

University of Mumbai



No. AAMS_UGS/ICC/2024-25/153

CIRCULAR:-

Attention of all the Principals of the Affiliated Colleges, Directors of the Recognized Institutions and the Head, University Departments is invited to this office Circular No. AAMS_UGS/ICC/2023-24/23 dated 08th September, 2023 relating to the NEP UG & PG Syllabus.

They are hereby informed that the recommendations made by the **Board of Studies in Business Management** at its meeting held on 12th July, 2024 and subsequently passed by the Board of Deans at its meeting held on 3rd September, 2024 vide item No. 7.2 (N) have been accepted by the Hon'ble Vice Chancellor as per the power confirmed upon him under section 12 (7) of the Maharashtra Public Universities Act, 2016 and that in accordance therewith syllabus for **M.Sc (Finance) Sem – III & IV** is introduced as per appendix (NEP 2020) with effect from the academic year 2024-25.

(The Circular is available on the University's website www.mu.ac.in).

MUMBAI – 400 032
21st September, 2024


(Dr. Prasad Karande)
REGISTRAR

To

All the Principals of the Affiliated Colleges, Directors of the Recognized Institutions and the Head, University Departments.

BOD 7.2(N) 03/09/2024

Copy forwarded with Compliments for information to:-

- 1) The Chairman, Board of Deans,
- 2) The Dean, Faculty of Commerce ,
- 3) The Chairman, **Board of Studies in Business Management**
- 4) The Director, Board of Examinations and Evaluation,
- 5) The Director, Department of Students Development,
- 6) The Director, Department of Information & Communication Technology,
- 7) The Director, Centre for Distance and Online Education (CDOE) Vidyanagari,
- 8) The Deputy Registrar, Admission, Enrolment, Eligibility & Migration Department (AEM),

Copy forwarded for information and necessary action to :-	
1	The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Dept)(AEM), dr@eligi.mu.ac.in
2	The Deputy Registrar, Result unit, Vidyanagari drresults@exam.mu.ac.in
3	The Deputy Registrar, Marks and Certificate Unit,. Vidyanagari dr.verification@mu.ac.in
4	The Deputy Registrar, Appointment Unit, Vidyanagari dr.appointment@exam.mu.ac.in
5	The Deputy Registrar, CAP Unit, Vidyanagari cap.exam@mu.ac.in
6	The Deputy Registrar, College Affiliations & Development Department (CAD), deputyregistrar.uni@gmail.com
7	The Deputy Registrar, PRO, Fort, (Publication Section), Pro@mu.ac.in
8	The Deputy Registrar, Executive Authorities Section (EA) eau120@fort.mu.ac.in He is requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to the above circular.
9	The Deputy Registrar, Research Administration & Promotion Cell (RAPC), rapc@mu.ac.in
10	The Deputy Registrar, Academic Appointments & Quality Assurance (AAQA) dy.registrar.tau.fort.mu.ac.in ar.tau@fort.mu.ac.in
11	The Deputy Registrar, College Teachers Approval Unit (CTA), concolsection@gmail.com
12	The Deputy Registrars, Finance & Accounts Section, fort draccounts@fort.mu.ac.in
13	The Deputy Registrar, Election Section, Fort drelection@election.mu.ac.in
14	The Assistant Registrar, Administrative Sub-Campus Thane, thanesubcampus@mu.ac.in
15	The Assistant Registrar, School of Engg. & Applied Sciences, Kalyan, ar.seask@mu.ac.in
16	The Assistant Registrar, Ratnagiri Sub-centre, Ratnagiri, ratnagirisubcentar@gmail.com
17	The Director, Centre for Distance and Online Education (CDOE), Vidyanagari, director@idol.mu.ac.in
18	Director, Innovation, Incubation and Linkages, Dr. Sachin Laddha pinkumanno@gmail.com
19	Director, Department of Lifelong Learning and Extension (DLLE), dlleuniversityofmumbai@gmail.com

Copy for information :-	
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2	P.A to Pro-Vice-Chancellor pvc@fort.mu.ac.in
3	P.A to Registrar, registrar@fort.mu.ac.in
4	P.A to all Deans of all Faculties
5	P.A to Finance & Account Officers, (F & A.O), camu@accounts.mu.ac.in

To,

1	The Chairman, Board of Deans pvc@fort.mu.ac.in
2	Faculty of Humanities, Dean 1. Prof.Anil Singh Dranilsingh129@gmail.com Associate Dean 2. Dr.Suchitra Naik Naiksuchitra27@gmail.com 3.Prof.Manisha Karne mkarne@economics.mu.ac.in
	Faculty of Commerce & Management, Dean 1. Dr.Kavita Laghate kavitalaghate@jbims.mu.ac.in Associate Dean 2. Dr.Ravikant Balkrishna Sangurde Ravikant.s.@somaiya.edu 3. Prin.Kishori Bhagat kishoribhagat@rediffmail.com

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As Per NEP 2020

University of Mumbai



**Title of the P.G. Program
M.Sc. (Finance)**

Syllabus for

**Semester – Sem.- III & IV
Ref: GR dated 16th May, 2023 for Credit
Structure of PG**

(With effect from the academic year 2024-25)

University of Mumbai



(As per NEP 2020)

Sr. No.	Heading	Particulars
1	Title of program O: _____: A	M.Sc. (Finance)
2	Scheme of Examination R: _____	NEP 50% Internal 50% External Semester end Examination with Individual Passing in Internal and External Examination
3	Standards of Passing R: _____	40%
4	Credit Structure R: <u>SP – 135 B</u>	Attached herewith
5	Semesters	Sem. III & IV
6	Program Academic Level	6.5
7	Pattern	Semester
8	Status	New
9	To be implemented from Academic Year	2024-25

Sign of the BOS
Chairman
Dr. Smita Shukla
Chairman
BOS in MMS

Sign of the
Offg. Associate Dean
Prof. Dr. Kishori J.
Bhagat
Department of
Commerce and
Management
University of Mumbai

Sign of the
Offg. Dean
Dr. Kavita Laghate
Department of
Commerce and
Management
University of Mumbai

Sign of the
Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology

Preamble

1) Introduction

The finance sector and companies have expanded at rapidly since liberalization and globalization of Indian economy. The emerging role of Fin-tech, innovative financial instruments, changes in the banking and capital markets are redefining the context of financial services and finance operations.

Hence, there is a growing need to narrow the gap between industry-relevant knowledge and academic education in finance domain. The M.Sc. (Finance) program brings together the latest market development in the finance industry and combines them in curriculum structure for a classroom training and learning process so as to extend in-depth understanding various aspects of problems and financial decision-making with high industry application relevance. The program introduces the learners to a broad range of courses relevant for financial decision making and the financial markets.

2) Aims and Objectives

The broad aims of the program are following: The learners of M.Sc. (Finance) program should be able to understand and master core concepts and methods in the finance discipline and its application in business practice. Using financial techniques and methods they should be able to function effectively in diverse business contexts. Using the understanding of finance, they should be able to communicate effectively in financial business settings and negotiations.

The broad objectives of M.Sc. (Finance) program are:

- To build capabilities in learners for applying core concepts and tools in the finance discipline to develop innovative strategies for addressing current and emerging business problems.
- To enhance capabilities of learners to integrate and apply key analytical methods from finance domain to solve current and emerging business problems.
- To expand capabilities of learners to assess financial aspects of local and global business contexts and use this assessment as input to the current and emerging business decisions.

3) Learning Outcomes

- PO1 - Students will be able to understand the fundamental financial concepts like time value of money, risk-expected return tradeoffs, Fintech, and others.
- PO2 - Students will be able to apply and critically evaluate theories of financial statements and related analysis
- PO3 - Students will be able to build basic knowledge of the financial institutional in context of financial decisions and transactions such institutions undertake.
- PO4 - Students will be able to apply and critically evaluate corporate finance techniques
- PO5 - Students will be able to infer the impact of economics and factors, business decisions, etc., on a firm's performance.
- PO6 - Students will be able to engage and work effectively in groups and use team experiences and propose strategies for future improvement.
- PO7 - Students will be able to identify, define and analyze problems and identify and create process to solve them
- PO8 - Students will be able to exercise critical judgement in creating new understanding
- PO9 - Students will be able to demonstrate advanced numeracy and quantitative skills
- PO 10 - Students will be able to identify and evaluate social, cultural, global, ethical responsibilities and issues

4) Any other point (if any) : NIL

5) Credit Structure of the Program (Sem III & IV)

Post Graduate Programs in University

R: SP – 135 B

Exit option: PG Diploma (44 Credits) after Three Year UG Degree

II	6.5	Sem III	Technical Analysis (Credits 2)	(Credits 4) Infrastructure and Project Finance (OR) Mutual Fund			Research Project (Credits 4)	22	PG Degree After 3- YrUG
			Derivatives (Credits 2)						
			Fixed Income Securities (Credits 2)						
			Global Portfolio Investment Analysis (Credits 4)						
			Entrepreneurial Finance, Venture Capital and Private Equity (Credits 4)						
		Sem IV	Mergers, Acquisitions and Corporate Restructuring (Credits 4)	(Credits 4) Emerging Trends in Environmental Accounting and Finance (OR) Wealth Management (OR) Trading Strategies and Financial Models			Dissertation (Credits 6)	22	
Structured Finance (Credits 4)									
Risk Management (Credits 2)									
International Finance (Credits 2)									
Cum. Cr. for 1 Yr PG Degree			28	8	4	4	--	44	
Cum. Cr. including 2 Yr PG Degree			54	16	4	4	10	88	

Note: * The number of courses can vary for totaling 14 Credits for Major Mandatory Courses in a semester as illustrated.

Syllabus M.Sc. (Finance) (Sem.- III)

Two Years M.Sc. (Finance) Programme

Course Structure

S.Y. M.Sc. (Finance)

(To be implemented from Academic Year- 2024-25)

No. of Courses	Semester III	Credits
1	Mandatory	
1(A)	Technical Analysis	02
1(B)	Derivatives	02
1(C)	Fixed Income Securities	02
1(D)	Global Portfolio Investment Analysis	04
1(E)	Entrepreneurial Finance, Venture Capital and Private Equity	04
2	Electives (one)	
	Infrastructure and Project Finance (OR) Mutual Fund	04
3	RM	
	--	--
4	OJT/FP	
	--	--
5	RP	
	Research Project	04
Total Credits		22

Technical Analysis
(Mandatory Course - 2 Credits)

Course Outcomes:

- To understanding the basics and historical context of technical analysis and its significance in financial markets.
- To apply and interpret various types of charts and understand their implications for market trends.
- To analyze different market trends and phases of price activity, and recognize key chart patterns to predict future market movements.
- To evaluate major technical analysis theories, to analyze and forecast price movements.
- To evaluate technical and sentimental indicators to assess market conditions, generate trading signals, and understand market sentiment.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Background and Basics, Constructing and Interpreting Charts	10
2	Trends, Phases of Price Activity and Pattern Recognition	10
3	Technical Analysis Theories, Technical Indicators, Sentimental Indicators	10
Total		30

Sr. No.	Modules / Units
1	Background and Basics, Constructing and Interpreting Charts
	• Technical analysis as an integral part of market analysis; History of technical analysis. • Tools - the construction of different types of charts - line chart, bar chart, point and figure chart, candlestick charts etc.; What to Look for on the Charts.
2	Trends, Phases of Price Activity and Pattern Recognition
	• Basics of pattern recognition; determination of price trends; support and resistance levels; real time presentations at end of session; moving averages; gaps; volume; comparative relative strength. • Phases of price activity - pattern recognition on bar charts, pattern recognition on point and figure charts, pattern recognition on candlestick charting; turning points; continuation patterns; climax; candlesticks;

	volume; point and figure; behavioral; pairs trading / derivatives.
3	Technical Analysis Theories, Technical Indicators, Sentimental Indicators
	• Dow theory, Elliott wave theory, Fibonacci sequence, Gann analysis, Cycle analysis. • RSI indicator; Stochastics; Rate of change (RoC) indicator; MACD; Bollinger bands; Moving averages. • Volatility index (VIX), Put/call ratio, Bull/bear indicators, Dow's psychology of bull and bear markets, Insider activity

Reference Books:

- Technical Analysis: The Complete Resource for Financial Market Technicians by Charles D.Kirkpatrick, Julie R. Dahlquist (2011), Pearson Education.

Required Texts:

- Technical Analysis: An Introduction to the Core Concepts by Mark Mobius (2011), John Wiley & Sons.
- Technical Analysis of Stock Trends by Edwards and Magee, CRC Press, 2007.

Derivatives
(Major/ Mandatory Course - 2 Credits)

Course Outcomes:

- To understand the historical evolution and fundamental concepts of derivatives, including their role, purpose, and evolution in financial markets.
- To apply proficiency in analyzing and utilizing forward contracts and futures contracts, including their structure, mechanics, and applications in hedging and speculation.
- To analyze options contracts, including their types, pricing models, and strategies for risk management and speculative trading.
- To evaluate mechanics and applications of swaps, understanding their role in managing interest rate, currency, and other financial risks.
- To evaluate derivative instruments effectively in real-world scenarios, evaluating their impact on risk management, portfolio optimization, and financial decision-making.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Evolution of Derivatives	03
2	Forward Market and Products	03
3	Futures Market and Products	06
4	Option Market and Products	06
5	Option Pricing	06
6	Swaps	06
Total		30

Sr. No.	Modules / Units
1	Evolution of Derivatives
	Concept of derivatives, definitions, purposes and criticisms; derivative markets; past and present; difference between exchange traded and OTC derivatives; derivative market participants - hedgers, arbitrageurs and speculators.
2	Forward Market and Products
	Structure and role of global forward market; concept, characteristics and definition; types of forward contracts - equity forward, currency forward, interest rate forward, forward rate agreement; valuation of forward; generic valuation principles; valuation of individual product; hedging using forwards; credit risk and forward contracts.
3	Futures Market and Products
	Structure and role of global future market including leading futures exchanges; concept, characteristics and definition; trading mechanism and concept of margins; futures vs. forward; types of futures contracts - stock futures, index futures, currency futures, interest rate futures, commodity futures; generic valuation principles; valuation of individual futures product; basis risk; daily and final settlement price; hedging using futures; speculation using futures.
4	Option Market and Products
	Structure and role of global option market including OTC and leading; options exchanges; concept, characteristics and definition; option terminology; American style and European style option; option payoffs; trading mechanism and concept of margins; futures vs options; types of options - stock options, index options, currency options, commodity options, options on futures, interest rate options;
5	Option Pricing
	Factors affecting option pricing, upper and lower bounds of option prices, binomial model, Black and Scholes option pricing model, option Greeks (delta, gamma, theta, vega, rho), delta hedging; option strategies (spreads, straddles and strangles); exotic options - hedging with exotic options, pricing of exotic options
6	Swaps
	Concept, characteristics and definition, Types of swaps, Interest rate swap (IRS), Currency swap, Equity swap, Other types of swaps, valuation of swaps, Swaption, credit risk and swaps, strategies and applications of swaps

Required Texts:

- Options, Futures and Other Derivatives by John C. Hull (2010), Prentice Hall India

Reference Text:

- Derivatives: Valuation and Risk Management by David A. Dubofsky and Thomas W. Miller (2002), Oxford University Press.

Fixed Income Securities
(Major/ Mandatory Course - 2 Credits)

Course Outcome:

- To understand the term structure of interest rates and various yield measures, and their importance in fixed income markets.
- To understand the shapes and changes of yield curves, understanding their implications for market conditions and economic forecasts.
- To apply understanding of key bond-related concepts, including yield to maturity, duration, and convexity, and their practical applications.
- To analyze yield curves for accurate bond pricing and interpret these curves to make informed investment decisions.
- To evaluate the characteristics of asset-backed and mortgage-backed securities and develop effective fixed income investment strategies.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Term Structure of Interest rates and yield measures.	3
2	Yield curves, shapes of yield curves and analysing changes in the yield curves.	6
3	Concept of annuity, bond yield, coupon, yield to maturity, yield to carry, yield conventions, yield decomposition, pull to par, Duration, Macaulay's Duration and Modified duration and convexity.	6
4	Bond pricing using yield curves and interpretation of yield curves.	6
5	Asset backed securities and Mortgage-backed securities	3
6	Fixed Income strategies	6
Total		30

Sr. No.	Modules / Units
1	Term Structure of Interest rates and yield measures.
	Administered interest rate mechanism, Monetary policy, Role of the central bank.
2	Yield curves, shapes of yield curves and analysing changes in the yield curves.
	Relation between interest rates, prices and yields. Impact on the prices of debt securities and marked to market changes in debt portfolios.
3	Bond Analysis
	Concept of annuity, bond yield, coupon, yield to maturity, yield to carry, yield conventions, yield decomposition, pull to par, Duration, Macaulay's Duration and Modified duration and convexity.
4	Bond pricing using yield curves and interpretation of yield curves.
	Shapes of the yield curves, Interpretation of the phases of the economy based on the yield curve shape.
5	Asset backed securities and Mortgage-backed securities
	Aspect of valuation of securities and liquidity, concept of credit rating, steps in credit rating, structuring of the debt instrument
6.	Fixed Income strategies
	Bullets, Barbells, Butterflies, Ladders, Immunisation and hedging.

Required Text:

- Fixed Income Securities: Tools for Today's Markets, 2nd ed. by Bruce Tuckman, Wiley.
- Understanding and Managing Interest Rate Risks, by Ren-Raw Chen, World Scientific.
- Options, Futures, and Other Derivatives 6e by John C. Hull, Pearson/Prentice Hall.

Reference Text:

- Credit Derivatives, by M. Ansen, F. Fabozzi, M. Choudhry, and R.-R. Chen, Wiley.
- Fixed Income Securities: Valuation, Risk, and Risk Management by Pietro Veronesi (2010), John Wiley and Sons.

Global Portfolio Investment Analysis
(Major/ Mandatory Course - 4 Credits)

Course Outcomes:

- To understand the need for financial planning, the concept of a portfolio, and the importance of diversification across different asset classes and their correlations.
- To understand how to measure and analyze the riskiness of returns, including the concept and calculation of beta, and apply Markowitz theory and the mean-variance concept to construct efficient portfolios.
- To apply Arbitrage Pricing Theory and the single index model for portfolio construction, and understand the creation and management of investment policies, including the framework for monitoring and rebalancing portfolios.
- To analyze performance attribution analysis and evaluate portfolio performance, incorporating global investment performance standards and understanding stock market indices, including capitalization-weighted indices.
- To create effective equity and debt portfolio practices, differentiate between active and passive investing, and utilize profilers in portfolio construction to optimize investment outcomes.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Need for financial Planning and concept of a portfolio.	03
2	Different asset classes and their correlation	06
3	Concept of riskiness of return and measurement of beta.	06
4	Markowitz theory, Mean variance concept and Efficient frontier.	06
5	Arbitrage Pricing Theory and the single index model of portfolio construction	06
6	Investment Policy and portfolio creation	03
7	Framework for investment policy, monitoring and rebalancing.	06
8	Performance attribution analysis & evaluation of portfolio performance	06
9	Global Investment Performance Standards.	06
10	Stock Market Indices, Capitalization weighing indices, Active and Passive Investing	06
11	Equity and debt portfolio practices and use of profilers in portfolio construction.	06
Total		60

Sr. No.	Modules / Units
1	financial Planning
	•Need & Investing based on plans and need •Concept of a portfolio.
2	Different asset classes and their correlation
	•Equity debt and call money instruments. •Investment peculiarities and market efficiencies.
3	Riskiness of return
	• Concept of riskiness of return • Measurement of beta.
4	Markowitz theory
	Markowitz theory, Mean variance concept and Efficient frontier
5	Arbitrage Pricing Theory
	Arbitrage Pricing Theory and the single index model of portfolio construction
6	Investment Policy and portfolio creation
	Components of a portfolio based upon specific requirements
7	Framework for investment policy, monitoring and rebalancing.
	• Investment policies for institutions and individuals. • Risk profiles, risk tolerance and construction of portfolios
8	Performance attribution analysis & evaluation of portfolio performance
	•Jensen's alpha, Sharpe ratio, Treynor Ratio. •Decomposition of returns
9	Global Investment Performance Standards
10	Stock Market Indices, Capitalization weighing indices, Active and Passive Investing
11	Equity and debt portfolio practices and use of profilers in portfolio construction.

Required Text:

- Modern Portfolio Theory and Investment Analysis by Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, William N. Goetzmann (2010), John Wiley and Sons

Reference Text

- Quantitative Methods for Portfolio Analysis by Takeaki Kariya (1993), Kluwer Academic Publishers.

Entrepreneurial Finance, Venture Capital and Private Equity
(Major/ Mandatory Course - 4 Credits)

Course Outcomes:

- To understand finances for start-ups and scale-ups effectively.
- To apply and Navigate the venture capital process and evaluate early-stage investments.
- To Understand the lifecycle of private equity investments and valuation techniques.
- To analyse, assess and manage financial risks in entrepreneurial and investment contexts.
- To apply knowledge of funding strategies and deal structuring to real-world scenarios.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction to Entrepreneurial Finance	05
2	Sources of Financing for Startups	05
3	Venture Capital Ecosystem	05
4	Investment Process in Venture Capital	05
5	Valuation Methods	05
6	Structuring Venture Capital Deals	05
7	Managing Venture Capital Investments	05
8	Private Equity Overview	05
9	Leveraged Buyouts (LBOs)	05
10	Growth Capital and Mezzanine Financing	05
11	Exit Strategies	05
12	Performance Measurement and Trends in VC and PE	05
Total		60

Sr. No.	Modules / Units
1	Introduction to Entrepreneurial Finance
	• Definition and scope of entrepreneurial finance • The role of finance in new ventures • Financial challenges faced by startups
2	Sources of Financing for Startups
	• Bootstrapping, angel investors, and venture capital • Government grants and crowdfunding • Corporate venture capital
3	Venture Capital Ecosystem
	• Structure of venture capital firms • Fundraising and fund structure • The role of limited partners and general partners
4	Investment Process in Venture Capital
	• Deal sourcing and screening • Due diligence process • Negotiating term sheets and deal terms
5	Valuation Methods
	• Valuation techniques for startups • DCF, and venture capital method • Challenges in valuing early-stage companies
6	Structuring Venture Capital Deals
	• Equity vs. convertible securities • Anti-dilution provisions and liquidation preferences • Incentive structures and vesting schedules
7	Managing Venture Capital Investments
	• Post-investment value addition • Governance and control mechanisms • Monitoring and performance measurement
8	Private Equity Overview
	• Differences between venture capital and private equity • Types of private equity investments • The private equity investment process
9	Leveraged Buyouts (LBOs)

	•Structure and mechanics of LBOs •Financing LBOs •Risk and return in LBO transactions
10	Growth Capital and Mezzanine Financing
	•Growth equity investments •Mezzanine financing structures •Strategic considerations for growth financing
11	Exit Strategies
	•Initial Public Offerings (IPOs) •Trade sales and secondary buyouts •Exit timing and strategy
12	Performance Measurement and Trends in VC and PE
	•Measuring returns and performance benchmarks •Emerging trends in venture capital and private equity •The future landscape of entrepreneurial finance

Required Text:

- Corporate Finance by Stephen A. Ross, Randolph Westerfield, Jeffrey Jaffe (2006), McGrawHill/Irwin.

Reference Text:

- "Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist" by Brad Feld and Jason Mendelson
- "Private Equity at Work: When Wall Street Manages Main Street" by Eileen Appelbaum and Rosemary Batt
- "Early Stage Valuation" by Antonella Puca

Infrastructure and Project Finance
(Elective Course - 4 Credits) (Any One)

Course Outcomes:

- To remember skills in project planning, analysis, and social cost-benefit analysis to evaluate the viability and impact of infrastructure projects.
- To get the ability to conduct thorough project risk and return analysis, ensuring informed decision-making for project investments.
- To understand various sources of project financing, including public-private partnerships, project funding, loan syndication, and asset securitization, and apply these to real-world scenarios.
- To understand techniques for due diligence and project appraisal, including earned value analysis, to ensure projects are on track and financially sound.
- To evaluate the regulatory framework governing infrastructure and project finance, along with strategies for debt restructuring to maintain project financial health.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Project planning	03
2	Project analysis	06
3	Social cost benefit analysis	06
4	Project risk and return analysis	03
5	Sources of project financing	03
6	Infrastructure Development	03
7	Public private partnership model	06
8	Due Diligence and Project Appraisal	03
9	Earned Value Analysis of project	03
10	Project Funding	06

11	Loan syndication	03
12	Debt restructuring	06
13	Asset securitization	03
14	Regulatory framework	06
Total		60

Sr. No.	Modules / Units
1	Project planning
	Generation and screening of project idea, tools for identifying investment opportunity, corporate appraisal, project rating index and sources of positive NPV.
2	Project analysis
	Market and demand analysis, technical and financial analysis, legal and political analysis.
3	Social cost benefit analysis
	Determination of economic life inflation, investment and capital budgeting, rationale for SCBA, UNDO approach, Little and Mirlees approach, SCBA by financial institutions.
4	Project risk and return analysis
	Sources and measurement of risk, assessment of credit, cash and working capital risk , gestation periods and project rate of return, due diligence in appraisal of infrastructure projects
5	Sources of project financing
	Lending schemes of financial institutions, venture capital- concepts, functions and schemes, equity and debt special purpose vehicles and Viability Gap Financing (VGF).
6	Infrastructure Development
	Introduction, multiplier effects of infrastructure development on economic development of the nation
7	Public private partnership model

	Concept, scheme and modalities of PPP, Financial and Economic Appraisal of infrastructure Projects; PPP models like Build-operate-transfer (BOT), Build own-operate-transfer (BOOT), build own-operate (BOO), Build- lease transfer (BLT), Design-build-finance operate (DBFO), Design-build-operate transfer (DBOT) and Design-construct manage-finance (DCMF).
8	Due Diligence and Project Appraisal
	IRR, MIRR, NPV, Pay-Back period, Profitability Index.
9	Earned Value Analysis of project
	Risk management of infrastructure projects, risk mitigation strategies.
10	Project Funding
	Sponsors, other equity providers, senior debt providers, junior debt provider.
11	Loan syndication
	Loan origination, process, closing and foreclosure.
12	Debt restructuring
	RBI guidelines, process and procedures.
13	Asset securitization
	Concept, types and advantages
14	Regulatory framework
	SARFAESI Act / IBC regulations, Land Acquisition Bill, related provisions of Income Tax Act

Required Text:

- Prasanna Chandra, Projects Planning, Analysis, Selection, Implementation & Review
- Abhijit Dutta, Infrastructure Finance

Reference Books:

- M.R. Umarji, Securitization and Reconstruction of Financial Assets and enforcement of security Interest
- Prabuddha K Das , PPP and Project Finance.

Mutual Fund
(Elective Course - 4 Credits) (Any One)

Course Outcome:

- To understand the basics of mutual funds, and key constituents, along with the legal and regulatory framework governing them.
- To gain insights into the calculation and significance of Net Asset Value (NAV) and its role in mutual fund operations.
- To understand effective strategies for marketing mutual fund units, ensuring broad investor reach and engagement.
- To apply skills in managing mutual fund portfolios and measuring their performance using various analytical tools and techniques.
- To analyze the mechanisms and practices in place for protecting investor interests and ensuring transparency and accountability in mutual fund operations.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction	06
2	Different types of funds	06
3	Structure and key constituents of mutual fund	06
4	Legal and regulatory framework	06
5	Net Asset Value	06
6	Financial planning	06
7	Marketing of units	06
8	Portfolio management	06
9	Measuring fund performance	06
10	Protection of investors	06
Total		60

Sr. No.	Modules / Units
1	Introduction
	Investment avenues, concept and role of mutual fund, comparison of mutual fund with equity and bond instruments and history of MF in India.
2	Different types of funds
	Scheme selection, expense ratio, income ratio, portfolio turnover rate and transaction costs.
3	Structure and key constituents of mutual fund
	Sponsor, trustees, AMC, custodians, depositories and distributors.
4	Legal and regulatory framework
	AMFI, RBI and Companies Act.
5	Net Asset Value
	Calculation of NAV, accounting, valuation and tax implications.
6	Financial planning
	Overview of financial plan, financial planning strategies, asset allocation and wealth management.
7	Marketing of units
	Selecting the right investment products for investors, fund distribution and channel management practices.
8	Portfolio management
	Risk & return trade off and risk adjusted returns.
9	Measuring fund performance
	Benchmarking and quantitative measures used for analysis.
10	Protection of investors
	RTI, customer grievances.

Required Text:

- Sundar Sankaran , Indian Mutual Funds Handbook .
- Rutherford Ronald K., The Complete Guide to Managing a Portfolio of Mutual Funds.

Reference Books:

- Sen, Joy deep , Mutual Funds in India: Vehicle for Fixed Income Investments .; NCFM AMFI Book

Syllabus M.Sc. (Finance) (Sem.- IV)

No. of Courses	Semester IV	Credits
1	<i>Mandatory</i>	
1(A)	Mergers, Acquisitions and Corporate Restructuring	04
1(B)	Structured Finance	04
1(C)	Risk Management	02
1(D)	International Finance	02
2	<i>Electives (one)</i>	
	Emerging Trends in Environmental Accounting and Finance (OR) Wealth Management (OR) Trading Strategies and Financial Models	04
3	<i>RM</i>	
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4	<i>OJT/FP</i>	
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5	<i>RP</i>	
	Dissertation	06
Total Credits		22

Mergers, Acquisitions and Corporate Restructuring
(Mandatory Course - 4 Credits)

Course Outcome:

- To understand the strategic approaches for creating value through mergers, acquisitions, and corporate restructuring, and their impact on corporate growth and market positioning.
- To gain comprehensive knowledge of the stages of an M&A transaction, including the detailed mechanics involved in executing these transactions successfully.
- To develop proficiency in valuation techniques specific to mergers and acquisitions, and formulate effective financial strategies to support these activities.
- To evaluate the legal, accounting, and tax aspects of M&A to ensure compliance and optimize transaction outcomes.
- To implement effective acquisition integration frameworks to ensure seamless transitions and maximize the benefits of mergers and acquisitions.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Strategies for Value Creation	09
2	Stages of an M&A Transaction	06
3	Mechanics of M&A	06
4	Valuation for Mergers and Acquisition	09
5	Financial Strategy	06
6	Legal aspects of M&A	06
7	Accounting for M&A	06
8	Tax Aspects OF M&A	06
9	Developing the Acquisition Integration Framework	06
Total		60

Sr. No.	Modules / Units
1	Strategies for Value Creation
	M&A as a tool of competitive advantage. Performance of M&A: why do acquisitions fail? Strategic, financial and managerial drivers of M&A activity. Reasons for M&A and its influence on shareholder value. Types of corporate control strategies. Major forces driving domestic and international M&A activity. Major players on the M&A landscape and their incentives. Analysis of successful and failed M&As. Likely future of M&A activity.
2	Stages of an M&A Transaction.
	Overview of the stages of an M&A transaction, from origination to closing. Origination of M&A ideas, clarifying strategy, valuing the target, carrying out due diligence assessment and developing an implementation plan. Process timeline for an M&A transaction. Role of synergies in M&A analysis. Performance of pro forma “merger consequences” analysis. Tactical considerations before approaching a potential target.
3	Mechanics of M&A
	Setting up an M&A function; Aligning M&A with business strategy; Active deal generation; Other sources of deals; Typical deal stages; Deal documentation; Valuations and deal returns; Due Diligence; Post acquisition integration.
4	Valuation for Mergers and Acquisition
	Valuation techniques appropriate to M&A analysis. Valuing synergies. Control and liquidity discount/premium. Pricing acquisitions. Meeting the challenges of sum of the parts valuation. Estimating the cost of capital for business units. Estimating the business unit cost of capital. Peer group analysis and benchmarking. Applying peer group analysis. Valuing the business units. Estimating a target capital structure, Valuation for mergers and acquisitions.
5	Financial Strategy
	The M&A as an effective corporate finance strategy. Build or buy decisions: striking the right balance. Leveraging financial assets through an M&A. Preparing the stage for a successful acquisition. Financial and non-financial criteria for acquisitions. Pitfalls and rebalancing the risk reward ratio. Cost reducing and revenue enhancing synergies. Purchasers motivated by diversification. The approach and requirements of financial

	purchasers. Valuing a consideration other than cash
6	Legal aspects of M&A
	• Company Law Provisions: Statutory framework for compromises, arrangements and amalgamations. Drafting of the scheme. Approval of the scheme by members and creditors. Court's Sanction of the scheme. Legal aspects of valuation of shares and share exchange ratios. Issue and allotment of shares. Standard time-schedule for procedural formalities of completing an M&A transaction. Takeover by acquisition of shares. • SEBI (Substantial Acquisition of Shares & Takeover Code) Provisions: Overview of the SEBI (Substantial Acquisition of Shares & Takeover Code). Takeover of an unlisted company by acquiring controlling interest. Takeover of a listed company. Procedural formalities. • Competition Law Provisions. Overview of the Competition Act, 2002. Anticompetitive agreements. Abuse of dominance. Meaning and definition of combinations. Concept of void combinations and exceptions. Market dominance of a group in and outside India. Concept of control of affairs or management. Overview of the role, powers and functions of the Competition Commission of India. • FEMA Provisions Relating To Cross-Border M&A: Overview of provisions of the Foreign Exchange Management Act, 1999 relating to issue and transfer of securities between residents and non-residents, external commercial borrowings, American depository receipts, overseas investment by Indian companies, foreign direct investments, and wholly-owned subsidiaries of Indian companies abroad.
7	Accounting for M&A
	Overview of Accounting Standard 14 and international accounting standards relating to M&A. Equity method of accounting for investments. Accounting for minority interest. Treatment of minority interest for enterprise valuation. Accounting for ESOPs, restructuring charges, discontinuance of operations. Recognizing asset impairments.
8	Tax Aspects OF M&A
	Tax aspects of choice of entity. Definition of amalgamation under Income Tax Act, 1962. Amortization of certain preliminary expenses. Tax treatment of expenditure of amalgamation, purchase of patents, copyrights, scientific research. Cost of assets acquired through M&A. Capital gains on assets transferred in M&A. Carry forward and set off of accumulated losses and unabsorbed depreciation. Deferred income taxes and reporting of income tax. Tax issue in structuring debt financing. Estimating the tax bases of target Company's assets. Those effects of ESOPs

9	Developing the Acquisition Integration Framework
	Prioritizing integration issues and ensuring buy-in by both organizations. Integrating organizations and major projects. The integration framework and its elements, and how its use will benefit you. Facilitating individual and small task group working relationships. Identifying the connections between each element and acquisition strategic intent. Achieving common focus by reaching agreement on the details of each element.

Required Text:

- Mergers & Acquisitions by J. Fred Weston, Samuel C. Weaver (2010), McGraw-Hill Publications
- Mergers and Acquisitions: A Step-by-Step Legal and Practical Guide by Edwin L. Miller, Jr. (2008), John Wiley and Sons.

Reference Text:

- Mergers, Acquisitions, and Other Restructuring Activities by Donald M. DePamphilis (2010) Academic Press

Structured Finance
(Mandatory Course - 4 Credits)

Course Outcome:

- To understand the concepts, principles, and significance of structured finance in the financial markets.
- To apply the ratings and perform cost-benefit analysis of asset-backed securities (ABS), and understand the mechanics and applications of credit swaps.
- To develop proficiency in the design, pricing, and applications of medium-term notes (MTNs), equity-linked structured notes, convertibles, hybrids, and mezzanine debt.
- To evaluate to structure leveraged finance deals and understands the economics driving financial innovation and the development of new financial instruments.
- To evaluate the latest trends and innovations in financial instruments, evaluating their impact and potential uses in structured finance.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction to Structured Finance.	06
2	ABS: Ratings and Cost-Benefit Analysis	06
3	Credit swaps	09
4	MTNs and equity-linked structured notes	09
5	Design and pricing of convertible, hybrids and mezzanine debt	09
6	Structuring leveraged finance	09
7	Economics of Financial Innovation	06
8	Understanding New Instruments	06
Total		60

Sr. No.	Modules / Units
1	Introduction to structured finance.
	Financing with Asset-Backed Securities
2	ABS: Ratings and Cost-Benefit Analysis
	Collateralized Debt Obligations: Structure and Pricing; Collateralized Loan Obligations
3	Credit swaps
	Credit Derivatives; Synthetic ABS and related instruments.
4	MTNs and equity-linked structured notes
5	Design and pricing of convertible, hybrids and mezzanine debt
6	Structuring leveraged finance
7	Economics of Financial Innovation
	Competition and the Product Cycle in Financial Innovations; Sources of Innovations; Transactions and Monitoring Costs; Regulation, Taxes, Constraints; Market Segmentation
8	Understanding New Instruments
	The Building Block Approach; Hedging and Managing New Instruments.

Required Text:

- Elements of Structured Finance by Ann Rutledge, Sylvain Raines (2009), Oxford University Press.

Reference Text:

- Structured Finance: Techniques, Products and Market by Stefano Gatti (2005), Springer.

Risk Management
(Mandatory Course - 2 Credits)

Course Outcome:

- To understand the basic principles, concepts, and importance of risk management in a business context.
- To develop skills to identify, assess, and manage credit risk, including the evaluation of creditworthiness and mitigation strategies.
- To develop proficiency in recognizing and managing operational risks, including risks arising from internal processes, people, and systems.
- To integrate risk management with business continuity planning to ensure organizational resilience and preparedness for disruptions.
- To develop the ability to communicate risk-related information effectively across the organization, ensuring informed decision-making and stakeholder awareness.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction	06
2	Credit Risk Management	06
3	Operational Risk	06
4	Risk management and business continuity	06
5	Risk communication	06
Total		30

Sr. No.	Modules / Units
1	Introduction
	- Overview of financial risk management and its importance in today's global marketplace; - Need for understanding, measuring, and managing risk; market and investment risk, overview of value at risk (VaR). - Methods and principles of risk; identifying and Estimating Risk Exposure; - Risk Management Process - Establishing the context; identifying risks; assessment of risks.
2	Credit Risk Management
	Techniques to manage, measure, and control credit risks inherent in loans, bonds, and derivative products; regulatory perspectives on best practices for managing and monitoring credit risks; measurement, and control of credit risks.
3	Operational Risk
	Major categories of operational risk; overview of quantitative and qualitative tools; interactions between operational risk failures and other types of risks.
4	Risk management and business continuity
5	Risk communication
	Bow tie diagrams; risk communication in practice

Required Text:

- Essentials of Risk Management in Finance by By Anthony Tarantino, Deborah Cernauskas (2010), John Wiley and Sons.

Reference Text:

- Financial Risk Management by Frank J Fabozzi (2010), John Wiley and Sons.

International Finance
(Mandatory Course - 2 Credits)

Course Outcome:

- To understand a comprehensive understanding of the institutional background of international finance, including key players, organizations, and regulatory frameworks.
- To develop insights into currency markets, including the mechanisms of spot and forward exchange rates, and their practical applications in global financial transactions.
- To understand the roles and functions of currency futures, swaps, and options in managing currency risk and enhancing financial strategies in international markets.
- To understand skills in identifying and managing exchange rate exposure and risk, employing hedging techniques and strategies to mitigate potential financial losses.
- To apply international financial tools and techniques to navigate global economic uncertainties and optimize financial outcomes for multinational corporations and financial institutions.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Institutional Background of International Finance	03
2	Currency Markets	06
3	Forward Exchange Rates for Currency	06
4	The Market for Currency Futures	06
5	Markets for Currency Swaps	03
6	Currency Options	03
7	Exchange Risk, Exposure, and Risk Management	03
Total		60

Sr. No.	Modules / Units
1	Institutional Background of International Finance
	International Payment Mechanism; International ("Euro") Money and Bond Markets; Balance of Payments; Exchange-Rate Regimes.
2	Currency Markets
	Spot Markets for Foreign Currency; Exchange Rates; Major Markets for Foreign Exchange; Law of One Price for Spot Exchange Quotes; Translating FC Figures: Nominal Rates, PPP Rates, and Deviations from PPP;
3	Forward Exchange Rates for Currency
	Introduction to Forward Contracts; Relation between Exchange and Money Markets; Law of One Price and Covered Interest Parity; Market Value of an Outstanding Forward Contract; Forward Forward and the Forward Rate Agreement; Using Forwards for International Financial Management.
4	The Market for Currency Futures
	Handling Default Risk in Forward Markets; How Futures Contracts Differ from Forward Markets; Effect of Marking to Market on Futures Prices; Hedging with Futures Contracts; Pros and Cons of Futures Contracts Relative to Forward Contracts.
5	Markets for Currency Swaps
	Fixed-for-Fixed Currency Swaps; Interest-Rate Swaps; Cross-Currency Swaps.
6	Currency Options
	Concepts and Uses of Currency Options; Institutional Aspects of Options Markets; Options on Futures; Using Options for Arbitrage, Hedging; Speculation; Hedging and Valuation .
7	Exchange Risk, Exposure, and Risk Management
	What Makes Forex Markets Tick? Behavior of Spot Exchange Rates; PPP Theory and the Behavior of the Real Exchange Rate; Exchange Rates and Economic Policy Fundamentals; Measuring Exposure to Exchange Rates; Concepts of Risk and Exposure: Measuring and Hedging of Operating Exposure; Accounting Exposure;

Required Text:

- International Finance, 5e by Maurice Levi, Routledge, 2009.
- International Finance, by Apte, Tata-McGraw-Hill, 2011.

Reference Text:

- International Finance: Theory and Policy by Steve Suranovic (McGraw-Hill) 2011.

Emerging Trends in Environmental Accounting and Finance
(Elective Course - 4 Credits) (Any One)

Course Outcome:

- To understand a comprehensive understanding of the principles, concepts, and evolving importance of environmental accounting and finance.
- To understand the regulatory frameworks, standards, and guidelines governing environmental accounting and reporting practices globally.
- To develop skills to effectively manage and report environmental data, including disclosure requirements and performance measurement metrics.
- To apply knowledge of carbon accounting methodologies, emissions trading systems, and strategies for integrating environmental considerations into financial decision-making.
- To evaluate the financial impacts of environmental risks and opportunities, including mitigation strategies and risk management frameworks.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction to Environmental Accounting and Finance	03
2	Regulatory Frameworks and Standards	06
3	Environmental Reporting and Disclosure	06
4	Environmental Performance Measurement	06
5	Carbon Accounting and Emissions Trading	06
6	Financial Implications of Environmental Risks	03
7	Sustainable Finance and Green Investments	03
8	Corporate Social Responsibility (CSR) and Environmental Governance	03
9	Environmental Auditing and Assurance	06
10	Technology and Innovation in Environmental Accounting	06
11	Global Trends and Case Studies in Environmental Finance	06
12	Future Directions and Career Opportunities	06
Total		60

Sr. No.	Modules / Units
1	Introduction to Environmental Accounting and Finance
	• Definition and scope of environmental accounting and finance • Importance of environmental considerations in business • Historical evolution and current landscape
2	Regulatory Frameworks and Standards
	• Overview of key regulations and standards • The role of governments and international organizations • Compliance and reporting requirements
3	Environmental Reporting and Disclosure
	• Types of environmental reports (e.g., sustainability reports, integrated reports) • Best practices in environmental disclosure • Stakeholder engagement and materiality assessment
4	Environmental Performance Measurement
	• Key performance indicators (KPIs) for environmental performance • Metrics for measuring carbon footprint, energy use, water consumption, and waste • Tools and techniques for environmental performance assessment
5	Carbon Accounting and Emissions Trading
	• Principles of carbon accounting • Cap-and-trade systems and carbon markets • Strategies for reducing carbon emissions
6	Financial Implications of Environmental Risks
	• Identifying and assessing environmental risks • Financial impact of environmental risks on businesses • Strategies for mitigating environmental risks
7	Sustainable Finance and Green Investments
	• Overview of sustainable finance and green bonds • Criteria for green investments • Role of financial institutions in promoting sustainability
8	Corporate Social Responsibility (CSR) and Environmental Governance
	• The role of CSR in environmental sustainability • Best practices in environmental governance • Integrating CSR into corporate strategy
9	Environmental Auditing and Assurance
	• Principles and practices of environmental auditing • Third-party assurance of environmental reports

	Challenges and future trends in environmental auditing
10	Technology and Innovation in Environmental Accounting
	- The role of technology in environmental data collection and analysis - Innovations in environmental accounting software and tools - Case studies of technology-driven environmental initiatives
11	Global Trends and Case Studies in Environmental Finance
	- Emerging global trends in environmental finance - Regional differences and case studies - Lessons learned from global practices
12	Future Directions and Career Opportunities
	- Future trends and developments in environmental accounting and finance - Career opportunities in the field - Skills and qualifications needed for success

Required Text:

- "Accounting for Sustainability: Practical Insights" by Anthony Hopwood, Jeffrey Unerman, and Jessica Fries
- "Environmental Finance: A Guide to Environmental Risk Assessment and Financial Products" by Sonia Labatt and Rodney R. White
- "Green and Sustainable Finance: Principles and Practice" by Simon Thompson

Wealth Management
(Elective Course - 4 Credits) (Any One)

Course Outcomes:

- To understand the foundational principles, concepts, and practices of wealth management in addressing the financial needs and expectations of clients.
- To develop insights into identifying and understanding client needs, expectations, and goals to tailor personalized wealth management strategies.
- To develop proficiency in investment planning and asset allocation strategies across various wealth creating asset classes and alternative assets.
- To construct and manage portfolios effectively through portfolio modeling techniques, ensuring diversification and risk management aligned with client objectives.
- The apply the knowledge and skills in insurance planning, retirement planning, and estate planning to optimize financial security and wealth preservation for clients

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction to Wealth Management	06
2	Need and expectations of clients	06
3	Investment planning	06
4	Wealth creating asset classes	09
5	Alternate assets	06
6	Portfolio modelling	09
7	Insurance Planning	06
8	Retirement Planning	06
9	Estate planning	06
Total		60

Sr. No.	Modules / Units
1	Introduction to Wealth Management
	Meaning, scope, components, process of wealth management, functions of investment advisor, independent advisors, wire house wealth managers, code of ethics for wealth managers.
2	Need and expectations of clients
	Wealth management client categories mass affluent, high net worth individual, ultra high net worth, unified households, software solutions for advisors, client on boarding- profiling, financial planning, goal setting, managing asset, controlling liabilities, planning taxes, diversification, life cycle management
3	Investment planning
	Types of investment risk return expectations versus risk appetite.
4	Wealth creating asset classes
	Equity Investment: Sector exposure and diversification, fundamental and technical analysis, investment and speculation, leveraging. Debt Investment: Deposits and debt securities, yields and interest rate risk, concentration risk, passive investments in debt.
5	Alternate assets
	Gold, real estate, art, mutual fund, derivatives and structured funds, hedge funds and commodities.
6	Portfolio modelling
	Portfolio modelling, monitoring tolerance and rebalancing, substitution, portfolio performance measurement, attribution and reporting, portfolio management models, pooled funds, technology absorption and use of social media in wealth management and advantages to investment advisors.
7	Insurance Planning
	Life insurance- types of policies, general insurance, health insurance- mediclaim, calculation of Human Life Value.
8	Retirement Planning
	Purpose and need, life cycle planning, wealth creation- factors and principles, pre and post – retirement strategies- tax treatment, various tax savings schemes, pension schemes, annuities.
9	Estate planning
	Estate planning concept, types of will, requirements of a valid will, trust – deductions – exemptions.

Required Text:

- Harold R Evensky , Wealth Management
- Nalinipruva Tripathi , Wealth Management
- S. K. Bagchi , Wealth Management

Reference Texts:

- Herbert B Mayo , Investments-An Introduction,
- S. Kevin , Portfolio Management
- Suyash Bhatt , Wealth Management
- V.K. Bhalla , Investment Management
- Jones, Wiley , Investment: Principles and concepts

Trading Strategies and Financial Models
(Elective Course - 4 Credits) (Any One)

Course Outcome:

- To understand the fundamental principles and concepts of trading strategies, including market microstructure and their applications in financial markets.
- To develop skills in technical analysis, chart patterns, and quantitative trading strategies to make informed trading decisions and optimize portfolio performance.
- To understand effective risk management techniques in trading and gain insights into algorithmic trading strategies to automate execution and enhance trading efficiency.
- To evaluate the influence of behavioral biases on trading decisions and understand derivatives trading strategies to hedge risks and maximize returns.
- To apply knowledge in performance measurement and evaluation of trading strategies, and stay updated on emerging trends in trading techniques and financial models.

Modules at a Glance

Sr. No.	Modules	No. of Hours
1	Introduction to Trading Strategies	03
2	Market Microstructure and Trading	06
3	Technical Analysis and Chart Patterns	03
4	Quantitative Trading Strategies	06
5	Risk Management in Trading	06
6	Algorithmic Trading	06
7	Behavioral Finance and Trading	06
8	Derivatives and Trading Strategies	06
9	Fixed Income Trading Strategies	03
10	Equity Trading Strategies	03
11	Performance Measurement and Evaluation	03
12	Emerging Trends in Trading and Financial Models	03
Total		60

Sr. No.	Modules / Units
1	Introduction to Trading Strategies
	- Overview of trading strategies - Fundamental vs. technical analysis - Types of trading strategies (e.g., trend following, mean reversion, arbitrage)
2	Market Microstructure and Trading
	- Structure of financial markets - Order types and execution - Impact of market microstructure on trading strategies
3	Technical Analysis and Chart Patterns
	- Basics of technical analysis - Common chart patterns (e.g., head and shoulders, double top/bottom) - Technical indicators and oscillators (e.g., moving averages, RSI)
4	Quantitative Trading Strategies
	- Introduction to quantitative trading - Statistical arbitrage and pairs trading - Machine learning in trading
5	Risk Management in Trading
	- Identifying and measuring risk - Risk management techniques (e.g., stop-loss orders, position sizing) - VaR and stress testing
6	Algorithmic Trading
	- Basics of algorithmic trading - Designing and implementing trading algorithms - Backtesting and optimization of algorithms
7	Behavioral Finance and Trading
	- Introduction to behavioral finance - Common behavioral biases affecting traders - Incorporating behavioral insights into trading strategies
8	Derivatives and Trading Strategies
	- Overview of derivatives (e.g., options, futures) - Using derivatives in trading strategies - Hedging and speculative strategies with derivatives
9	Fixed Income Trading Strategies
	- Basics of fixed income securities - Trading strategies in the fixed income market - Yield curve analysis and interest rate models

10	Equity Trading Strategies
	• Fundamental analysis of equities • Growth vs. value investing • Momentum and contrarian strategies
11	Performance Measurement and Evaluation
	• Metrics for evaluating trading strategy performance • Sharpe ratio, alpha, and beta • Benchmarking and performance attribution
12	Emerging Trends in Trading and Financial Models
	• Recent developments in trading strategies • Impact of AI and big data on trading • Future trends in financial modeling and trading

Required Text:

- "Quantitative Trading: How to Build Your Own Algorithmic Trading Business" by Ernest P. Chan
- "Algorithmic Trading: Winning Strategies and Their Rationale" by Ernie Chan
- "Technical Analysis of the Financial Markets" by John J. Murphy

Letter Grades and Grade Points:

Semester GPA/ Programme CGPA Semester/ Programme	% of Marks	Alpha-Sign/ Letter Grade Result	Grading Point
9.00 - 10.00	90.0 - 100	O (Outstanding)	10
8.00 - < 9.00	80.0 - < 90.0	A+ (Excellent)	9
7.00 - < 8.00	70.0 - < 80.0	A (Very Good)	8
6.00 - < 7.00	60.0 - < 70.0	B+ (Good)	7
5.50 - < 6.00	55.0 - < 60.0	B (Above Average)	6
5.00 - < 5.50	50.0 - < 55.0	C (Average)	5
4.00 - < 5.00	40.0 - < 50.0	P (Pass)	4
Below 4.00	Below 40.0	F (Fail)	0
Ab (Absent)	-	Ab (Absent)	0

**Sign of the BOS
Chairman
Dr. Smita Shukla
Chairman
BOS in MMS**

**Sign of the
Offg. Associate Dean
Prof. Dr. Kishori J.
Bhagat
Department of
Commerce and
Management
University of Mumbai**

**Sign of the
Offg. Dean
Dr. Kavita Laghate
Department of
Commerce and
Management
University of Mumbai**

**Sign of the
Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology**