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PUNE – 411018

## CENTRE FOR ONLINE LEARNING

PIMPRI, PUNE

## SYLLABUS FOR

# MASTER OF BUSINESS ADMINISTRATION (M.B.A)

**Academic Year 2025**

## Semester-III FinTech Specialization

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|---|---|---|---|---|---|
| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT301 | | | **Type** | Specialization Course |
| **Course Title** | FinTech Management | | | | |

## Course Description:

This course will help the learners to understand the rapidly changing financial terminologies. Apply technology to various components & processes of financial services. Evaluate the impact of Fintech solutions on business sectors and customers. Remember various concepts such as Crowd funding, Cryptocurrency, blockchain, and machine learning. Understand the concept of Cryptocurrency and blockchain and its application in finance sector. Describe alternative finances Cryptocurrencies, blockchain, and the technologies supporting these.

## Course Objectives:

1) To understand the term related to FinTech & its applications
2) Apply technology to various components & processes of financial services.
3) Learning new concepts in today's rapidly changing finance sector.
4) Understand the concept of Cryptocurrency and blockchain and its application in finance sector

## Course Outline:

**Unit 1: Introduction to FinTech:** Concept, origin & meaning of the word FinTech, Emergence of FinTech in India, Significance of FinTech, Advantages of FinTech, Goals of FinTech, Key important areas in FinTech.

**Unit 2: Role of FinTech in economic development:** Opportunities and Challenges of Fintech, Fintech Evolution in different sectors of the industry, Banks, Start-ups and Emerging Markets, Recent developments in FinTech. Future prospects and potential issues with Fintech.

**Unit 3: Analytical decision-making process FinTech:** Analytical decision-making process, Characteristics of the analytical decision-making process in Fintech Management, Skills of a good business analyst using Big Data, FinTech as an aid to customer satisfaction.

**Unit 4: Introduction to Data Science and AI & ML:** Meaning of Data Science, AI & ML, Use Cases in Business and Scope, Scientific Method, Modelling Concepts, Skills of a good business analyst using Big Data, Artificial intelligence, and machine learning to evaluate investment opportunities.

**Unit 5: Technology, Payments & FinTech:** Understand the concept of Crypto currency, block chain, Artificial Intelligence, machine learning. Fintech users, Individual Payments, RTGS Systems, Immediate Payment Service (IMPS), Unified Payments Interface (UPI). Legal and Regulatory Implications of Crypto currencies, Payment systems, and their regulations.

**Unit 6: Legal and Regulatory Implications:** Legal and regulatory framework of Crypto currencies, Payment systems, and their regulations, optimize portfolios and mitigate risks in Fintech management. Overview of R Programming in Fintech and Business analytics applications in Healthcare Industry.

**Unit 7: Fintech in Practice:** Understanding Fintech, Fintech's Expanding Horizons, Digital cash & FinTech users, Types of FinTech, Benefits of FinTech for Personal Finance Management, Benefits of FinTech for Personal Finance Management, Opportunities & challenges of FinTech.

**Unit 8: Digital Finance and Alternative Finance:** A Brief History of Financial Innovation, Digitization of Financial Services, Crowd funding, Charity and Equity, P2P and Marketplace Lending, Introduction to the concept of Initial Coin Offering. Industry Showcase: How AI is transforming the future of FinTech.

**Unit 9: FinTech Regulation and RegTech:** FinTech Regulations: Global Regulations and Domestic Regulations, Evolution of RegTech, RegTech Ecosystem: Financial Institutions, RegTech Ecosystem: Startups RegTech, Startups: Challenges, RegTech Ecosystem: Regulators, Use of AI in regulation and Fraud detection.

**Unit 10: Banking, Financial Services and Insurance (BFSI) & Fintech:** Introduction to Fintech, Future of Fintech, Modern Banking Landscape, Dissecting Financial Services Value chain, Introduction to the Fintech landscape.

**Unit 11: FinTech & Branchless Banking:** Introduction to Financial Inclusion, Logic and logistics, Vehicles for Financial Inclusion, Business Correspondents, Business facilitators, Digital Banking Products for Financial Inclusion.

**Unit 12: New age Payment System:** Overview of global and domestic payment systems, Immediate Payment Service (IMPS), National Unified USSD Platform (NUUP) and UPI, Participants in UPI, Benefits to Participants, National Automated Clearing House (NACH) Aadhaar Enabled Payment System (AEPS), e-KYC, Cheque truncation System (CTS), National Financial Switch (NFS), RTGS, NEFT.

**Unit 13: FinTech Innovation and Banking:** Innovative Technologies in Banking: Artificial Intelligence, Machine Learning, Big Data, Block Chain, Forex Settlement.

**Unit 14: Regulators in the Fintech domain:** RBI, SEBI, International Financial Services Centres Authority (IFSCA), Financial Intelligence Unit, PFRDA, and IRDAI; Regulatory Sandbox.

**Unit 15: Ethics in Fintech:** Ethical issues relating to FinTech; ethical ways in which emerging technologies should be implemented; Cybersecurity, financial crimes, and ethics in online financial transactions; human biases and prejudices in AI; fintech for financial inclusion.

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO301.1 | **Remember** | Remember various concepts such as Crowd funding, Cryptocurrency, blockchain, and machine learning. |
| CO301.2 | **Apply** | Apply technology to various components & processes of financial services |
| CO301.3 | **Analyze** | Analyze the impact of Fintech solutions on business sectors and customers. |
| CO301.4 | **Create** | A strong & understanding environment with FinTech applications for the various stakeholders. |

## Suggested Reading:

1. **Ethereum:** Blockchains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations by Henning Diedrich, CreateSpace Independent Publishing Platform, ISBN-13: 978-1523930470.
2. **Blockchain Applications:** A Hands-on Approach. by Arshdeep Bahga and Vijay Madisetti, Vpt, ISBN- 13: 978-0996025560.
3. **Bitcoin and Cryptocurrency Technologies:** A Comprehensive Introduction by Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, Princeton University Press, ISBN-13: 978-0691171692.
4. **Fintech for Beginners, Author Swanson Seth, Publisher:** Createspace Independent Publishing Platform ISBN: 9781539919315,9781539919315 Edition 1
5. **Fintech Bigtech And Banks Digitalization and Its Impact on Banking Business Models (Hb 2019) Author:** Tanda, Publisher- SPRINGER, ISBN 9783030224257

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| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT302 | | | **Type** | Specialization Course |
| **Course Title** | Financial Institutions and Banking | | | | |

## Course Description:

This course is structured to help students master the established management principles and to confront the perplexing issues of risk, regulation, technology, and competition, that bankers and other financial-service managers see as their greatest challenges for the present and future. Students will be exposed to key trends and changes in the financial services sector. In addition, students will learn about various career opportunities in the banking and financial institution field. With this relevant information, students will be able to grasp the rapid changes that are happening in this course area and the real world. Content and discussion will cover both domestic and international banking activities.

## Course Objectives:

1) To be able to familiarize the students with the concepts of banking and financial institutions
2) To be able to understand functions of financial institutions
3) To be able to describe components of the financial system
4) To be able to understand the concept, features, importance, and problems faced by cooperative banks.

## Course Outline:

**Unit 1: Introduction to Indian Financial System:** Financial system: Significance and Definition, Functions of the Financial System, Structure of the Financial System, Indian Financial System, Major Issues in the Indian Financial System: Narsimham Committee Report (1991)

**Unit 2: Introduction to Banking Sector in India:** Meaning and Definition of Banking, Functions of Bank, History of Banking, Classifications of Banks, Reforms in Banking Sector, E-Banking.

**Unit 3: Reserve Bank of India:** History of RBI, Role, and Functions of Reserve Bank in India, Structure of RBI, RBI weapons of Control, Departments of RBI.

**Unit 4: Co-Operative Banking in India:** Meaning and Definition of Co-Operative Banks, Structure, and Features of Co-Operative Banks, History of Co-operative Banks in India, Types of Co-Operative Banks, Problems of Co-Operative Banks.

**Unit 5: Commercial Banking:** Meaning and Evolution of Commercial Banks, Functions and Role of Commercial Bank, Types of Commercial Banks, Commercial Banking System, Agency and General Utility Services Provided by Modern Commercial Banks.

**Unit 6: Banking Systems:** Unit Banking and Branch Banking, Deposit Banking, Mixed Banking, and Industrial Banking, Group, Chain, and Correspondent Banking Systems.

**Unit 7: Banking Regulation Act 1949:** Need for Banking Act in India, History of Banking Legislation in India, Objectives of the Banking Regulation Act, 1949, Major Provisions of the Act, Defects in the Indian Banking Legislation.

**Unit 8: Central Banking:** Meaning and Definition, Evolution of Central Banks, Functions of Central Banks, Role of Central bank in a Developing Economy, Instruments of Monetary Control.

**Unit 9: Retail Banking:** Meaning and Definition of Retail Banking, Factors affecting Growth of Retail Banking, Advantages and Disadvantages of Retail Banking, Challenges to Retail Banking in India, Strategies for Increasing Retail Banking Business, Emerging Issues in Retail Banking.

**Unit 10: Banker and Customer Relationship:** Meaning and Definition of Banker and Customer, General Relationship between Banker and Customer, Banker as Agent and Banker as Trustee, Types of Customers, Services to Different Customer Groups.

**Unit 11: Non-Banking Financial Companies:** Meaning and Definition of Non-Banking Financial Companies, Classification of Non-Banking Financial Companies, Functions of Non-Banking Financial Companies, Salient Features of Non-Banking Financial Companies, Regulations of Non-Banking Financial Companies.

**Unit 12: Specialized Financial Institutions:** Need and Importance of Specialized Financial Institutions (SFI), Types of Specialized Financial Institutions, Industrial Finance Corporations of India (I.F.C.I.), State Financial Corporations (SFCs), Industrial Development Bank of India (IDBI), Unit Trust of India (U.T.I), Industrial Credit and Investment Corporation of India (ICICI)

**Unit 13: Investment Institutions and Financial Services:** Financial Service, Merchant Banking, Lease Financing, Merchant Banking, Housing Finance, Venture Capital, Insurance, Mutual Funds, Factoring.

**Unit 14: Financial Markets and Instruments in Money Market:** Financial Markets, Capital Markets, Money Market, Distinction Between Capital and Money Market, Stock Exchanges.

**Unit 15: International Financial Institutions:** History of International Financial Institution, Types of International Financial Institution, World Bank, International Monetary Fund (IMF.)

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO302.1 | **Remember** | Learn various functions of financial institutions. |
| CO302.2 | **Understand** | Understand the basic concepts of banking and financial institutions. |
| CO302.3 | **Analyze** | Exhibit the components of the financial system |
| CO302.4 | **Apply** | Differentiate problems faced by cooperative banks and financial institutions. |

## Suggested Reading:

1. Ruddar Datt & K.P. M. Sundharam, Indian Economy, 40th Revised Edition, S. Chand & Co. Ltd.
2. H.R. Machiraju, Merchant banking, 3rd Edition, New Age International Publishers
3. Textbook of Banking and Finance by N.K. Sharma
4. Commercial Banking in India: A Beginners Module developed by Mr. Abhijeet Roy, International Management Institute, New Delhi
5. H.R. Machiraju, Merchant banking, 3rdEdition, New Age International Publishers
6. M.Y. Khan, Indian Financial System, 4th Edition, Tata McGraw-Hill

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| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT303 | | | **Type** | Specialization Course |
| **Course Title** | Quantitative Methods in Project Management | | | | |

## Course Description:

This course reviews descriptive statistics, exploratory data, and probability distributions. We will then examine the theory and methods of statistical inference, emphasizing those applications most useful in modeling business problems. Topics include sampling theory, estimation, hypothesis testing, linear regression, analysis of variance, and several advanced applications of the general linear model.

## Course Objectives:

1) Conduct a comparative evaluation of quantitative, qualitative, experimental, and survey research methods;
2) Design research based upon the research question and constraints;
3) Conduct descriptive and inferential statistical analysis using various tests;
4) Generate research questions and use statistical tools learned in the class to answer the questions.

## Course Outline:

**Unit 1: Quantitative Methods in Project Management:** The History of Statistics & Operations Research, Nature of Statistics & Operations Research, Operations Research Approach to Problem Solving, Methodology of Operations Research, Applications of Quantitative Methods in Projects.

**Unit 2: Data Presentation using Tables & Charts:** Statistics for Projects, Classification of Data, Tabulation of Data, Graphical Presentation of Data, Good & Bad Data Presentation.

**Unit 3: Properties of Numerical Data:** of Central Tendency, Measures of Dispersion.

**Unit 4: Correlation Analysis:** Covariance and Correlation in Projects, Correlation Analysis using Scatter Plots, Karl Pearson's Coefficient of Correlation, Spearman's Rank Correlation Coefficient.

**Unit 5: Simple and Multiple Regressions:** Simple Regression Analysis, Multiple Regression Analysis, Assessing the Regression Equation.

**Unit 6: Probability:** Notation and Terminology from Set Theory, Addition Theory of Probability, Conditional Probability, Multiplication Theory of Probability, Applications of Bayes' Theorem.

**Unit 7: Probability Distribution:** Random Variables and Their Functions in Projects, Probability Distributions for Project Managers, Binomial Distribution, Poisson Distribution, Normal Distribution, The "S" Curve

**Unit 8: Estimation and Sampling Distributions:** Point Estimation for Population Parameter, Interval Estimation for Population Parameter, Law of Large Numbers and the Central Limit Theorem, Standardized Sampling Distributions, Confidence Intervals, Determination of Sample Size.

**Unit 9: Parametric Hypothesis Testing for Projects:** The Type 1 and Type 2 Error, Interval of Acceptance, testing for the Validity of the Hypothesis, Large Sample Test for Population Mean, Small Sample Test for Population Mean, The Comparison of Two Populations, Analysis of Variance.

**Unit 10: Non-Parametric Hypothesis Testing for Projects:** Runs Test for Randomness of Data, Mann-Whitney U Test, Wilcoxon Matched-Pairs Signed Rank Test, Kruskal-Wallis Test, Spearman's Rank Correlation, Chi-Square Tests.

**Unit 11: Linear Programming Problem (LPP):** Variables, Constraints, Linear Programming–Formulation, Graphical Solutions to LPP, Simplex Solutions to LPP, Transportation Models as Special Case of LPP, Assignment Models as Special Case of Transportation Models.

**Unit 12: Single Server Queuing Theory:** Analyzing Queuing Process, Constituents of Queuing System, Service Facility, Queuing Discipline, Kendall Notations, Applications of Single Server Model in Projects.

**Unit 13: Monte Carle Simulation:** Simulation Procedure, Applications of Simulation in Projects.

**Unit 14: Games Theory:** Fundamental Principles of Game Theory, Reducing by Dominance, Saddle Point, Strictly Determined Game, Mixing Strategies, Flow of Solution, Assumptions for Games Theory, and Applications of Games Theory in Projects.

**Unit 15: Decision Theory:** Decision-making Process, Decision Making under Certainty, Decision Making under Uncertainty, Decision Making under Risk, Decision Tree.

**Unit 16: Six Sigma for Project Management:** Six Sigma Methodologies, Meaning of 3.4 Defective Parts per Million, Six Sigma and Process Capability, Quality Function Deployment, Validating the Quality Function Deployment Analysis.

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO303.1 | **Understand** | Understand various tools to test statically analyses. |

| | | |
|---|---|---|
| CO303.2 | **Analyze** | Able to generate research questions for testing. |
| CO303.3 | **Apply** | Easily conduct a comparative evaluation of research methods. |
| CO303.4 | **Create** | Able to design research questions and constraints. |

## Reference Books:

1. Quantitative Methods in Project Management – John C. Goodpasture – J. Ross Publishing, Inc.
2. A Guide to the Project Management Body of Knowledge (PMBOK Guide) — 2000 Edition, Project Management Institute, Newtown Square, PA.
3. Good Pasture, John C., Managing Projects for Value, Management Concepts, Vienna, VA, 2001.
4. Downing, Douglas and Clark, Jeffery, Statistics the Easy Way, Barrons Educational Series, Hauppauge, NY, 1997.
5. Operations Research: Theory and Applications – J. K. Sharma - Macmillian Operations Research: Problems and Solutions – J. K. Sharma – Macmillian
6. Business Statistics – Naval Bajpai – Pearson Education
7. Statistical Methods – S.P. Gupta
8. Statistics for Management – Levin, and Rubin – Pearson Education
9. Statistics for Business – Stine and Foster – Pearson Education

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| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT304 | | | **Type** | Specialization Course |
| **Course Title** | E-Commerce & Global Financial Trends | | | | |

## Course Description:

The goal of this course is to provide students with a deep understanding of financial management issues in a global setting. The course aims to help students develop analytical tools that incorporate key international considerations into fundamental financial decisions. The cases provide opportunities to build the skills needed to create and capture value across borders.

## Course Objectives:

1) To develop capabilities, skills, and knowledge for making sound financial decisions
2) To develop students on "how to run their own MNC and write a feasibility report"
3) To be able to solve simple cases

## Course Outline:

**Unit 1 Introduction to E-Commerce:** Meaning, Definition, advantages, risk, origin & working of an E-Commerce

**Unit 2 Scope of E-Commerce:** The Digital Revolution and Society, The Digital and Social Worlds, The Digital Economy, The Digital Enterprise, Virtual Communities, Online Communities, etc.

**Unit 3 Emerging E-Commerce Platforms:** E-Business, Electronic Markets, and Networks; The Content and Framework of E-Commerce, Classification of E-Commerce by the Nature of the Transactions and the Relationships Among Participants.

**Unit 4 E-Commerce Business Models:** Integrating the Marketplace with the Marketspace, Web 2.0. Drivers, Benefits, and Limitations of E-Commerce, Impact of E-Commerce on business, government, customers, citizens, and society.

**Unit 5 Mobile Commerce:** Social Commerce and IoT, Mobile Commerce, Attributes Applications and Benefits of M-Commerce, Mobile Marketing - Shopping and Advertising. Social Commerce: Social Commerce,

**Unit 6 E-Commerce and Social Media:** Social Business (Enterprise), Social Business Networks and Social Enterprise, Social Media, Platforms for Social Networking; Social Media Marketing, Enterprise 2.0,

Improved Business Models. Entrepreneur Networks, Enterprise Social Networks, The Benefits and Limitations of Social Commerce, Benefits to Customers, Retailers, Employees

**Unit 7 Consumer-to-Consumer Electronic Commerce (C2C):** Person-to-Person models. Internet of Things: Concept of IoT, Smart Homes and Appliances, Smart Cities, Smart Cars, Wearable Computing, and Smart Gadgets.

**Unit 8 Digital Business Ecosystem:** Electronic Commerce Mechanisms, Online Purchasing Process, E-Marketplaces- Types, Components and Participants, Disintermediation and Reintermediation; Customer Shopping Mechanisms, Websites, Malls, and Portals, Websites, Electronic Malls, Web (Information) Portals. Intermediaries:

**Unit 9 Intermediaries in E-Marketplaces:** Role of Intermediaries in E-Marketplaces, Merchant Solutions: Electronic Catalogues, Search Engines, and Shopping Carts, Electronic Catalogues, E-Commerce Search Activities, Auctions - Traditional Auctions Versus E-Auctions, Dynamic Pricing.

**Unit 10 Global Financial Trends:** Digital Payments: Smart Cards, Stored-Value Cards, EC Micropayments, Payment Gateways, Mobile Payments, Digital, and Virtual Currencies, Security, Ethical, Legal, Privacy, and Technology Issues.

**Unit 11 Digital Business Applications:** Electronic Retailing: B2C Electronic Retailing, Characteristics, Advantages, Limitations, E-Tailing Business Models, Classification of Models by Distribution Channel, Referring Directories, Malls with Shared Services. Social Shopping, Concept, Benefits and Drivers, Social Shopping Aids

**Unit 12 Changing faces of Marketplaces:** Understanding, Reviews, Ratings of various Marketplaces, Real-Time Online Shopping. The Online Versus Off-Line Competition, Click-and Brick models, Product and Service Customization and Personalization. Fintech: E-Banking, Mobile Banking, Pure Virtual Banks, Insurance, and Stock Trading, Other Mobile Finance Applications.

**Unit 13 Digital Government:** Government to-Citizens, Government-to-Business, Government-to-Government, Government-to-Employees Models, Internal Efficiency and Effectiveness, E-Government and Social Networking, M-Government. E-Learning, E-Training, and E-Books, Online Corporate Training, Social Networks, and E-Learning, E-Learning Management Systems, Electronic Books.

**Unit 14 Digital Business Applications:** Online Travel and Tourism Services, Characteristics of Online Travel, Benefits, Limitations, and Competition in Online Travel Services. E-Employment, Online Job Market, Social Networks Based Job Markets, Social Recruiting, Virtual Job Fairs and Recruiting Events, Benefits, and Limitations of the Electronic Job Market.

**Unit 15 Innovation in the E-World: E-Health:** Definition, Electronic Medical Record Systems (EMR), Doctors' System, Patients Services, Medical Devices, and Patients Surveillance. Entertainment, Media & Gaming, Service Industry Consumer Applications. Digital Products, Internet TV and Internet Radio, Social Television (TV) Mobile Entertainment, Mobile Marketing, Mobile Streaming Music and Video Providers, Gaming - Mobile Games, Educational Social Games; Mobile Gambling, Mobility, and Sports; Social Entertainment, etc.

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO304.1 | **Remember** | Demonstrate the wide spectrum of E-Commerce & understand its overall impact on the global finance |
| CO304.2 | **Understand** | Understand the fast-changing electronic world with the international technology |
| CO304.3 | **Analyze** | Analyze the changing pattern and adopt to these rapid changes to be ahead in the competition |
| CO304.4 | **Apply** | Apply E-Commerce & its latest utilities through various applications & channels to Demonstrate appositive change |

## Reference Books:

1. 4th edition, "E-Business and E-Commerce Management", Dave Chaffey
2. Financial Management by Jonathan Berk, Peter DeMarzo, and Ashok Thampy (Pearson Publication)
3. Financial Management by Khan and Jain (TATA McGraw-Hill)
4. Financial Management by I.M.Pandey (Vikas Publication)
5. Financial Management Principle and Practices by S. Sudarsana Reddy (Himalaya Publication)
6. Financial Management by Prasanna Chandra, TMH, 7th Edition

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|---|---|---|---|---|---|
| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT305 | | | **Type** | Specialization Course |
| **Course Title** | Security Analysis and Portfolio Management | | | | |

## Course Description:

Security analysis and portfolio management course helps students to understand the investment field for sound investment decisions making. This course is designed to emphasize both theoretical and analytical aspects of investment decisions and deals with modern investment theoretical concepts and instruments. Security Analysis is the subject to study the composition and performance of stocks in capital market. The stocks are analyzed using tools of fundamental analysis and technical analysis. Portfolio management refers to the management or administration of a portfolio of securities to protect and enhance the value of the underlying investment. It is the management of various securities (shares, bonds, etc.) and other assets (e.g. real estate), to meet specified investment goals for the benefit of the investors. It helps to reduce risk without sacrificing returns.

## Course Objectives:

1) To familiarize with the fundamentals of security analysis and portfolio management concepts;
2) To provide a conceptual insight to the valuation of securities;
3) To provide an insight about the relationship of risk and return; and
4) To be able to measure the return according to the expectations of the investors and portfolio management practices in India.

## Course Outline:

**Unit 1: Nature and Scope of Investments:** Introduction: Investment- Meaning and Concept, Types of Investment, Securities, Financial System, and Financial Market, Security Market.

**Unit 2: Risk and Return:** Measures of Return, Risk, Measuring the Risk of Expected rate of Returns, Measuring Systematic Risk

**Unit 3: Security Market in India-I:** Security Markets– Introduction, New Issue Market (Primary Market), Stock Exchanges (Secondary market), Derivative Market, Functioning of Security Market, Market Index, Regulation of Security Market in India.

**Unit 4: Security Market in India-II:** Listing, Trading, Clearing, and Settlement.

**Unit 5: Fundamental Analysis:** Fundamental Analysis, Equity Valuation Process, Advantages of Fundamental Analysis, Disadvantages of Fundamental Analysis.

**Unit 6: Technical Analysis:** Technical Analysis, Technical Analysis vs. Fundamental Analysis, Types of Charts, Basic Technical Tools, Market Indicators, Dow Theory, Strengths and Weaknesses of Technical Analysis.

**Unit 7: Equity Stock Valuation Models:** Equity Valuation- Introduction, Approaches to Valuation of Equity Stock, Methods of Equity Stock Valuation.

**Unit 8: Bond Valuation Models:** Bond– Introduction, Valuation of Bond, Components of Bond Valuation.

**Unit 9: Portfolio Management:** Management of Investments, Portfolio Management– Basics, Portfolio Management Strategies, Portfolio Management Services.

**Unit 10: Portfolio Theories and Portfolio Construction:** Portfolio Theories– Introduction, Markowitz Portfolio Optimization Model, Sharpe Single Index Model, Capital Asset Pricing Model, Arbitrage Pricing Theory, Asset Allocation Strategies.

**Unit 11: Portfolio Evaluation and Revision:** Portfolio Evaluation, Portfolio Revision.

**Unit 12: Investment Avenues:** Investment Avenues, Classification of Various Financial Instruments, Real Estate, Commodities, and Self-Assessment Questions.

**Unit 13: Personal Financial Management:** Personal Financial Management, Financial Planning Process, Personal Budget, Parameters to Choose Your Financial Planner, Types of Other Financial Advisors, Asset Allocation.

**Unit 14: Tax Planning:** Tax Planning- Introduction, Tax Avoidance vs. Tax Evasion, Tax Planning Basics, Consequences of Avoidance, Ways to do Tax Planning, Income Tax, Tax Planning Benefits, Penalties under Income Tax Act for Tax Evasion, Self-Assessment Questions.

**Unit 15: Wealth Management:** Wealth Management, Private Wealth Management, Discipline of Wealth, Wealth Management Customers, Market Models, Features/ Characteristics of Good Wealth Management, Importance of Wealth Management.

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO305.1 | **Understand** | Learn the basic terms of security market in India. |

| | | |
|---|---|---|
| CO305.2 | **Apply** | Apply the fundamental and technical analysis terminology for valuation of securities. |
| CO305.3 | **Evaluate** | Match the expectation of the investors and portfolio management practices. |
| CO305.4 | **Analyze** | Analyze self-financial management for choosing financial planner. |

## Reference Books:

1. Aradhana, V.A., Security Analysis & Portfolio Management, Himalaya Publishing House, New Delhi.
2. Bhalla, V.K., Security Analysis & Portfolio Management S. Chand& Co., New Delhi.
3. M. Ranganathan and R. Madhumathi: Investment Analysis and Portfolio Management, Pearson Education, New Delhi.
4. Prasanna Chandra: Investment Analysis and Portfolio Management, Tata McGraw- Hill, New Delhi.
5. Bharti V. Phathak: Indian Financial System, Pearson Education, New Delhi

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|---|---|---|---|---|---|
| **Semester** | 3 | **Course Credits** | 4 | **Specialization** | FinTech |
| **Course Code** | OMBFT306 | | | **Type** | Specialization Course |
| **Course Title** | Security Analysis and Portfolio Management | | | | |

## Course Description:

This course will be useful for students to know about the concept of financial market and its use in an organization. A financial market brings buyers and sellers together to trade in financial assets. Money markets are used by the government and corporate entities to borrow and lend in the short term. Capital markets are used for long-term assets, which have maturities of greater than one year.

## Course Objectives:

1) To make students familiar with the analytical tools used for financial analysis;
2) To understand the accounting aspects;
3) To get acquainted with the concept of the IFRS;
4) To have knowledge of convergence of Indian Accounting Standards with the IFRS; and
5) To know the comparative analysis of Indian GAAP and the IFRS

## Course Outline:

**Unit 1: Financial Institutions:** Different Groups of Institutions, Reserve Bank of India, Commercial Banks, Development Financial Institutions, Insurance Institutions, and Other Financial Institutions.

**Unit 2: Securities and Exchange Board of India:** Overview of the Securities and Exchange Board of India Act, 1992, Powers and Functions of SEBI, Investigations by SEBI, Registration Certificate by SEBI, Penalties, and Adjudication, Securities Appellate Tribunals, and Private Placement to Qualified Institutional Buyers.

**Unit 3: Non-Banking Financial Companies:** Functions of Non-Banking Financial Companies, Role of Different Non-Banking Financial Companies, Regulations Regarding Non-Banking Financial Companies, Causes for Failure of NBFCs.

**Unit 4: Venture Capital:** Functions of Venture Capital, Modes of Finance by Venture Capital, Role of SEBI in Venture Capital, and Venture Capital Scenario in India.

**Unit 5: Stock Exchanges in India:** Functions of Stock Exchange, Bombay Stock Exchange, National Stock Exchange, Trading in Stock Exchange, and Depositories Services.

**Unit 6: Stock Markets Indicators and Interest Rates:** Objectives of Indices, Types of Indices, Sensex, Nifty, Interest Rates.

**Unit 7: Capital Markets:** Functions of Capital Market, Players in Capital Market, Role of SEBI in Capital Market, Investment Instruments in Capital Market, Modes of Raising Finance in Capital Market.

**Unit 8: Money Markets:** Functions of Money Market, Role of RBI in Money Market, Players in Money Market, and Instruments Used in Money Market.

**Unit 9: Merchant Banking:** Evolution of Merchant Banking, Role of Merchant Banker in Capital Market, SEBI Guidelines Regarding Merchant Banker.

**Unit 10: Mutual Funds:** The Evolution of Mutual Funds, The Concept of Mutual Fund, Types of Mutual Fund Schemes, Net Asset Value, Mutual Funds Functioning in India.

**Unit 11: Trading in Derivatives:** Intra-day Trading, Trading in Futures, Trading in Options, Risk in Derivatives Trading.

**Unit 12: Credit Rating:** Need for Credit Rating, Parameters of Credit Rating, Credit Rating Agencies, Credit Rating Symbols, Country Risk Rating.

## Course Outcome:

On successful completion of the course the learner will be able to:

| CO# | Cognitive Abilities | Outcomes |
|---|---|---|
| CO306.1 | Remember | Learn the tools for financial analysis. |
| CO306.2 | Understand | Enhance comparative analysis of Indian GAAP and the IFRS |
| CO306.3 | Analyze | Analyse Compare accounting aspects with financial markets |
| CO306.4 | Apply | Learn Indian Accounting Standards to implement them in corporate life. |

## Reference Books:

1. Financial ACCT with course mate-Godwin/Aderman/Sanyal-Cengage Learning
2. Financial Management by Jonathan Berk, Peter DeMarzo, and Ashok Thampy
3. Financial Management by Khan and Jain (TATA McGraw-Hill)
4. Financial Management by I.M. Pandey (Vikas Publication)
5. Financial Management Principle and Practices by S. Sudarsana Reddy
6. Financial Management by Prasanna Chandra, TMH, 7th Edition

| Semester | 4 | Course Credits | 4 | Specialization | FinTech |
|---|---|---|---|---|---|
| Course Code | OMBFT402 | | | Type | Specialization Course |
| Course Title | Cyber Laws and Hacking | | | | |

## Course Description:

All the necessary documents, information, and data are stored in a computer these days which shall be protected with utmost care. There is a lot of demand for cybersecurity and ethical hacking professionals to keep all the sensitive information protected from the hackers and develop new computers protecting the system. During the program, ethical hackers are taught how to find loopholes in the security system and to report these threats to their owners, and provide necessary solutions to protect the data and networks. To pursue ethical hacking certification, candidates need to take up the certified ethical hacking examination. Ethical hackers shall have good technical and analytical skills with in-depth knowledge of various computer software and programs.

## Course Objectives:

1) To Understand the basics of Ethical hacking and Cyber Laws
2) Exhibit knowledge to secure corrupted systems, protect personal data, and secure computer networks in an organization.
3) Practice with an expertise in academics to design and implement security solutions.
4) Develop cyber security strategies and policies.
5) Understand principles of web security and to guarantee a secure network by monitoring and analyzing the nature of attacks through cyber/computer forensics software/tools and installation.

## Course Outline:

**Unit 1 – Ethical hacking:** Freeware Beware, Types of Hackers, why do Hackers hack? What is Cyber Crime? Types of Cyber Crimes, what is Hack Value? What is Ethical Hacking? Legality of Ethical Hacking, Potential security threats to our system – Physical & Non - Physical threats, Skills required to be an Ethical Hacker, Tools required for Ethical Hacking.

**Unit 2 – Setting up your cyber security lab:** Setting Up and Creating Your Own Virtual Machine Lab for Penetration Testing (Using VMware's Workstation).

**Unit 3 – Open-source intelligence and information gathering:** Looking up Public and Private IP Addresses, Google Hacking Database and Google Dorks, Using Shodan – The Search Engine for Hackers,

Active Information Gathering, Email Tracking, and Spoofing, Being Anonymous, Vulnerability Assessment Tools (VAS)

**Unit 4 – Hacking and cracking windows & mobile platforms:** Windows Password and Operating System Hacking, HACKING & CRACKING, WINDOWS & MOBILE PLATFORMS, Android Mobile Phone Hacking and Tracking

**Unit 5 – Phishing:** Using Spear Phishing, Fake FB and IG Profiles, Phishing, Phishing Detection, Case studies of Social Media Frauds and Cyber Crimes.

**Unit 6 – Viruses and malware & WIFI hacking:** Batch File Viruses, RATs (Remote Access Trojans), Virus, Worms, VIRUSES AND MALWARE & WIFI HACKING, Wifi Hacking, Using Airmon-ng with Wordlist Method, Using Wifi Cracker Tools - Fern, Wifi Cloning (Evil-Twin) A ack and Rogue AP, Wireless Security - Restricting Wifi Access

**Unit 7 – Cyber security fundamentals- concepts & problems:** Need of Cyber Security, The CIA Triad, Risk Governance, and Risk Management, Understanding Privacy, Anonymity and Pseudonymity, CYBER SECURITY, FUNDAMENTALS – CONCEPTS & PROBLEMS, The Threat and Vulnerability Landscape, Asset Selection, Understanding Hack Value, Threat Modelling and Risk Assessment, The Zero Trust Model, Top 3 Security Measures for Online Security, Understanding Hackers, Crackers, Viruses, Malware and Rootkits, Darknets, Dark Markets and Exploit Kits, Cyber Threat Intelligence, Hash functions, Digital Certificates, HTTPS, End-to-End Encryption, Steganography, Concluding remarks.

**Unit 8 – Setting up the cyber lab:** Using VMware, Virtual Box, SETTING UP THE, CYBER LAB, Kali Linux

**Unit 9 – Operating system, security & privacy:** Security Features and Functionality, Security Bugs and Vulnerabilities, Windows 10 Cortona, Privacy Seing, Wifi Sense, Windows 7, 8, 8.1 – Privacy and Tracking, Mac – Privacy and Tracking, Linux and Unix OS, Debian and Arch, Qubes OS, Subgraph OS, Trisquel OS, Tails and Whonix OS, Mobile OS with Security like LineageOS, Sailfish, Importance of Patching, Windows 7, 8, 8.1, 10 Auto Updates and Patching, Linux Debian Patching, Mac Patching, Defence Against Social Engineering Attacks, Information Disclosure and Identity Strategies for Social Media, Identity Verification and Registration, Behavioural Security Controls against Phishing, Spam, Scam and Cons, Security Domains, Physical and Hardware Isolation, Virtual Machine Hardening, Whonix OS.

**Unit 10 – Routers-Port & Vulnerability scanning:** The Home Router, Using Shodan and Nmap, Internal Vulnerability Scanning – MBSA, NMAP, Fing & OpenVAS.