets and Visualization - Plotting multiple series. Time Series and Sharpe ratio: Examining and Stationary - Auto Regressive and integrated moving average Processes. Time periods and Annualizing - Ranking investment candidates - Sharpe Ratio for Income Statement growth.

Unit-III: Financial Analytics with Python: Python for Finance: NumPy and Pandas for Financial Data Analysis - Data Visualization with Matplotlib and Seaborn - Financial Modeling using Python - Quantitative Finance Libraries: QuantLib and PyPortfolioOpt.

Unit-IV: Financial Analytics Applications using R: Market Sentiment Analysis: Markov Regime Switching Models - Bayesian Reasoning - Beta Distribution - Stimulating Trading Strategies: Algorithmic Trading - Sentiment Analysis using Social Media Data - Bayesian Reasoning in Trading Strategies.

Unit-V: Prediction using fundamentals and binomial model for options: Predictive Analytics in Finance: Income Statement Analysis - Price Statistics - Machine Learning for Financial Predictions: Decision Trees and Random Forests - Computational Finance: Risk Neutral Pricing and No Arbitrage - High Risk-Free Rate Environment - Application of Deep Learning in Option Pricing.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Marks: CIA – 25 and ESE – 75 (Out of 75, 45 marks for written and 30 marks for practical)
(The ESE Theory Examination would be conducted for 75 marks and converted for 45 marks)

References:

Books:

1. Penman, S. H. (2012). *Financial statement analysis and security valuation*. McGraw-Hill Europe.
2. Hilpisch, Y. (2014). *Python for finance: Analyze Big Financial Data*. O'Reilly & Associates Incorporated.
3. Kaabar, S. (2024). *Deep learning for finance*. “O’Reilly Media, Inc.”.
4. Collard, J. (2022). *Hands-On data analysis in R for Finance*. CRC Press.
5. Taneja, Sanjay, Pawan Kumar, Kiran Sood, Ercan Özen, and Simon Grima. 2024. *Finance Analytics in Business: Perspectives on Enhancing Efficiency and Accuracy*. Emerald Group Publishing.
6. Maglaras, Leandros A., Sonali Das, Naliniprava Tripathy, and Srikanta Patnaik. 2024. *Machine Learning Approaches in Financial Analytics*. Springer.
7. Ang, Clifford S. 2022. *Analyzing Financial Data and Implementing Financial Models Using R*. Springer.

Online References:

1. MOOC Material: *Advanced R Programming for Data Analytics in Business*, Created by: IIT Kanpur, Delivered by Swyam, Taught by: Prof. Abhinava Tripathi.
2. MOOC Material: *Applying Data Analytics in Finance*, Created by: University of Illinois at Urbana-Champaign, Delivered by: Coursera, Taught by: Sung Won Kim
3. MOOC Material: *Finance & Quantitative Modeling for Analysts Specialization* Created by: Illinois, Delivered by: Coursera, Taught by: Michael R Roberts
4. MOOC Material: *Python and Statistics for Financial Analysis*, Created by: The Hong Kong University of Science and Technology, Delivered by: Coursera, Taught by: Xuhu Wan.

Extra Readings for Unit VI:

1. Bloomberg Markets
2. Financial Times
3. Financial Analysts Journal
4. Journal of Computational Finance
5. Journal of Financial Economics

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	1	3	3	3	3	1	3	3
CO2	2	3	2	2	2	3	2	2	3	2
CO3	2	3	3	3	2	2	3	3	1	3
CO4	3	2	3	2	3	2	2	3	3	3
CO5	3	2	2	2	3	3	2	2	3	1

1 – Low, 2 – Medium, 3 - Strong

FMCC11/24 - CORPORATE TAX MANAGEMENT

Course Aim: The course aims to help students to comprehend the basic principles and laws governing Direct taxes relating to business.

Course Outcome: At the end of the course, the students would be able to

CO1	Understand the basic concepts relating to taxation.	L1 & L2
CO2	Calculate the Residential status and Tax incidence, Incomes exempt from tax	L3
CO3	Describe how the provisions in the corporate tax laws can be used for tax planning.	L5
CO4	Identify different types of incomes and their taxability and expenses and their deductibility,	L6
CO5	Understand and apply the tax considerations relating to specified managerial decisions and special areas.	L3
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction: Concepts and History of Corporate Tax Planning - Tax Management and Tax Avoidance - Assessment year - Previous year - Person - Assessee - Income - Gross Total Income - Total Income - Capital Asset - Capital Receipts vs. Revenue Receipts - Capital Expenditure vs. Revenue Expenditure - Residential status and Tax incidence - Incomes exempt from tax - Income exempt under Section 10 - Special provision in respect of newly established undertakings in free trade zones, etc. - Income exempt under Section 13A.

Unit II: Business Income: Computation of Profits and Gains of Business or Profession - General Principles - Deductions and Allowances - Deemed Profits - Income from undisclosed sources - Valuation of stock - Specific business incomes and expenses - Depreciation.

Unit III: Taxation of Companies: Definitions of Indian Company - Domestic Company - Foreign Company - Industrial Company - Widely held company - Closely held company - Investment Company - Consultancy Service Company - Trading Company - Deductions available to Company - Minimum Alternate Tax - Carry forward and set-off of losses in case of certain companies - Tax on undistributed profits on domestic companies - Set-off and carry forward of losses - Tax incentives for exports - Deduction in respect of earnings in convertible foreign exchange.

Unit IV: Tax Considerations in Specified Managerial Decisions and Their Implications: Cash flow - Make or buy - Own or lease - Retain or replace - Export or domestic sales - Shutdown or continue - Purchase by installment or hire - Corporate tax planning in business - Essential rules governing deduction - Practical aspects of tax planning.

Unit V: Tax Considerations in Special Areas: Foreign Collaboration Agreements - Mergers - Amalgamation - Reconstructions and Acquisitions - Capital Structure and Dividend Policy - Depreciation and Other Allowances - New Industrial undertakings and tax relief - Capital gains and income from other sources - Chargeability - Settlement of cases.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage: Problems-60% and Theory – 40%

Reference:

Books:

1. Schwarz, S., & Lathrope, D. J. (2019). Fundamentals of Corporate taxation. Foundation Press
2. Agrawal, K. K. (2007). Corporate tax planning. Atlantic Publishers & Dist.
3. Singhania, Vinod K., and Monica Singhania. 2023. Taxmann’s Corporate Tax Planning & Business Tax Procedures With Case Studies [Finance Act 2023] – Lawfully Minimise the
4. Current and Future Tax Liability With This “go-to-guide.” Taxmann Publications Private Limited.
5. Essia, Uwem. 2024. Strategic Tax Planning, Ethical Excellence, and Compliance: Strategic Tax Management: Navigating Profits, Ethics, and Savings. Independently Published.
6. Sarmiento, Joaquim Miranda. 2023. Taxation in Finance and Accounting: An Introduction to Theory and Practice. Springer Nature.
7. KSinghania, Vinod, and Kapil Singhania. 2024. Taxmann’s Direct Taxes Law & Practice | AY 2024-25 –Taxmann Publications Private Limited.
8. Conrad, Robert F, and Michael Alexeev. 2024. Evolutionary Tax Reform in Emerging Economies: An Income-Based Approach. Oxford University Press.

Online References:

1. MOOC Material: *Income Tax Law and Practice*, Created by: Indira Gandhi National Open University, Delivered by: Swyam, Taught by: Madhulika P. Sarkar
2. MOOC Material: *Direct Tax Laws and Practice*, Created by: Tezpur University, Delivered by: Swayam, Taught by: Subhrangshu Sekhar Sarkar.
3. MOOC Material: *Corporate Tax Planning*, Created by: Netaji Subhas Open University, Kolkata Delivered by: Swayam, Taught by: Anirban Ghosh.
4. MOOC Material: *Taxation of Business Entities I: Corporations*, Created by: University of Illinois, Delivered by: Coursera, Taught by: Michael P Donohoe.

Extra Readings for Unit VI

1. The Tax Adviser
2. Tax Notes
3. Journal of International Accounting, Auditing and Taxation
4. International Tax Review
5. National Tax Journal

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	3	1
CO2	3	3	3	3	3	3	2	2	2	1
CO3	3	2	3	3	2	2	2	2	2	3
CO4	2	3	2	3	3	2	3	3	3	3
CO5	2	2	2	2	3	2	1	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMEC5/24 - FINANCIAL PLANNING AND WEALTH MANAGEMENT

Course Aim: The course is designed to help the students in understanding the basics of financial planning and wealth management. After the completion of course students will be able to handle investment advisory, selection and evaluation of investment products with corresponding risk and return, keeping in mind regulatory aspects of income tax etc. to maximize the return on investment for the clients. Also, learners will be capable to understand the constituents of financial planning.

Course Outcome: At the end of this course the students would be able to:

CO1	Explain the concept of the Indian Financial Market and its various segments performance and also Understand the role of financial planning and its implications	L2, L3
CO2	Evaluate the various types of mutual funds and its regulatory framework	L5
CO3	Estimate risk and return and analyze the techniques of managing risk	L4
CO4	Assess the business model for financial planning, asset allocation and rebalancing strategies Distinguish the types of Assets.	L5
CO5	Appraise the regulatory, compliance, ethical issues and operational aspects of financial transactions	L4 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyse; L5 - Evaluate;		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem-Based Learning

Unit- I Introduction to Indian Financial Market, Segments and Performance: Introduction of macro-economic parameters of Indian Economy - Nature, Functions and Types of issues in Primary Markets - role and function of Secondary Markets - types of various Corporate Actions. Working of equity markets - Interpret key equity market indicators.

Unit- II Selection and Analysis of Mutual Funds & other Investment Products: Meaning and features of a mutual fund, key terms and concepts associated with mutual funds - regulatory framework for mutual funds - Types of mutual fund products - taxation of Mutual Fund Products - investment options - macroeconomic policies and asset allocation - Behavioural biases in decision making and portfolio management.

Unit- III Managing Investment Risks and Measuring Returns: Definition of Risk - Types of Risk - Risk Measurement - Concepts of Return - Compounding in Return - Real rate of return vs. nominal return - Computation of Tax adjusted return - Computation of Risk-adjusted Returns.

Unit-IV Personal Financial, Insurance Planning, Retirement, Tax and Estate Planning: Financial planning - need for financial advisory services - scope of financial advisory services - business model for financial planning – assets - liabilities and net worth - preparation of budget - financial planning delivery process - asset classes - Portfolio construction - Practical asset allocation and Rebalancing Strategies - need for portfolio monitoring and re-balancing.

Unit- V Regulatory, Compliance, Ethical Issues and Operational Aspects of financial transactions: Provisions of the SEBI (Investment Advisers) Regulations 2013 - overall framework of the regulatory system - roles of regulators in detail: MoF – MCA – SEBI – RBI – IRDA – PFRDA - Role of Self-regulatory organizations - provisions of PMLA 2002 – SEBI - AMFI, etc. Ethical issues in providing financial advice - investor complaint redressal mechanism, PAN – KYC - Demat and Remat processes - NRI to RI and RI to NRI.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Raymond Enos, *Wealth Management Book for Beginners 2024: Key Principles To Manage Wealth*, Kindle Edition, (2024), Independently published.
2. Joydeep Sen, *Financial Planning & Wealth Management: Concepts and Practice*, (1st Edition, October 2020), Shroff Publishers, India.
3. NISM (2019), *NISM-Series-X-A Investment Advisor (Level 1)*, Delhi: Taxmann
4. NISM (2019), *NISM-Series-X-B Investment Advisor (Level 2)*, Delhi: Taxmann
5. Sundar Sankaran, *“Wealth Engine: Indian Financial Planning & Wealth Management Handbook”*, (2012), Vision Books.
6. David L Scott, *How to Manage Your Investment Risks & Returns Paperback*, (Oct. 2011), Vision Books, New Delhi.

Online References:

1. MOOC Material: *Certification in Financial Planning & Wealth Management (NSEINDIA)* Created and Delivered by: NSE India.
2. MOOC Material; *Behavioural Finance (Coursera)* Created by: Duke University, Delivered by: Emma Rasiel.
3. <https://www.scribd.com/document/435507018/Wealth-management-notes>
4. Introduction to Financial Planning and Wealth Management: Industry and Careers, Led by Meeyeon Park and Mark R, CFI Education Inc.

Extra References for Unit VI:

1. <https://www.barrons.com/magazine>
2. Bloomberg Businessweek
3. Financial Times
4. The AAI Journal

Mapping with Programme Outcomes										
Cos	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	2	3	3	3	3	2
CO2	3	3	2	2	2	3	3	3	2	2
CO3	2	2	3	2	3	2	3	2	3	3
CO4	3	3	2	3	3	2	2	3	2	3
CO5	3	2	3	3	3	3	2	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMEC6/24 - FINANCIAL MODELLING

Course Aim: The major aim of the course is to familiarize the students with the concepts, principles and the role of modelling in Finance. The course would also make students skilled enough to analyze and interpret the financial health of an organization and use the same for fact-based decision making. Thus, the course would prepare students for an exciting challenging and rewarding managerial career that requires forecasting finance.

Course Outcome: After completing this course, the student should be able to:

CO1	Judge the basic concepts of modeling and its perspective in analysis and auditing.	L1 & L2
CO2	Develop insights on Financial Statement and forecasting various finance parameters.	L3
CO3	Construct a financial model suitable that aids management and documentation.	L6
CO4	Integrate potential applications of Finance Models and their implementation.	L6
CO5	Practice and implement financial modeling in the field of operations research	L3 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem-Based Learning

Unit-I: Principles of Modelling: A Good Model- Model Design- Selection of Model Variables and their Dependencies- Level of Detail or Aggregation-Model Structure and Planning- Model Building- Results Presentation and Other Uses of Sensitivity Analysis- Model Auditing.
Financial Modelling in Excel for Intermediate level: Formatting of Excel sheets - Use of Excel Formula Function - Advanced Modeling Techniques – Extrapolation - Histogram.

Unit-II: Financial Statement, Cash Flow and Valuation Modelling: Financial Statement Modelling: Core Points and Example - Income Statement Forecasting - Sales Forecasts- Cost Forecasts - Operating Profit - Taxable Profit - Tax and Net Income - Dividends and Retained Earnings Balance Sheet Forecasting- Error Checks and Feasibility Checks-Cash Flow Statement Forecasting- Cash Flow Valuation. **Equity Research Modelling:** Prepare an Income statement - Balance sheet - Cash Flow Statement - Geographic Revenue Sheet - Segment Revenue Sheet - Cost Statement - Debt Sheet and Analyze Revenue drivers.

Unit-III: Developing Financial Models: Basics of Design- Design process and method- Menu structure- Management reports and summaries- Development- Testing and auditing- Protection as an application- Documentation- Features and techniques - Data validation- Controls- Graphics- Sample model planning- Example model.

Unit-IV: Applications of Financial Modelling: Analyzing performance- Forecasting models- Portfolio analysis- Cost of capital-Bonds- Investment analysis- Risk- Depreciation- Leasing- Company valuation- Optimization- Risk management- Modelling checklist.

Unit-V: Financial Modelling for Operations Research: Linear Regression – Forecasting Models: Historic Forecasts - Trend lines - Data smoothing - Cyclicity and Seasonality – Linear Programming – Profit Maximization – Probability concepts – Decision Tree Model.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Marks: CIA – 25 and ESE – 75 (Out of 75, 45 marks for written and 30 marks for practical)
(The ESE Theory Examination would be conducted for 75 marks and converted for 45 marks)

References:

Books:

1. Simon Benninga and Tal Mofkadi (February 2022), *Financial Modeling*, Fifth Edition, The MIT Press, Cambridge.
2. *Financial Modelling Handbook - The Step-by-Step Guide to Building your First Financial Model & Value Companies from Scratch*, (January 2023), First Edition, Zebra learn Pvt Ltd, India.
3. *Financial Statement Analysis Handbook - How to Read & Analyse Financial Statements in Detail*, by Zebra learn, (January 2023), First Edition, Zebra Learn Pvt Ltd, India.
4. Day, A. (2015). *Mastering Financial Modelling in Microsoft Excel: A Practitioner's Guide to Applied Corporate Finance*. 3rd Edn, United Kingdom: Pearson Education Limited.
5. Lewinson, E. (2020). *Python for Finance Cookbook: Over 50 Recipes for Applying Modern Python Libraries to Financial Data Analysis*. United Kingdom: Packt Publishing.
6. Oluwa, S. (2019). *Hands-On Financial Modeling with Microsoft Excel 2019: Build Practical Models for Forecasting, Valuation, Trading, and Growth Analysis Using Excel 2019*. United Kingdom: Packt Publishing.
7. Rees, M. (2015). *Financial Modelling in Practice: A Concise Guide for Intermediate and Advanced Level*. United Kingdom: Wiley.

Online References:

1. <https://corporatefinanceinstitute.com/resources/knowledge/modeling/types-of-financial-models>
2. <https://www.wallstreetprep.com/knowledge/financial-modeling-best-practices-and-conventions/>
3. https://www.ey.com/en_nl/finance-navigator/the-ultimate-guide-to-financial-modeling-for-startups
4. MOOC Material: *Mastering Data Analysis in Excel*, Created by: Duke University, Delivered by: Coursera, Taught by: Daniel Egger and Jana Schaich Borg
5. MOOC Material: *Fundamentals of Quantitative Modelling*, Created by: University of Pennsylvania, Delivered by: Coursera, Taught by: Richard Waterman.
6. MOOC Material: *Introduction to Spreadsheets and Models*, Created by: University of Pennsylvania, Delivered by: Coursera, Taught by: Don Huesman.
7. MOOC Material: *Data, Models and Decisions in Business Analytics* (edX), Created by: Columbia University ColumbiaX, Delivered by: EdX Taught by: Costis Maglaras and Vineet Goyal.

Extra References for Unit VI:

1. NYU Libraries
2. UNT Dallas
3. American Banker

4. Finance and Commerce
5. Forbes
6. The Economist

Mapping with Programme Outcomes										
Cos	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	2	3	3	3	2
CO2	3	3	2	2	2	3	3	2	2	2
CO3	3	2	3	2	2	3	2	3	3	3
CO4	2	2	3	2	3	2	2	3	2	3
CO5	3	3	2	2	3	2	3	2	2	2

1 – Low, 2 – Medium, 3 - Strong

FMSC3/24 - WORKING CAPITAL MANAGEMENT

Course Aim: The course helps to appraise students with the importance of working capital and the techniques used for effective working capital management and to manage the components of working capital like cash, receivables, inventory and payables.

Course Outcomes: At the end of the Course the student would be able to

CO1	Understand the importance, components and factors influencing working capital management.	L1 & L2
CO2	To Know and understand how to Evaluate working capital finance.	L3
CO3	Formulate appropriate working capital management policies to achieve corporate objectives.	L6
CO4	Apply corporate cash management, accounts receivable management, bank relations, and inventory management techniques to maximize the share holders' value	L3 & L6
CO5	Write a plan for a balanced integration of cash, credit and other short-term topics and policies.	L3
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Self Learning and Peer Learning.

Unit I: Working Capital Policy: Concept and Importance of Working Capital Management - Components of Working Capital - Factors Influencing the Requirements of Working Capital. Estimating Working Capital Requirements: Operating Cycle Method - Percent of Sales Method - Role of finance managers in working capital management.

Unit II: Working Capital Financing: Sources of working capital finance - determining the working capital Financing Mix - New Trends in Financing of Working Capital by Banks.

Unit III: Cash Management: Management of Cash-Motives of holding cash - Managing Cash Flows - Investment of Surplus Funds - Calculating operating cycle. Importance - the right proportion - Factors influencing cash balance - Determining optimum cash balance - Cash Budgeting - Controlling and monitoring collections and disbursements and Cash management models.

Unit IV: Receivables and Payables Management: Credit Policy variables - Credit Standards - Credit period - Cash discount and collection efforts. Credit Evaluation - Credit Granting Decision - Control of Receivables - Management of Trade Credit in India - Payables Management.

Unit V: Inventory Management: Meaning and Nature of Inventory - Need for inventories and the importance of its management - Techniques for managing inventory - Order Quantity - E.O.Q. Model - Order Point - Safety Stock - Analysis of Investment in inventory - Selective Inventory Control - A.B.C Analysis. Just In Time Inventory. Classification & codification and valuation of Inventories.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Reference:**Books:**

1. R.K. Gupta and Himanshu Gupta, *Working Capital Management & Finance: A Handbook for Bankers and Finance Managers Paperback*, December 2021, Notion Press; 1st edition Chennai – 600095.
2. Dr. R.P. Rustagi, *Taxmann's Working Capital Management* , (April 2021), Reprint Edition Taxmann Publications Private Limited, India.
3. John Tennent, 2018, *The Economist Guide to Financial Management 3rd Edition*, Profile Books Limited, London.
4. R.K. Gupta and Himanshu Gupta, , 2015, *Working Capital Management & Finance*, (1st Edition), Notion Press, Chennai.
5. Prasanna Chandra, 2004, *Financial Management - Theory and practice*, 5th Ed. Tata McGraw Hill, New York.
6. Hrishikes Battacharya, 2001, *Working Capital Management: Strategies and Techniques*, Prentice Hall of India, New Delhi.
7. Pandey I.M, 2005, *Financial Management*, Vikas Publishing House, New Delhi.
8. Joshi, R.N., 1999, *Cash Management*, New Age International Publishers.
9. Ramamurthy V.E.,1976, *Working Capital Management*, IFMR Publication, Chennai.

Online References:

1. Swayam Course Material: **Working Capital Management** Created by Prof.Anil K. Sharma, Indian Institute of Technology (IIT), Roorkee.
2. <https://www.scribd.com/document/571762554/bu-mba-syllabus-full-time-3-sem-fsf-2-working-capital-management-1> Barkatullah University Bhopal.
3. MOOC Material: *Accounting and Finance (edX)*, Created by: Indian, Delivered by: EdX, Taught by: MS Narasimhan.
4. Swayam Course Material: *Financial Management*, Created by Vanitha Tripathi, Delhi University.
5. Study.com Study Material: *Principles of Finance*.
6. NPTEL Course Material: Course Name: Construction Economics & Finance, Module: *Financial Management*, Course Co-ordination: IIT Guwahati.

Extra References for Unit VI:

1. The Economic Times
2. Scribd
3. Business Standard
4. Euro Finance
5. Money Control

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	2	2
CO2	3	2	2	2	2	3	2	2	3	2
CO3	3	2	3	2	2	3	3	3	3	3
CO4	2	2	2	2	3	2	2	3	2	3
CO5	2	3	3	2	3	2	2	2	2	2

1 – Low, 2 – Medium, 3 - Strong

CCPCF3/24 – MUTUAL FUNDS

The detailed syllabus for this course is given in the Regulation and Syllabus for Certification Course on Professional Competency in Finance

FMFC4/24 - PROJECT APPRAISAL AND EVALUATION

Course Aim: The course aims at imparting to the students' knowledge on the principles of processes commonly used in project management. It will cover the tools and techniques for identification, analysis, design, implementation, monitoring and evaluation of programmes and projects from the point of view of all stakeholders.

Course Outcomes: On completion of the course, the students will be able to

CO1	Understand the fundamental concepts and phases of capital budgeting and the criteria for resource allocation.	L2 & L4
CO2	Apply techniques of market, technical, and financial analysis to evaluate project feasibility and financial viability.	L3 & L5
CO3	Analyze various risk estimation techniques and evaluate their impact on project decisions under uncertainty.	L4 & L5
CO4	Evaluate the rationale and methodologies for social cost-benefit analysis, including the UNIDO and Little-Mirrlees approaches.	L5
CO5	Create and manage project networks using PERT and CPM techniques, and assess project performance through audits and reviews.	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Project Planning and Analysis: Capital Budgeting Concepts, Objectives, and Phases – Levels of Decision-Making – Resource Allocation Framework, Key Criteria for Allocation of Resources – Generation and Screening of Project Ideas – Regulatory Framework for Projects – Corporate Appraisal – Preliminary Screening – Project Rating Index.

Unit II: Market, Technical, and Financial Analysis: Market and Demand Analysis – Technical Analysis: Material Inputs, Manufacturing Processes, Plant Capacity, and Machinery – Financial Analysis: Cost Estimation, Working Capital Requirement, Cash Flow Statements, and Breakeven Analysis.

Unit III: Project Evaluation Under Uncertainty: Types and Measures of Risk – Risk Estimation Techniques: Sensitivity Analysis, Scenario Analysis, Monte Carlo Simulation, and Decision Tree Analysis. **Special Decision Situations:** Choice Between Mutually Exclusive Projects of Unequal Life, Optimal Timing, Determination of Economic Life – Inflation Effects on Capital Budgeting.

Unit IV: Social Cost-Benefit Analysis and Constraints: Rationale and Methods for Social Cost-Benefit Analysis (SCBA) – UNIDO and Little-Mirrlees Approaches – Constraints in Project Appraisal, Ranking Methods, and Linear Programming Models – Qualitative Factors in Capital Budgeting – Strategic Planning – Environmental Impact Assessment.

Unit V: Project Network Techniques and Review: Development of Project Network – Time Estimation, Scheduling, PERT, CPM, and Network Cost System – Project Review Process, Performance Evaluation, and Project Audits – Methods of Project Control, Control Issues, and Project Closure – Team Evaluations and Administrative Aspects of Capital Budgeting.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

**Weightage in Question Paper: Problems-50% and Theory – 50%.
Project Report at business firms should be given as Assignment for evaluation of
CIA Marks.**

References:

Books:

1. Kerzner, H. (2022). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* (13th ed.). Wiley.
2. Uwe Götze, Deryl Northcott, & Schuster, P. (2015). *Investment Appraisal: Methods and Models*. Springer.
3. Erickson, K. H. (2013). *Investment Appraisal: A Simple Introduction*. K.H. Erickson.
4. Boardman, A. E. (2018). *Cost-Benefit Analysis: Concepts and Practice* (4th ed.). Cambridge University Press.
5. Prasanna Chandra, 2019, *Projects: Planning, Analysis, Selection, Implementation & Review, 9th Edition*, Tata McGraw Hill, New Delhi.
6. Pearce, D. W., Atkinson, G., & Mourato, S. (2006). *Cost-Benefit Analysis and the Environment: Recent Developments*. OECD Publishing.
7. Ambrish Gupta, 2017, *Project Appraisal and Financing*, Eastern Economy Edition, PHI Learning Pvt. Ltd, New Delhi.
8. Gatti, S. (2023). *Project Finance in Theory and Practice: Designing, Structuring, and Financing Private and Public Projects* (4th ed.). Academic Press.
9. Layton, M. C., Ostermiller, S. J., Kynaston, D. J. (2020). *Agile Project Management For Dummies*. United Kingdom: Wiley.
10. Dixit, A. K., & Pindyck, R. S. (1994). *Investment Under Uncertainty*. Princeton University Press.
11. Highsmith, J. (2009). *Agile Project Management: Creating Innovative Products* (2nd ed.). Addison-Wesley Professional.

Online References:

1. MOOC Material: *Initiating and Planning Projects*, Created by: University of California, Irvine, Delivered by: Coursera, Taught by: Margaret Meloni.
2. MOOC Material: *Fundamentals of Project Planning and Management*, Created by: Darden School of Business, University of Virginia, Delivered by: Future Learn, Taught by: Yael Grushka-Cockayne.
3. MOOC Material: *Project Management for Managers*, Created by: IIT Roorkee, Delivered by: Swayam, Taught by: Mukesh Kuma Barua.
4. MOOC Material: *Project Planning and Control*, Created by: IIT Madras, Delivered by: Swayam, Taught by: Koshy Varghese.
5. MOOC Material: *Project Management: Planning, Execution, Evaluation And Control*, Created by: IIT Kharagpur, Delivered by: Swayam, Taught by: Sanjib Chowdhury

Extra Readings for Unit VI:

1. International Journal of Project Management
2. Harvard Business Review
3. The Economist
4. Project Management Institute (PMI) Publications
5. World Bank Project Appraisal Reports

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	3	3	3	3	3	3	2	2
CO2	3	3	3	3	3	2	2	3	3	2
CO3	2	2	3	3	2	2	3	2	2	3
CO4	3	3	3	3	2	3	3	3	3	3
CO5	3	3	3	2	3	3	2	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMCC12/24 - FINANCIAL DERIVATIVES

Course Aim: The aim of this course is to blend theory, problems and cases to introduce the basic concepts in a lucid, engaging manner. The comprehensive coverage of fundamentals along with the liberal use of examples to explain concepts makes it perfect.

Course Outcome: On completing the course, the student would be able to

CO1	Explains the history and evolution of derivatives market	L1 & L2
CO2	Understand the functioning of forwards and futures and its strategies	L2
CO3	Assess the basics of futures and its strategies	L4 & L5
CO4	Describe the trading, clearing, settlement and risk management in derivatives market	L2
CO5	Evaluate Legal and Regulatory Environment, Sales Practices, Code of Conduct and Investor Protection Measures	L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Basics of Derivatives and Underlying Market: Introduction to derivatives - History and evolution of derivatives market - Factors influencing the growth of derivatives market - History of Indian derivatives Market and available derivative products in India - Market participants and their roles in the derivatives markets - OTC and Exchange Traded Market - Significance and economic purpose of derivatives - Risks associated with financial derivatives - Introduction to Blockchain and Smart Contracts in Derivatives.

Unit II: Introduction to Forwards and Futures: Introduction to Forwards and Futures contracts - Forwards and Futures on Equities - Payoff Charts for Futures contract - Futures pricing - Basic differences in Commodity, Equity and Index Futures - Exchange Traded Currency Futures - Concept of Interest rate parity and pricing of currency futures - Interest Rate Futures - Delivery aspects of IRD contracts including conversion factor, invoice amount, cheapest-to-deliver bond - Impact of Regulatory Changes on Futures Markets.

Unit III: Strategies Using Futures: Strategies using Equity Futures - Strategies for hedging, speculation and arbitrage in futures market - Strategies Using Currency Futures - Strategies Using Interest Rate Futures - Algorithmic Trading Strategies in Futures Markets.

Unit IV: Introduction to Options on Equities and Currencies: Basics of options - Concept of option premium - Call and Put option - Buying and selling (writing) options - European vs. American option - Moneyness of an option - Binomial and Black-Scholes option pricing models, option Greeks, and the application of machine learning in option pricing models - Payoff charts for options - Uses of Options – Exchange Traded Currency Options - Introduction to Exotic Options and their Pricing.

Unit V: Option Trading Strategies: Strategies using Equity Options and Currency Options- Option spreads and their payoff charts - Straddle: market view and payoff charts - Strangle: market view and payoff charts - Covered Call: market view and payoff charts - Protective Put: market view and payoff charts - Collar: market view and payoff charts - Butterfly spread: market view and payoff charts - Risk Management using Delta Hedging.

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 20% and Problems – 80%

References:

Books:

1. Hull, J. C. (2018). *Options, Futures, and Other Derivatives* (10th ed.). Pearson.
2. Hull J. C. (2018). *Fundamentals of Futures and Options Markets*. Pearson
3. McDonald, R. L. (2013). *Derivatives Markets* (3rd ed.). Pearson.
4. Chance, D. M., & Brooks, R. (2021). *An Introduction to Derivatives and Risk Management*. South-Western, Cengage Learning.
5. Bacha, O. I. (2022). *Financial Derivatives: Markets and Applications*. Fifth ed. World Scientific.
6. Das, S. (2006). *The Swaps & Financial Derivatives Library: Products, Pricing, Applications and Risk Management*. John Wiley & Sons.
7. Gupta S.L (2017). *Financial Derivatives: Theory, Concepts And Problems*. PHI Learning Pvt Ltd
8. Hudson, A. (2017). *The law on financial derivatives*. Sweet and Maxwell Ltd.
9. Kwok, Y. K. (2008). *Mathematical models of financial derivatives*. Springer.
10. Prakash Yaragol (2018). *Financial Derivatives: Text and Cases*. Vikas Publishing House
11. Quail, R., & Overdahl, J. A. (Eds.). (2009). *Financial derivatives: Pricing and risk management (Vol. 5)*. John Wiley & Sons.

Online References:

1. MOOC Material: Derivatives - Options & Futures, Created by: Interactive Brokers, Delivered by:Lagunita Stanford Online, Taught by: Jeff Praissman, Andrew Wilkinson, Lucas Deaver and Steven Levine.
2. MOOC Material: Derivatives, futures and swaps, Created by: Neyork Institute of Finance, Delivered by:Lagunita Stanford Online, Taught by: Jack Farmer, Chris Thomas
3. MOOC Material: Financial Derivatives & Risk Management, Created by: IIT Roorkee, Delivered by: Swayam, Taught by: Jatinder Pal Singh
4. MOOC Material: Commodity Derivatives & Risk Management, Created by: IIT Kharagpur, Delivered by: Swayam, Taught by: Prabina Rajib

Extra Readings for Unit VI:

1. Journal of Financial and Quantitative Analysis
2. Risk Magazine: <https://www.risk.net/>
3. Harvard Business Review
4. The Economist
5. International Swaps and Derivatives Association (ISDA) Reports

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	2	3	2	2	3	3	3
CO2	3	3	3	2	3	3	3	2	3	2
CO3	2	2	2	2	2	2	2	3	3	2
CO4	3	3	3	3	3	3	3	2	2	2
CO5	3	2	3	2	2	2	2	3	2	3

1 – Low, 2 – Medium, 3 - Strong

FMCC13/24 – BEHAVIORAL FINANCE

Course Aim: This course aims to investigate psychology's contribution to finance and economics and discuss the theories to enable the students to understand the decision behavior of an individual investor within a market context, which would help them have a better understanding of financial market dynamics.

Course Outcome: At the end of this course the students would be able to:

CO1	Understand the theories of Behavioral Finance	L2
CO2	Articulate the evolution of Behavioral Finance	L2 & L3
CO3	Correlate the theories and behavioral factors in investment decision making	L4 & L5
CO4	Evaluate anomalies and market bubbles in financial markets	L5
CO5	Understand the relevance of forensic accounting	L2
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Theories of Behavioral Finance: Introduction - Asymmetric Information - Egocentricity - Human Behavioral Theories - Heuristics - Biases - Emotional Bias, Statistical Bias, Cognitive Bias, Other Irrational Investment Behavior Bias, Group Think Bias - Interaction between Biases - Outcomes of Biases - Dealing with Biases - Overcoming the Biases - Debiasing - Prospect Theory - Uses of Behavioral Finance - Behavioral Economics and its Applications in Finance.

Unit-II: Evolution of Behavioral Finance: Introduction - Assumptions of Behavioral Finance - Building Blocks of Behavioral Finance - Elimination of Uncertainty - Important Contributors - History of Behavioral Finance. **Neuro finance:** The Brain-Neural Process during Financial Decision Making - Experiments in Neuro finance - The Future of Neurofinance - Impact of Technology and Big Data on Behavioral Finance.

Unit-III: Behavior and Decision Making: Foundations of Behavior - Behavioral Models - Perception - Causes of Behavior Difference - Motive - Behavioral Decision Making - Biases in Decision Making - Neuroeconomic Perspectives on Decision Making.

Unit-IV: Financial Market Anomalies: Introduction - Fundamental Anomalies - Technical Anomalies, Calendar Anomalies - Accounting Anomalies. **Market Bubbles:** The First Known Stock Market Bubbles - Stock Market Bubbles in Recent History - Identification of Stock Market Bubbles - Classification of Bubbles - Behavioral Finance Explanation of Bubbles - Investor Behavior During Bubbles - Causes of Bubbles. Behavioral Patterns in Digital Assets.

Unit-V: Forensic Accounting: Introduction - Classification of Fraud - Behavioral Aspects of Fraud - Types of Fraud Perpetrators - Origin and Growth of Forensic Accounting - Forensic Auditing - Fraud Theories - Studies on Fraud Behavior - Tools in Forensic Accounting - Anti-Fraud Measures - E-Fraud - Forensic Accounting in India - Government Agencies that Combat Frauds.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Ackert, L. F., & Deaves, R. (2010). *Behavioral Finance: Psychology, Decision-Making, and Markets*. South-Western Cengage Learning.
2. Kahneman, D. (2011). *Thinking, fast and slow*. Macmillan.
3. Thaler, R. H. (2015). *Misbehaving: The Making of Behavioral Economics*. W.W. Norton & Company.
4. Andrei Shleifer. (2000). *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford University Press.
5. Baker, H. K., Nofsinger, J. R., & Ricciardi, V. (2023). *Advanced introduction to behavioral finance*. Edward Elgar Publishing Limited.
6. Hopwood, W. S., Leiner, J. J., & Young, G. R. (2011). *Forensic accounting and fraud examination*. McGraw-Hill.
7. Shiller, R. J. (2015). *Irrational Exuberance* (3rd ed.). Princeton University Press.
8. Barberis, N., & Thaler, R. (2003). *A survey of behavioral finance*. Handbook of the Economics of Finance, 1, 1053-1128.
9. Constant D. Beugre, 2018, *The Neuro Science of Organisational Behavior*, Edward Elgar Publishing Limited, UK.
10. Kent Baker H, Greg Filbeck, Victor Ricciardi, 2017, *Financial Behavior: Players, Services, Products, and Markets*, Oxford University Press.
11. Prasanna Chandra, 2020, *Behavioral Finance*, 3rd Edition, TataMc Graw Hill Education Pvt Ltd, New Delhi.
12. Ranjit Singh, 2019, *Behavioral Finance*, PHI Learning Private Limited. Delhi.
13. Statman, M. (2019). *Behavioral Finance: The Second Generation*. (n.p.): CFA Institute Research Foundation.
14. Kapoor, S., Prosad, J. M. (2019). *Behavioural Finance*. India: SAGE Publications.

Online References:

1. MOOC Material: *Behaviroal Finance*, created by: Duke University, delivered by: Coursera, Taught by: Emma Rasiel.
2. MOOC Material: *Behavioral Finance* (Coursera), Created by: Duke University, delivered by: Coursera, Taught by: Emma Rasiel.
3. MOOC Material: *Portfolio and Risk Management* (Coursera), Created by: Indian School of Business (ISB), Delivered by: Coursera, Taught by: Ramabhadran Thirumalai.
4. MOOC Material: *Applying Investment Decision Rules for Startups* (Coursera), Created by: Yonsei University, delivered by: Coursera, Taught by: Saeyeol Park
5. MOOC Material: *Behavioural Finance*, Created by: KIIT (Deemed to be) University, Delivered by: Swayam, Taught by: Shikta Singh

Extra Readings for Unit VI:

1. Journal of Behavioral and Experimental Finance
2. Journal of Economic Psychology
3. Harvard Business Review
4. The Economist
5. Behavioral Insights Team Publications

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	3	2
CO2	3	3	3	3	3	3	3	2	3	2
CO3	2	2	2	3	2	2	2	2	2	3
CO4	2	3	2	3	3	3	3	3	2	3
CO5	3	3	3	2	3	2	3	2	3	2

1 – Low, 2 – Medium, 3 - Strong

FMCC14/24 - BLOCKCHAIN FOR MANAGERS

Course Aim: This course aims to provide managers with a comprehensive understanding of blockchain technology, platforms, applications, regulatory considerations, and strategic management implications, enabling them to effectively evaluate, implement, and manage blockchain initiatives in diverse business environments.

Course Outcome: At the end of this course the students would be able to:

CO1	Understand the fundamental concepts and components of blockchain technology	L2
CO2	Analyse different blockchain platforms and their applications	L3 & L4
CO3	Evaluate the impact of blockchain on business processes and industries	L5
CO4	Assess regulatory, legal, and ethical considerations in blockchain adoption	L4 & L5
CO5	Develop strategies for successful implementation and management of blockchain projects	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit-I: Introduction to Blockchain Technology: Fundamentals of Blockchain: Definition and Key Concepts - History and Evolution of Blockchain - Blockchain vs. Traditional Databases - Components of Blockchain: Blocks, Chains, Nodes, and Networks - Types of Blockchains: Public, Private, Consortium, Hybrid. Cryptography and Security: Basics of Cryptography - Hash Functions - Public and Private Keys - Digital Signatures - Consensus Mechanisms: Proof of Work, Proof of Stake, and Others.

Unit-II: Blockchain Platforms and Technologies: Major Blockchain Platforms - Bitcoin and its Blockchain - Ethereum and Smart Contracts - Hyperledger Fabric - Ripple and Payment Protocols - Other Emerging Platforms. Smart Contracts: Definition and Use Cases - How Smart Contracts Work - Benefits and Challenges - Real-world Examples and Applications. Future Trends and Innovations: Next-Generation Blockchain Technologies - Integration with Other Emerging Technologies (AI, IoT, Big Data) - Predictions for the Future of Blockchain. Case Study: Innovative Blockchain Startups in India.

Unit-III: Blockchain Applications in Business: Financial Services and Banking: Cryptocurrencies and Digital Assets - Cross-border Payments and Remittances - Trade Finance and Supply Chain - Case Study: ICICI Bank's Blockchain Implementation for Trade Finance. Non-Financial Applications: Supply Chain Management (e.g., IBM Food Trust) - Healthcare and Pharmaceuticals (e.g., MedRec) - Real Estate and Land Registries (e.g., Propy) - Government and Public Services (e.g., Estonia's Digital Identity).

Unit-IV: Regulatory, Legal, and Ethical Considerations: Regulatory Landscape: Global and Indian Regulatory Environment - Key Regulatory Bodies (e.g., RBI, SEBI, MEITY) - Legal Issues and Compliance - Case Study: RBI's Regulatory Sandbox for Blockchain. Ethical Considerations: Privacy and Data Protection - Ethical Use of Blockchain - Impact on Jobs and Society- Case Study: Data Privacy in Blockchain-Based Applications.

Unit-V: Implementation and Management of Blockchain Projects: Developing and Managing Blockchain Projects - Steps to Implement a Blockchain Project - Blockchain Development Tools and Frameworks - Challenges and Best Practices - Case Study: Successful Blockchain Projects in India. Strategic Implications for Managers - Evaluating Blockchain Use Cases - Cost-Benefit Analysis - Change Management and Adoption Strategies. Blockchain in Emerging Markets: Blockchain for Financial Inclusion - Use Cases in Agriculture and Rural Development - Opportunities and Challenges in Emerging Markets. Case Study: Blockchain for Land Registration.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Drescher, D. (2017). *Blockchain Basics: A Non-Technical Introduction In 25 Steps*. Apress.
2. Antonopoulos, A. M. (2017). *Mastering Bitcoin: Unlocking Digital Cryptocurrencies*. O'Reilly Media.
3. Tapscott, D., & Tapscott, A. (2016). *Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World*. Portfolio.
4. Swan, M. (2015). *Blockchain: Blueprint for a New Economy*. O'Reilly Media.
5. Laurence, T. (2023). *Blockchain for dummies*. John Wiley & Sons.
6. Narayanan, A., Bonneau, J., Felten, E., Miller, A., & Goldfeder, S. (2016). *Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction*. Princeton University Press.

Online References:

1. MOOC Material: Blockchain Basics, Created by: University at Buffalo & The State University of New York, Delivered by: Coursera, Taught by: Bina Ramamurthy
2. MOOC Material: Blockchain and its Applications, Created by: IIT Kharagpur, Delivered by: Swayam, Taught by: Sandip Chakraborty
3. Nakamoto Institute. (n.d.). Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from <https://nakamotoinstitute.org/bitcoin/>
4. Ethereum Foundation. (n.d.). Ethereum: A Next-Generation Smart Contract and Decentralized Application Platform. Retrieved from <https://ethereum.org/en/>
5. Hyperledger. (n.d.). Hyperledger Fabric Documentation. Retrieved from <https://hyperledger-fabric.readthedocs.io/en/latest/>

Extra Readings for Unit VI:

1. MIT Technology Review
2. Harvard Business Review
3. The Economist
4. CoinDesk Reports
5. World Economic Forum Blockchain Reports

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	3	3	2	3	2	3	3	3	3
CO2	3	3	3	3	3	2	3	2	2	2
CO3	3	2	2	3	2	3	2	2	2	3
CO4	2	3	2	2	3	3	3	3	3	3
CO5	3	3	3	2	3	2	2	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMEC7/24 - INTERNATIONAL FINANCIAL MANAGEMENT

Course Aim: The aim of the course is to study the role of international trade and investment, currency movements, international financial markets, and international agreements and institutions play in the management of multinational corporations.

Course Outcome: At the end of this course the students would be able to:

CO1	Understand the nature and scope of International financial management.	L1 & L2
CO2	Discover the functionalities in foreign exchange market	L1 & L2
CO3	Estimate the foreign exchange exposure.	L3
CO4	Evaluate the various sources of international finance.	L4 & L5
CO5	Formulate international investment decision by incorporating financial and non-financial factors	L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Foundations of International Financial Management: International Business and its Mode – Nature and Scope of International Financial Management – Multi National Corporations – International Financial Management Vs Domestic Financial Management – **Developments in International Monetary System:** Specie Commodity Standard – Gold Standard – Bretton Woods System of Exchange Rate – Exchange Rate Regime Since 1973 – International Liquidity – IMF and its role in International Monetary System – Solution for Financial Crisis.

Unit II: Foreign Exchange Market: Features – Major Participants – Spot Market – Forward Market: **Exchange Rate Mechanism:** Exchange Rate Quotations – Nominal, Real and Effective Exchange Rate – Determination of Exchange Rate in Spot Market and Forward Market – Factors Influencing Exchange Rate – Theories of Exchange Rate Behaviour – Need for Forecasting Exchange Rates – Forecasting Techniques – Forecasting in a Controlled Regime.

Unit III: Foreign Exchange Exposure Management: Translation Exposure – Meaning and Measurements – Methods of Translation Exposure – Functional Vs Reporting Currency – Translation Methods – Measurement of Transaction Exposure – Transaction Exposure – Meaning and Measurements – Based on Currency Variability – Managing Transaction Exposure – Currency Forwards – Futures – Options and Swaps – Measurement of Currency Variability – Economic Exposure – Measuring Economic Exposure – Transaction Exposure Vs Economic Exposure – Managing Economic Exposure – Corporate Philosophy for Exposure.

Unit IV: International Financing Decisions: Global Capital Flow Trends – Channels for Flow of Funds – Changing Structure of International Financial Market – Sources and Forms of Funds – Process of Internationalization of Banks – Financial Intermediation Function – Direction and Purpose of Lending – The Credit Creation Function – International Equities – International Bonds – Secondary Market Operations – Short Term and Medium Term Instruments – International Working Capital Policy – International Cash management – Receivables and Inventory Management – Financing of Current Assets – Interest Rate Swap, Currency Swap, Equity Swap.

Unit V: International Investment Decisions: Theories of Foreign Direct Investment – Cost and Benefits of FDI – Strategy for FDI – Control of MNCs – Evaluation Criteria in International Capital Budgeting – Computation of Cash Flow – Cost of Capital – Adjusted Present Value Approach – Sensitivity Analysis – Real Options and Project Appraisal. Evaluating M & A – Non financial factors in Capital Budgeting – Meaning and Forms of Political Risk – Evaluation of Political Risk –Management of Political Risk. Introduction to International Portfolio Investment – Benefits, Problems and Modes of International Portfolio Investment– Concept and Identification of Optimal International Investment Portfolio.

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

Weightage in the Question Paper: Theory – 70% and Problems - 30%

References:

Books:

- 1) Eun, C. S., Resnick, B. G., & Chuluun, T. (2024). *International Financial Management*. 10th Edition
- 2) Madura, J., Hoque, A., & Krishnamurti, C. (2022). *International Financial Management*. Cengage AU.
- 3) Kevin, S. (2022). *Fundamentals of International Financial Management, second edition*. PHI Learning Pvt. Ltd.
- 4) Vij, M. (2021). *Taxmann's International Financial Management | Text & Cases – Detailed treatise of important concepts, practical application with solved examples (both numerical & theoretical), case studies, etc.* Taxmann Publications Private Limited.
- 5) Apte, P.G., 2020, *International Financial Management*, 8th Ed., Tata McGraw Hill
- 6) Dora Hancock, 2018, *International Finance for Non-Financial Managers*, Kogan Page.
- 7) Geert Bekaert, Robert Hodrick, 2017, *International Financial Management*, 3rd Edition, Cambridge University Press.
- 8) Hanouna, P., Shapiro, A. C, 2020, *Multinational Financial Management*, 12th Ed., United Kingdom: Wiley.
- 9) Jeff Madura, 2021, *International Financial Management*, 14th Ed., Cengage Learning
- 10) Maurice D. Levi, 2022, *International Finance*, 6th Ed., Routledge.
- 11) Resnick, B. G., Eun, C. S, 2021, *International Financial Management*, 9th Edition, United Kingdom: McGraw-Hill Education.

Online References:

1. MOOC Material: *International Finance*, Created by: Marginal Revolution University, Delivered by: MRUniversity, Taught by: Alex Tabarrok and Tyler Cowen.
2. MOOC Material: *International Business I (Coursera)*, Created by: University of New Mexico, Delivered by: Coursera, Taught by: Doug E Thomas.
3. MOOC Material: *Global Strategy I: How The Global Economy Works (Coursera)*, Created by: University of Illinois , Delivered by: Coursera, Taught by: Marcelo Bucheli
4. MOOC Material: **Foreign Exchange Markets – Instruments, Risks and Derivatives**, Created by: IIM Bangalore, Delivered by: Coursera, Taught by: P C Narayan
5. <https://www.ascdegreecollege.ac.in/wp-content/uploads/2020/12/International-Financial-Management-by-Jeff-Madura.pdf>

Extra Readings for UNIT VI:

1. Journal of Business Economics (springer.com)
2. Journal of International Financial Management & Accounting
3. International Journal of Financial Management
4. International Journal of Research in Finance and Management

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	2	2	3	3	3	2	3	3	3	1
CO2	3	3	3	2	3	2	3	3	2	1
CO3	1	2	2	3	3	3	3	2	3	3
CO4	3	3	2	3	2	3	2	3	2	3
CO5	3	3	3	1	2	3	2	3	2	2

1 – Low, 2 – Medium, 3 - Strong

FMEC8/24 - ALGORITHMIC TRADING

Course Aim: This course aims to investigate various methods implemented in trading strategies with emphasis on automated trading. The course also provides a broad view of the algorithmic trading strategies, system architecture, and its risk management.

Course Outcomes: After completing this course, they should be able to:

CO1	Recognise the trends and benefits of algorithmic trading	L1
CO2	Analyze various order types and trading strategies	L3 & L4
CO3	Appraise the system architecture for algorithmic trading	L5
CO4	Obtain knowledge related to risk management in algorithmic trading	L6
CO5	Understand the importance of audit and compliance process	L2 & L6
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Flipped Learning, Blended Learning, Experiential Learning, Participative Learning, Case Study Method and Problem Based Learning

Unit I: Introduction to Algorithmic Trading: Evolution of Algorithmic Trading – Meaning of Algorithmic Trading - Different Trading Methodologies - Trends in Algorithmic Trading: Global and India - Benefits of Algorithmic Trading

Unit II: Order Types: Different Order Types - Execution Trading Strategies: **Trading Strategies:** Calendar Spread - Cash Future Arbitrage Strategy - Index Arbitrage - Pair Trading - News Based Trading Strategies - Conversion- Reversal

Unit III: Algorithmic Trading: System Architecture: Market Data - CEP Engine - Order Routing / Order Manager - Colocation - Smart Order Routing (SOR) - Connectivity Options

Unit IV: Risk management in Algorithmic Trading: Different Stages involved in Risk Management - Risk Management Specific to High Frequency & Algorithmic Trading

Unit V: Audit and Compliance Process - International Organization of Securities Commissions - Auditing Process and Requirements (As defined by NSE for member-broker) - SEBI Recommendations on Algorithmic Trading - Software Testing and Empanelment - Exchange Audits - Technology and System Audit - Compliance Requirements

Unit VI: Current Contours (for Continuous Internal Assessment Only): Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. NCFM, NCFM-Algorithmic Trading Module, Mumbai: NSE.
2. Algotrade (2023). *Algorithmic trading theory and practice - A practical guide with applications on the Vietnamese stock market*. DIMI BOOK.
3. Raja Velu, Maxence Hardy and Daniel Nehren (2017), *Algorithmic Trading and Quantitative Strategies*, CRC Press Taylor and Francis Group, Florida.
4. Ghosh, S., Donadio, S. (2019). *Learn Algorithmic Trading: Build and Deploy Algorithmic Trading Systems and Strategies Using Python and Advanced Data Analysis*. United Kingdom: Packt Publishing.

5. Conlan, C. (2020). *Algorithmic Trading with Python: Quantitative Methods and Strategy Development*. United States: Independently Published.
6. Satya R. Chakravarthy and Palash Sarkar (2020), *An Introduction to Algorithmic Finance, Algorithmic Trading and Blockchain*, Emerald Publishing, Bingley.
7. Velu, R. (2020). *Algorithmic Trading and Quantitative Strategies*. United States: CRC Press.

Online References:

1. MOOC Material: *Trading Algorithms*, Created by: Indian School of Business, Delivered by: Coursera, Taught by: Prasanna Tantri.
2. MOOC Material: *Algorithmic Trading & Quantitative Analysis Using Python*, Created by: Manak Rasu, Delivered by: Udemy, Taught by: Manak Rasu.
3. MOOC Material: *Algorithmic Trading A-Z with Python, Machine Learning & AWS*, Created by: Alexander Hagmann, Delivered by: Udemy, Taught by: Alexander Hagmann.
4. MOOC Material: *Trading Strategies in Emerging Markets Specialisation*, Created by: Indian School of Business (ISB), Delivered by: Coursera, Taught by: Ramabhadran Thirumalai.

Extra Readings for UNIT VI:

1. Quant Start
2. Quantitative Research and Trading
3. Quantpedia.com
4. The Evolution of Algorithmic Trading
5. Algorithmic Trading System
6. Algorithmic Trading Review

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	3	3	3	3	3	3
CO2	3	2	3	1	2	3	2	3	2	3
CO3	3	2	3	2	3	2	2	2	3	2
CO4	2	3	2	2	3	2	3	2	2	3
CO5	2	3	2	2	3	3	3	3	3	3

1 – Low, 2 – Medium, 3 - Strong

FMSC4/24 - CORPORATE ETHICS, GOVERNANCE AND SUSTAINABILITY

Course Aim: The aim of the course is to enable the students acquire knowledge regarding the principles of business, ethics, governance and sustainability and to enable students develop understanding of the systems and process of governance & sustainability.

Course Outcomes: At the end of the course, the students would be able to

CO1	Understand the nature and scope of Corporate Ethics like, Attributes of Ethics, Business Ethics, Management Ethics and Organizational Ethics.	L1 & L2
CO2	Know the nature, features, objectives, benefits and models of the Corporate Governance.	L2 & L3
CO3	Appraise the functioning of Corporate Board Management.	L2 & L3
CO4	Assess the principles and dimensions of sustainability reporting	L3 & L4
CO5	Analyse the social accounting, auditing, and reporting	L4 & L5
L1 - Remember; L2 - Understand; L3 - Apply; L4 - Analyze; L5 - Evaluate; L6 - Create		

Pedagogical Methods Adopted: Self Learning and Peer learning.

Unit – I: Introduction to Corporate Ethics: Approaches to Ethics – Meaning of Ethics – Major Attributes of Ethics – Business Ethics – Factors that Influence Ethics – Importance of Ethics – Ethics in Management – Organizational Ethics-Types of business Ethics-Relation between corporate responsibility & Business ethics. Individual Ethics- Professional ethics. Corporate Ethics- Ethical behavior - Ten Commandments of ethical Behavior Control & audit of ethical behavior. Basic initiatives in the field of CSR and sustainability. Socially responsible CSR and leadership. Corporate CSR reports

Unit – II: Introduction to Corporate Governance: Meaning of Corporate Governance – Definitions – Significance – Importance – Nature of Corporate Governance – Features of Corporate Governance – Objectives of Corporate Governance – Reasons for Corporate Governance Failure – Certain New Initiatives in Governance – Benefits of Corporate Governance – Consequences of Bad Governance – Requirements to Strengthen Corporate Governance – Corporate Governance Models – Global Corporate Governance Forum

Unit – III: Corporate Board Management: Structure and Composition of the Board- Composition of Board – Size of the Board – Powers of the Board of Directors – Responsibilities- Functions of the Board – Code of Conduct for Board Members – Training for the Board of Directors – Effectiveness of the Board – Evaluation of Board’s Functioning – Corporate Democracy – Shareholders Democracy

Unit – IV: Sustainability and Corporate Governance: Sustainability Reporting – Discipline- Mission – Principles – Dimensions – Corporate Governance and National Economy – World Bank Report – Development – Why It Matters?

Unit – V: Social Accounting, Auditing and Reporting: Introduction – Social Accounting – Social Auditing – Corporate Social Reporting – Auditing the Social Reporting Process.

Unit VI: Current Contours (for Continuous Internal Assessment Only)-Contemporary Developments Related to the Course during the Semester Concerned.

References:

Books:

1. Bachnik, K., Kaźmierczak, M., Rojek-Nowosielska, M., Stefańska, M., & Szumniak-Samolej, J. (2022). *Corporate social responsibility and sustainability: From Values to Impact*. Routledge.
2. Crane, A., Matten, D., Glozer, S., & Spence, L. (2019). *Business ethics: Managing corporate citizenship and sustainability in the age of globalization*. Oxford University Press, USA.
3. Marc Georgen (2018), *Corporate Governance: A Global Perspective*, Cengage Learning.
4. Rendtorff, J. D. (2019). *Philosophy of management and sustainability: Rethinking business ethics and social responsibility in sustainable development*. Emerald Group Publishing.
5. Rezaee, Z. (2019). *Business sustainability, corporate governance, and organizational ethics*. John Wiley & Sons.
6. Thomas Clarke (2017), *International Corporate Governance: A Comparative Approach*, 2nd Edition, Roulledge London New York.

Online References:

1. Swayam Course Material: Financial Management, Created by Vanitha Tripathi, Delhi University.
2. NPTEL Course Material: Course Name: Construction Economics & Finance, Module: Financial Management, Course Co-ordination: IIT Guwahati.
3. MOOC Material: *The Factors that Influence the Effectiveness of Boards and the Governance Process*, Created by: State University of New York, Delivered by: Coursera, Taught by: Vic Murray and Prof. Yvonne D. Harrison.
4. MOOC Material: *Basic Governance for Board Members*, Created by: Debi Peverill, Delivered by: Udemy, Taught by: Debi Peverill.

Extra Reading for UNIT VI:

1. CSR TIMES
2. CSR Journal
3. International Journal of Corporate Social Responsibility

Mapping with Programme Outcomes										
COs	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	3	2	3	2	3	3	2	1
CO2	3	2	2	2	3	2	2	2	3	3
CO3	3	3	3	2	2	3	2	3	2	2
CO4	2	3	2	3	2	3	3	2	1	2
CO5	2	3	2	3	3	2	3	2	3	3

1 – Low, 2 – Medium, 3 – Strong

CCPCF4/24 – STOCK MARKET RESEARCH ANALYSIS

The detailed syllabus for this course is given in the Regulation and Syllabus for Certification
Course on Professional Competency in Finance