SANDIP FOUNDATION'S
SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE
MAHIRAVANI, TRIMBAK ROAD, TAL & DIST: NASHIK-422213, MAHARASHTRA,INDIA
Master of Business Administration (MBA)

# CURRICULUM STRUCTURE

# FOR

# TWO YEARS

# MASTER OF BUSINESS ADMINISTRATION

# IN

# FINTECH MANAGEMENT

# (FTM MBA)

# PROGRAM

(Sem –I To Sem – IV)

# WITH PROVISIONS

# OF

# EXIT OPTION PROGRAM

## Abbreviations

| | | | |
|---|---|---|---|
| **CIA** | Continuous Internal Assessment | **AEC** | Ability Enhancement Course |
| **L** | Theory Lecture | **BS** | Basic Science |
| **T** | Tutorial | **ES** | Engg. Science |
| **P** | Practical | **CEP** | Community Engagement Project |
| **TC** | Total Credits | **EC** | Exit Course |
| **CP** | Credits for Practical | **HSSM** | Humanities, Social Science and Management |
| **CT** | Credits for Theory | **IKS** | Indian Knowledge System |
| **IC** | Institute Core | **VSEC** | Vocational and Skill Enhancement Course |
| **IE** | Institute Elective | **MD** | Multidisciplinary Minor |
| **OE** | Open Elective | **LLC** | Liberal Learning Course |
| **PC** | Programme Core | **VEC** | Value Education Course |
| **PE** | Programme Elective | **ELC** | Experiential Learning Course |
| **VAC** | Value Added Course | a | Oral/ Presentation Examination |
| **HM** | Honors / Minor Program Course | b | Practical Examination |
| **SDC** | Skill Development Course | | |
| **EEC** | Employability Enhancement Course | | |

| **Formative Assessment for Theory Course** *(Scaled to allotted marks)* | | |
|---|---|---|
| **CIA** | **Weightage** | **Description** |
| CIA 1 | 20% | Home Assignment |
| CIA 2 | 40% | Mid-Term Exam (MTE) |
| CIA 3 | 20% | Research Based Activity/Quizzes/Case Studies/Poster/ GD |
| CIA 4 | 20% | Topic Based Presentation /Extempore |
| **TOTAL** | **100%** | |

SANDIP FOUNDATION

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**SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE**

(An Autonomous Institute Permanently Affiliated to Savitribai Phule Pune University, Pune)
MAHIRAVANI, TRIMBAK ROAD, TAL & DIST: NASHIK-422213, MAHARASHTRA,INDIA

## Semester – I

| Sr. No. | Course Type | Course Code | Course Name | Teaching Scheme (Hrs./Week) | | | | Examination Scheme | | | | Total Marks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | C | Formative Assessment CIA | | Summative Assessment ESE | | |
| | | | | | | | | Course | Lab | Course | Lab | |
| 1 | IC (GC) | 2316501 | Accounting for Managers | **3** | **-** | **--** | **3** | **50** | **--** | **50** | **--** | **100** |
| 2 | IC (GC) | 2316502 | Economics for Business Decision | **3** | **-** | **--** | **3** | **50** | **--** | **50** | **--** | **100** |
| 3 | IC (GC) | 2316503 | Business Law | **3** | **-** | **--** | **3** | **50** | **--** | **50** | **--** | **100** |
| 4 | IC (GC) | 2316504 | Research Methodology | **3** | **--** | **-** | **3** | **25** | **--** | **50** | **-** | **75** |
| 5 | IC (GC) | 2316505 | Organization Behaviour | **3** | **-** | **--** | **3** | **50** | **--** | **50** | **--** | **100** |
| 6 | IC (GC) | 2316506 | Marketing Basics | **3** | **--** | **-** | **3** | **50** | **--** | **50** | **--** | **100** |
| 7 | IE Common | 2316507 A to C | Institute Elective-1 | **1** | **1** | **--** | **2** | **25** | | **50** | **--** | **75** |
| 8 | IE Common | 2316508 A to C | Institute Elective-2 | **1** | **1** | **--** | **2** | **25** | **--** | **50** | **--** | **75** |
| **TOTAL** | | | | **20** | **2** | **--** | **22** | **325** | **00** | **400** | **00** | **725** |

**Institute Electives:**

**(Elective-1)**

1. Principles and Practices of Management (2316507A)
2. Business Communication for Managers (2316507B)
3. Leadership Development (2316507C)

**(Elective-2)**

1. Selling and Negotiation Skills (2316508A)
2. Entrepreneurship Development (2316508B)
3. Mathematics & Statistics for Business (2316508C)

| **SEM I** | **2316501** | **Accounting for Managers** | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Define and describe the fundamental concepts related to Management Accounting, including its role and importance in decision-making.
2. Elaborate on the theoretical foundations of Management Accounting, discussing the evolution and various approaches in the field.
3. Utilize accounting information to make managerial decisions concerning pricing, product mix, and cost control.
4. Identify and evaluate key elements in financial statements and cost data to make informed managerial choices.
5. Interpret financial statements to understand the financial health and performance of the organization.
6. Create various budgets, such as operating budgets, capital budgets, and cash budgets, to aid in planning and control.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Describe the concepts related to Management Accounting, Financial Statements, Cost Accounting, Marginal Costing, Budgetary Control and Standard Costing

**CO2:** Explain in detail, all the theoretical concepts mentioned in the syllabus

**CO3:** Perform all the necessary calculations through numerical problems

**CO4:** Analyse the situation and decide the key elements involved in the situation.

**CO5:** Evaluate the financial impact of the decision

**CO6:** Create the Financial Statement, Cost Sheet and Budgets

| **Unit 1: Introduction** **6 hrs** | **CO** |
|---|---|
| Nature, Scope of Management Accounting, Difference between Financial Accounting, Cost Accounting and Management Accounting | CO1 |
| Need ,uses, concepts, terms and conventions of accounting , Generally Accepted Accounting Principles (GAAP) | |
| **Unit 2: Financial Accounting and Statements:** **8 hrs** | CO2 |
| Fundamental accounting journal, ledger and trial balance. Meaning, importance and objectives of Financial Statements | |
| Preparation of final accounts of sole proprietary firm. | |
| **Unit 3: Basics of Cost Accounting:** **8 hrs** | CO3 |
| Introduction to functions of two and three variables, Partial Derivatives, Euler's Theorem on Homogeneous functions, Partial derivative of composite function. | |
| **Unit 4: Techniques for Decision Making:** **6 hrs** | CO4 |
| Concept of Marginal Costing, Differential costing and absorption costing, Advantages and limitations of marginal costing | |
| Contribution, P/V ratio, Break-even point (BEP),Cost-volume profit(CVP)Analysis, Business Decisions like Product Mix Decisions, Make or Buy (Outsourcing) Decisions, Accept or Reject Special Order Decisions, Shutting Down Decisions | |
| **Unit 5: Techniques for Controlling :** **7 hrs** | CO5 & CO6 |
| Budgetary Control : Concept of Budget and Budgetary Control ,importance and advantages and disadvantages, Zero based budgeting, functional budgets | |
| **Unit 6 :Standard Costing** **7 hrs** | |
| : Meaning, Importance, advantages and disadvantages, cost variance analysis, Material Variances and Labor Variances | |

## Text Books

1. Management Accounting, Khan and Jain, Tata McGraw Hill
2. Fundamentals of Management Accounting, H. V.Jhamb
3. Managerial Accounting, Dr. Mahesh Abale and Dr. Shriprakash Soni
4. Management Accounting, Dr. Mahesh Kulkarni
5. Accounting for Management, Jawarhar Lal

## Reference books

1. Management Accounting, Mr. Anthony Atkinson, Robert Kaplan, Pearson
2. Management Accounting, Ravi Kishore
3. Accounting for Managers, Dearden and Bhattacharya
4. Financial Accounting for Management, Shankarnarayanan Ramanath, CENGAGE Learning
5. Financial Cost and Management Accounting, P.Periasamy

| SEM I | 2316502 | Economics for Business Decision | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To Understand the basic concepts and issues in business economics and their application in business decisions.
2. To develop economic way of thinking in dealing with practical business problems and challenges
3. To *apply micro economic concepts and techniques in evaluating business decisions taken by* firms.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Define the Basic terms in Economics

**CO2:** Explain the fundamental ideas of economics from the perspective of management.

**CO3:** Recognize the numerous problems in an economics environment and emphasize the importance of each from the standpoint of corporate decision-making.

**CO4:** Examine how different aspects of microeconomics are related from the perspective of consumers, firms, industries, markets, competitors, and business cycles.

**CO5:** Evaluate critical thinking using microeconomics principles in order to make wise business decisions.

**CO6:** Explain how customers and businesses within an industry will react to a company's economic decisions and how those reactions might be incorporated into future judgments

| **Unit 1: Basic Principles in Economics** **6 hrs** | **CO** |
|---|---|
| **Basic Principles in Economics:** Meaning and scope of Business Economics, Twin principles of scarcity and efficiency, Circular Flow of Activity, Microeconomics, Macroeconomics, Scope of Managerial Economics, Managerial Economics and decision-making, Concept of Firm, Profit maximization & wealth Maximization Principle, Accounting & Economic Costs & Profits | CO1 |
| **Unit 2: Utility & Demand Analysis** **7 hrs** | |
| **Demand & Utility Analysis & Demand Forecasting:** Demand - Concept<br><br>of Demand, Types of Demand, Determinants of Demand, Law of Demand, Elasticity of Demand, Exceptions to Law of Demand. ,Uses of the concept of elasticity., Utility – Meaning, Utility analysis, Measurement of utility, Law of diminishing, marginal utility, Indifference curve, Consumer's equilibrium - Budget line and Consumer surplus, Methods of Demand Forecasting for Existing & New Product | CO2 |
| **Unit 3: Supply & Market Equilibrium** **8 hrs** | |
| **Supply & Market Equilibrium:** Introduction, Meaning of Supply and Law of Supply, Exceptions to the Law of Supply, Changes or Shifts in Supply. Elasticity of supply, Factors Determining Elasticity of Supply, Practical Importance, Market Equilibrium and Changes in Market Equilibrium. Production Analysis: Introduction, Meaning of Production and Production Function, Cost of Production. Cost Analysis: Private costs and Social Costs, Accounting Costs and Economic costs, Short run and Long Run costs, Economies of scale, Cost-Output Relationship - Cost Function, Cost- Output Relationships in the Short Run, and Cost-Output Relationships in the Long Run.. | CO3 |
| **Unit 4: Market structure analysis** **8 hrs** | |
| **Market structure analysis.** Introduction, Revenue: Meaning and Types, Relationship between Revenues and Price Elasticity of Demand, Pricing Policies, Objectives of Pricing Policies, Cost plus pricing. Marginal cost pricing. Cyclical pricing. Penetration Pricing. Price Leadership, Price Skimming. Transfer pricing. Price Determination under Perfect Competition. | CO4 |
| **Unit 5: Pricing Policies** **7 hrs** | |
| Introduction, Market and Market Structure, Perfect Competition, Price- Output Determination under Perfect Competition, Short-run Industry Equilibrium under Perfect Competition, Short run ,Firm Equilibrium under Perfect Competition, Long-run Industry Equilibrium under Perfect Competition, Long-run Firm Equilibrium under Perfect Competition. Pricing Under Imperfect Competition- Introduction, Monopoly, Price Discrimination under Monopoly, Bilateral Monopoly, Monopolistic Competition, Oligopoly, Collusive Oligopoly and Price Leadership, Pricing Power, Duopoly, Industry Analysis, Need for Government Intervention in Markets, Preventions and Control of Monopolies. | CO5 |
| **Unit 6 : Imperfect Competition** **6 hrs** | |
| Imperfect Competition- Introduction, Monopoly, Price Discrimination under Monopoly, Bilateral | CO6 |

| | |
|---|---|
| Monopoly, Monopolistic Competition, Oligopoly, Collusive Oligopoly and Price Leadership, Pricing Power, Duopoly, Industry Analysis, Need for Government Intervention in Markets, Preventions and Control of Monopolies. | |

**Text Books**

1. Managerial Economics, D. Salvatore, McGraw Hill, New Delhi.
2. Managerial Economics, G.S. Gupta, T M H, New Delhi.
3. Managerial Economics, Peterson, Lewis, Sudhir Jain, Pearson, Prentice Hall
4. Managerial Economics, Mote, Paul and Gupta, T M H, New Delhi.
5. Managerial Economics, Pearson and Lewis, Prentice Hall, New Delhi

**Reference Books**

1. Managerial Economics, Joel Dean, Prentice Hall, USA.
2. Managerial Economics, Homas and Maurice, Tata McGraw Hill
3. Managerial Economics, D.M.Mithani
4. Managerial Economics, Varshney and Maheshwari, Sultan Chand and Sons, New Delhi.
5. Managerial Economics by H L Ahuja, S Chand & Co. New Delhi.
6. Managerial Economics - Analysis, Problems and Cases, P.L. Mehta, Sultan Chand Sons, New Delhi

| | | | |
|---|---|---|---|
| **SEM I** | **2316503** | **Business Law** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Familiarize students with key business-related Acts in the Indian economy.
2. Relate legal provisions to relevant business aspects and situations.
3. Develop critical thinking through legal judgment exercises
4. Outline basic case laws of each Act from a legal and managerial perspective

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Know Legal Aspects of Business with respect to Indian economy.

**CO2:** Relate various legal provisions to relevant business aspects and situations

**CO3:** Illustrate the use of the Acts in common business situations.

**CO4:** To enhance the ability of the students to manage the business effectively.

**CO5:** Develop critical thinking by making judgments related to use of various provisions of the Acts in business situations

**CO6:** Outline the various facets of basic case laws of each Act from a legal and managerial perspective

| **Unit 1: Indian Contract Act, 1872:** **8 hrs** | **CO** |
|---|---|
| Contract –meaning, characteristics and kinds, Essentials of valid contract -Offer and acceptance, consideration, contractual capacity, free consent, legality of objects. Breach of Contract- meaning & remedies Void agreements.<br>Discharge of contract –modes of discharge including breach and its remedies. Contingent contracts, Quasi – contracts, Contract of Indemnity and Guarantee Contract of Agency , Contract of Bailment Act. | CO1 |
| **Unit 2: The Sale of Goods Act, 1930** **8 hrs** | CO2 |
| Contract of sale, meaning and difference between sale and agreement to sell. Conditions and warranties, Transfer of ownership in goods including sale by non- owners, Performance of contract of sale, Unpaid seller –meaning and rights of an unpaid seller against the goods and the buyer. Auction Sale | |
| **Unit 3: Negotiable Instrument Act, 1881** **7 hrs** | CO3 |
| Negotiable Instrument – meaning- characteristics- types- parties – holder & holder in due course. Negotiation and types of endorsement. Dishonour of negotiable instrument – noting & protesting Liability of parties on Negotiable Instrument | |
| **Unit 4: Companies Act The Companies (Amendment) Act, 2015** **6 hrs** | CO4 |
| Definition & characteristics of a company. Company distinguished from partnership. Kinds of Companies. Provisions relating to incorporation & Memorandum of Association Articles of Association, Prospectus. Management & administration. Meetings & proceedings Directors, Boards powers & restrictions thereon. | |
| **Unit 5: The Consumer Protection Act, 2019** **6 hrs** | CO5, CO6 |
| Unfair & Restrictive Trade Practices, Dispute Redressal Forums – District, State & National Forum, Composition, Jurisdiction, Powers, Appellate Authority. | |
| **Unit 6: Introduction to IPR Laws** **6 hrs.** | |
| a) The Copy Right Act, 1957<br>b) The Patents Act, 1970<br>c) The Trade Marks Act, 1999. | |

**Text Books**

1. Business Legislations for Management, M.C. Kuchhal
2. Elements of Mercantile Law, N.D.Kapoor
3. Business and Corporate Laws, Dr. P.C. Tulsian
4. Business Laws, S.S. Gulshan
5. Elements of merchantile law- N.D. Kapoor

**Reference Books**

1. Pathak, Legal Aspects Of Business, Tata Mcgraw- Hill Publishing Company Limited, New
2. Delhi, 2010. Keith-davis & William Frederick, Business And Society, McgrawHill, Tokyo
3. M.M. Sulphey & Az-Har Basheer, LAWS FOR BUSINESS, Phi Learning Pvt. Ltd. Delhi, 2011
4. Maheswari & Maheswari, Mercantile Law, Himalaya Publishing House. Mumbai
5. Legal Aspects of Business, Akhileshwar Pathak
6. Legal Aspects of Business, Ravinder Kumar

| SEM I | 2316504 | Research Methodology | |
|---|---|---|---|
| Teaching Scheme: | Credits | Examination Scheme | |
| Theory: 3 hrs/week | Th:03 | Theory | CIA: 25 |
| | | | End-Sem:50 |
| | | Pract: | -- |
| | | Oral: | -- |
| | | Termwork | -- |

**Course Objectives: The student should be able to**

1. Students should be able to convert theoretical knowledge into practical research skills by conducting independent research projects.
2. Develop a comprehensive understanding of the fundamental concepts of research in business, including the reasons for studying business research.
3. Define key research terms and concepts, such as research design, hypothesis, data analysis techniques, sampling methods, and ethical considerations in research.
4. Acquire in-depth knowledge of different research designs, both qualitative and quantitative, and be able to differentiate between various types of research approaches and their applications in different scenarios.
5. Compare and contrast different research methods, such as exploratory research and conclusive research.
6. Acquire knowledge about various data collection techniques, including questionnaire construction, personal interviews, and online questionnaire tools.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Define various concepts & terms associated with research

**CO2:** Explain the terms and concepts used in all aspects of research.

**CO3:** Make Use OF principles of research to SOLVE contemporary research problems.

**CO4**: Examine the various facets of a research problem and illustrate the relevant aspects of the research process from a data driven decision perspective.

**CO5**: Judge the suitability of alternative research designs, sampling designs, data collection instruments and data analysis options in the context of a given real-life business research problem from a data driven decision perspective.

**CO6:** Formulate alternative research designs, sampling designs, data collection instruments, testable hypotheses, data analysis strategies and research reports to address real-life business research problems.

| **Unit 1: Research** **6Hrs** | **CO** |
|---|---|
| Definition, reasons for studying business research, Characteristics of research, what is good research - Research application in functional areas of business -Questions in Research: Formulation of Research Problem – Management Question – Research Question – Investigation Question -Steps in research Process - Ethics in Research, Concept of Plagiarism and Prevention | CO1 |
| **Unit 2: Research Design** **8 Hrs** | CO2 |
| Concept and Role of research design - Type of research approaches- qualitative research and quantitative research, Difference between Qualitative research and quantitative research - Types of Research design- Exploratory research and<br><br>Conclusive research: descriptive and causal research. Exploratory research techniques: Depth interview, Experience survey, Focus group, observations.<br><br>Descriptive Research Design- concept, use. Cross sectional & longitudinal research. Experimental Design- concept of cause, causal relationship, concept of dependent & independent variable, extraneous variable, treatment & control group | |
| **Unit 3 Hypothesis** **8 Hrs** | CO3 |
| Definition, research Hypothesis, Statistical hypothesis, Null hypothesis, Alternative Hypothesis, Directional Hypothesis, Non-directional hypothesis. Qualities of a good Hypothesis, Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing - Logic & Importance<br><br>**Data & Measurement**: Meaning of data, Need for data. Secondary Data: Definition, Sources, Characteristics, Advantages and disadvantages over primary data, Quality of secondary data - Sufficiency, adequacy, reliability and consistency. Primary Data: Definition, Advantages and disadvantages over secondary data.<br><br>Questionnaire: Questionnaire Construction - Personal Interviews, Telephonic survey Interviewing, Online questionnaire tools | |
| **Unit 4: Basics and Types of Sampling** 6 **Hrs** | CO4 |
| Basic concept of Sampling: universe/population, Sample, sampling frame, sampling element & Characteristics of a good sample. Probability sampling: different types of sampling. 2. non-probability sample- different types of non-probability sampling, Sampling Errors, non-sampling errors, methods to reduce errors, sample size Considerations | |
| **Unit 5: Data Analysis & Report Writing** **7 Hrs** | CO5 |

| | |
|---|---|
| Data Analysis: Cleaning of Data, Editing, Coding, Tabular representation of data, frequency tables, Univariate analysis - Interpretation of Mean, Median Mode; Standard deviation, Coefficient of Variation. | CO6 |
| **Unit 6 : Graphical Representation of Data in Methodology. 7 Hrs** | |
| Graphical Representation of Data: Appropriate Usage of Bar charts, Pie charts, Line charts, Histograms. Bivariate Analysis: Cross tabulations, Bivariate Correlation Analysis - meaning & types of correlation, Karl Person's coefficient of correlation and spearman's rank correlation. Chi-square test including testing hypothesis of association, association of attributes. Linear Regression Analysis: Meaning of regression, Purpose and use, Linear regression; Interpretation of regression co-efficient, Applications in business scenarios. Test of Significance: Small sample tests: t (Mean, proportion) and F tests, Z test. Non-parametric tests: Binomial test of proportion, Randomness test. Analysis of Variance: One way and two-way Classifications. Research Reports: Structure of Research report, Report writing and Presentation | CO5<br>CO6 |

**Text Books:**

1. Business Research Methods, Donald Cooper & Pamela Schindler, TMGH.
2. Business Research Methods, Alan Bryman & Emma Bell, Oxford University Press
3. Research Methods for Social Work, Allen, Earl R. Babbie, Cengage
4. Research Methods in Business Studies: A Practical Guide, Pervez Ghauri, Dr Kjell Gronhaug, FT Prentice Hall

**Reference Books / Reading:**

1. Business Research Methods, William G. Zikmund, Barry J. Babin, Jon C. Carr, Mitch Griffin,
2. Cengage Learning
3. Approaches to social research, Royce Singleton, Bruce C. Straits, Margaret Miller Straits, Oxford University Press
4. Research Methods: The Basics, Nicholas S. R. Walliman, Nicholas Walliman, Routledge
5. Research Methodology In Management, Dr.V.P.Michael

| | | | |
|---|---|---|---|
| **SEM I** | **2316505** | **Organization Behaviour** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

## Course Objectives: The student should be able to

1. To gain knowledge of human behavior in the workplace from an individual, group, and organizational perspective.
2. To obtain frameworks and tools to effectively analyze and approach various Organizational situations
3. To reflect upon your own beliefs, assumptions, and behaviors with respect to how individuals, groups, and organizations act in order to expand your options of approaches and increase your own effectiveness.

## Course Outcomes:

**On completion of the course, learner will be able to–**

**CO1:** Describe the Levels of Analysis in OB and its application in Business
**CO2:** Explain how people behave under different conditions and understand why people behave as they do
**CO3:** Apply various theories and models of organizational behavior in the workplace
**CO4:** Compare between the various theories of motivation and their application in organizations.
**CO5:** Evaluate the potential effects of important developments in the external environment on organizational behavior.
**CO6:** Develop strategies to creatively and innovatively engage in solving organizational challenges.

| **Unit 1: Introduction** **6 hrs** | **CO** |
|---|---|
| Introduction - Definition of OB , Focus and Purpose of OB , Nature of OB , Scope of OB ,Development of ,OB , Organisational Behavioural Models, Understanding Organizational behavior: Role of a Manager, Levels of analysis within OB - individual, group and organization; challenges and opportunities for OB; relationship of OB with other fields, Application of OB in Business. | CO1 |
| **Unit 2: Individual behavior** **7 hrs** | CO2 |
| Individual behavior; Attitude, Attitude and Behavior, Attitude required at Workplace – Job Satisfaction, Job Involvement, Commitment, Employee Engagement, Emotions, Sources of Emotions, Emotional Intelligence, EQ vs IQ Introduction ,Determinants of Personality , Theories of Personality , Individual Difference , Matching Personality and Jobs , Personality and Organizational Behaviour Values: Importance of Values, learning theories;<br><br>Perception: factors influencing Perception; Personality, Attitudes, Job satisfaction and Values. | |
| **Unit 3: Learning and Attitude** **8 hrs** | CO3 |
| Introduction Learning: , Learning Process , Theories of Learning , Attitude-Characteristics and Components ,Attitude and Behaviour , Attitude Formation , Measurement of Attitude,Attitude and Productivity | |
| **Unit 4:Motivation** **8 hrs** | CO4 |
| Organizational Culture & Climate; Organizational Conflicts Type, Causes and Management;; Knowledge Management; Power & Politics; Negotiation, Motivation- introduction , Definition , Classification of Motive , Nature of Motivation , Motivation Process , Theories of Motivation | |
| **Unit 5: Leadership and Communication** **7 hrs** | CO5 |
| Importance of Leadership , Functions , Leader vs. Manager , Leadership Styles ,Leadership Theories , Communication: Meaning , Importance of Communication ,Communication Process , Barriers to Communication . Steps for Improving CommunicationI Organizational Change: Forces for change; Resistance to change; Managing change; Stress; Concept, Sources of Stress, Consequences, Management of Stress. | |
| **Unit 6: GROUPS IN ORGANISATION** **6 hrs** | |
| GROUPS IN ORGANISATION: Group: Meaning, nature, functions & development, Foundations of Group Behavior, Defining and Classifying Groups, Stages of Group Development, Group Decision Making, Understanding Work Teams, Types of Teams, Creating Effective Teams. | CO6 |

**Text books**

1. Robbins, S. P., & Judge, T. (2021). Organizational behavior (18th ed.). Boston: Pearson
2. Newstrom J. W., & Davis, K. (2011). Human behavior at work (12th ed.). Tata McGraw Hill
3. Nelson, D , Quick, J.C., & Khandelwal, P., (2011). ORGB . Cengage Learning.
4. Stanley C. Ross(2021), Organizational Behavior Today (1st Edition), Routledge
5. Michael A. Hitt, Adrienne Colella, C. Chet Miller (2010), Organizational Behavior (3rd Edition), Wiley

## Reference books

1. Pareek. U. (2010). Understanding Organizational Behavior (2nd ed.). Oxford University Press
2. Schermerhorn, J. R., Osborn, R.N., Hunt, M.U.J (2016). Organizational Behavior (12th ed.). Wiley.

3. Jennifer M. George, Gareth R. Jones (2011), Understanding and Managing Organizational Behavior, 6th Edition, Prentice Hall
4. Jason A. Colquitt; Jeffery Lepine; Michael Wesson (2018), Organizational Behavior: Improving Performance and Commitment in the Workplace (6th Edition), McGraw-Hill Education
5. Ricky W. Griffin, Jean M. Phillips, Stanley M. Gully

| | | | |
|---|---|---|---|
| **SEM I** | **2316506** | **Marketing Basics** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Understand the role of marketing in business and its importance for creating and maintaining customer relationships.
2. Identify the basic concepts and principles of marketing including the marketing mix (product, price, place, promotion) and the customer value proposition.
3. Learn about market segmentation, targeting, and positioning strategies to effectively reach and appeal to different customer segments.
4. Develop skills in conducting marketing research, analyzing market data, and identifying consumer needs and preferences.
5. Gain knowledge of marketing communication strategies such as advertising, public relations, sales promotion, and personal selling to effectively communicate with customers.
6. Learn about the importance of branding and how to develop a strong brand identity that resonates with customers.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Remember and reproduce concepts, principles, frameworks, and terminologies related to marketing

**CO2:** Demonstrate the relevance of marketing management principles and frameworks to a new or current business across a wide variety of sectors

**CO3:** Apply marketing principles and theories to the demands of marketing function and practice in contemporary real-world scenarios

**CO4:** Examine and compile a list of marketing issues related to segmentation, targeting, and positioning, marketing forces, consumer purchasing patterns, the marketing mix, and the product life cycle in the context of real-world marketing offerings (commodities, goods, services, and e-products/e-services)

**CO5:** Explain how segmentation, targeting, and positioning are related to the marketing environment, consumer buying habits, marketing mix, and product life cycle using examples from real-world situations.

**CO6:** Discuss several strategies for segmenting, targeting, and positioning, as well as the marketing environment, consumer buying patterns, the marketing mix, and the product life cycle in the

context of real-world marketing offerings (commodities, goods, services, and e-products/e-services).

| **Unit 1: Introduction to Marketing:** **6 Hrs** | **CO** |
|---|---|
| Definition & Functions of Marketing, Core concepts of marketing, Concepts of Markets, Company orientation towards market place, Functions of Marketing Manager Concept of Marketing Myopia. Marketing Process, Understanding Marketing as Creating, Communicating, and Delivering Value | CO1 |
| **Unit 2: Consumer Behavior:** **8 Hrs** | CO2 |
| Meaning & importance of consumer behavior, Consumer Buyer Behavior: Cultural, Social, personal & Psychological factors, Complex, Dissonance-reducing, Habitual & Variety-seeking buying behavior, Buyer decision process, Adoption process & rate of adoption in new products. Business Buyer Behavior: Business markets, Major types, Participants, Major influences, Business buying process & over the internet, Institutional & government markets | |
| **Unit 3: Marketing Environment:** **8 Hrs** | CO3 |
| Micro Environment, Macro Environment Need and Importance for analyzing the Marketing Environment, Analyzing the Political, Economic, Socio-cultural, Technical and Legal Environment, Demographics | |
| **Unit 4: Concept, Need & Benefits:** **6 Hrs** | CO4 |
| Geographic, Demographic, Psychographic, Behavioural bases of segmentation for consumer goods and services. Bases for segmentation for business markets. Levels of segmentation, Criteria for effective segmentation. Market Potential & Market Share. Target Market -Concept of Target Markets and criteria for selection. Segment Marketing, Niche & Local Marketing, Mass marketing, LongTail Marketing. Positioning - Concept of differentiation & positioning, Value Proposition & Unique Selling Proposition | |
| **Unit 5: Market Potential :** **7 Hrs** | |
| Market Potential & Market Share. Target Market -Concept of Target Markets and criteria for selection. Segment Marketing, Niche & Local Marketing, Mass marketing, LongTail Marketing. Positioning - Concept of differentiation & positioning, Value Proposition & Unique Selling Proposition | CO 5 |
| **Unit 6: Marketing Mix:** **7 Hrs** | CO6 |
| Origin & Concept of Marketing Mix, 7P's - Product, Price, Place, Promotion, People, Process, Physical evidence. Product Life Cycle: Concept & characteristics of Product Life Cycle (PLC), Relevance of PLC, Types of PLC and Strategies across stages of the PLC. | |

**Text Books:**

1. This is marketing Godin Seth
2. Marketing Management, Rajan Saxena, TMGH

**Reference Books / Reading:**

1. Marketing, Lamb Hair Sharma, Mc Daniel, Cengage Learning
2. Marketing Management, Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileshwar Jha, Pearson
3. Marketing Management- Text and Cases, Tapan K Panda, Excel Books Marketing Whitebook

| **SEM I** | **2316507A** | **Principles and Practices of Management** | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Comprehend the nature and characteristics of management, its scope, and various functional areas.
2. Recognize the importance of ethical values in managerial decision-making and actions.
3. Explore the concepts of authority, delegation, decentralization, and their impact on organizational structure.
4. Analyze the techniques of coordination in managing complex organizational tasks.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Understanding the Aim Is To Inculcate The Ability To Apply Multifunctional Approach To Organizational Objective.

**CO2:** Apply Process Based Thinking And Risk Based Thinking For Managing And Improving The Functioning Of An Organization

**CO3:** Examine The Inter-Relationships Between The Planning And Organising, Directing And Communicating, Controlling And Coordinating Etc.

**CO4:** Develop Skills For Corrective Action Management And Continual Improvement Project Management.

| **Unit 1:Introduction** **7hrs** | **CO** |
|---|---|
| Meaning, Evolution Of Management Thought, Pre-Scientific Management Era, Neo-Classical Management Era, Modern Management Era; Nature And Characteristics Of Management - Scope And Functional Areas Of Management; Management As A Science, Art Or Profession; Management And Administration; Difference Between management And Administration. Significance Of Values And Ethics In Management | CO1 |
| **Unit2:Planning And Organizing-** **7 hrs** | CO2 |
| Nature, Scope, Objective And Significance Of Planning, Elements And Steps Of Planning, Decision Making Organizing Principles, Span Of Control, Line And Staff Relationship, Authority, Delegation And Decentralization. Effective Organizing, Organizational Structures, Formal And Informal Organizations, Staffing. | |
| **Unit 3:Organizing,Staffing and Directing** **7 hrs** | CO3 & CO5 |
| Nature And Purpose Of Organization; Principles Of Organizing; Delegation Of Authority; Types Of Organization - Departmentalization, Committees; Centralization Vs Decentralization Of Authority And Responsibility, Span Of Control; Nature And Importance Of Staffing, Recruitment,Selection,Placement,Promotion,Separation,Performance Appraisal,Meaning And Nature Of Direction, Principles Of Direction; | |
| **Unit 4: Communicating, Controlling And Coordinating** **7hrs** | CO4 & CO6 |
| Communication - Meaning And Importance, Communication Process, Barriers To Communication, Steps To Overcome Communication Barriers, Types Of Communication; Motivation Theories – Maslow's Need Hierarchy Theory, Herzberg's Two Factor Theory. **Leadership** – Meaning, Formal And Informal Leadership, Characteristics Of Leadership; Leadership Styles – Autocratic Style, Democratic Style, Participative Style, Laissez Faire Leadership Styles, Transition Leadership, Charismatic Leadership Style,Elements Of Managerial Control, Control Systems, Management Control Techniques, Effective Control Systems. Coordination Concept, Importance, Principles And Techniques Of Coordination, Concept Of Managerial Effectiveness. | |

## Text Books books

1. Drucker, F. Peter - Management-Tasks, Responsibilities & Practices.
2. Koontz "O" Donnel Weihrich - Elements Of Management.
3. Koontz H, "O" Donnel C - Management-A Book Of Reading.

## Reference books

1. Management Principle And Practice- Dr.Noor Firdoos Jahan-Thakur Publication Pvt.Ltd
2. Terry And Franklin - Principles Of Management
3. Stoner - Principles Of Management

| | | | |
|---|---|---|---|
| **SEM I** | **2316507B** | **Business Communication for Managers** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

## Course Objectives: The student should be able to

1. To acquaint the students with fundamentals of communication and help them to transform their communication abilities.
2. To help the students to acquire some of the necessary skills to handle day-to-day managerial responsibilities, such as - making speeches, controlling one-to-one communication, enriching group activities and processes, giving effective presentations, writing letters, memos, minutes, reports and advertising, and maintaining one's poise in private and in public.
3. To build the students' confidence and to enhance competitiveness by projecting a positive image of themselves and of their future.
4. Effectively manage the team as team player.
5. Communicate effectively (Verbal and non-verbal)

## Course Outcomes:

**On completion of the course, learner will be able to–**

**CO1:** Recognize the various components of communication, the channels via which it occurs, and the obstacles to clear communication.

**CO2:** Express oneself clearly in both common and unique professional contacts in the real world

**CO3:** Demonstrate how to develop body language properly

**CO4:** Participate in business meetings, panel discussions, phone calls, simple interviews, and public speaking exercises

**CO5:** Analyze the benefits and drawbacks of actual recorded speech exchanges in a professional setting..

**CO6:** Use appropriate technology tools to create and deliver successful business presentations for typical business scenarios.

| **Unit 1: Introduction** **7 hrs** | **CO** |
|---|---|
| Concepts of Communications: Definition, Objectives of Communication, Characteristics of Communication, Process of Communication, Forms of communication, Roles of a Manager, Communication Roadblocks and Overcoming them, Overcoming Communication Barriers, Effectiveness in Managerial Communication, Role of Verbal & Non-verbal Symbols in communication : Forms of Non- verbal Communication, Interpreting Non-verbal messages, Tips for effective use of non-verbal Communication. | CO1 |
| **Unit 2: Listening & communication** **7 hrs** | CO2 |
| Listening: Definition, Anatomy of poor Listening, Features of a good Listener, Meaning of EL, Types of Listening skills, strategies, Barriers to effective Listening. Spoken Communication : Oral Presentation: Planning presentation, Delivering presentation, Developing & displaying visual aids, Handling questions from the audience , Telephone, Teleconferencing, Challenges and etiquette. | |
| **Unit 3: Group Discussion and Interviews** **7 hrs** | CO3 CO6 |
| Group Discussion & Interviews :Methodology of Group, Role Functions in Group Discussions, From of Group, Characteristics of Effective Groups, Group Decision –Making , Group Conflict, Types of Non-functional Behavior, Fundamental principles of Interviewing, Types of Interviewing Questions, Important Non-Verbal Aspects, Types of Interviews, Style of Interviewing. Mock Interviews, Introduction, Greetings and Art of Conversation, Dressing and Grooming, Norms of Business Dressing. | |
| **Unit 4:** Meetings **and Formal Communication** **7 hrs** | CO4 & CO5 |
| Meetings: Ways and Means of conducting meeting effectively, Planning a Meeting, Meeting Process, How to Lead Effective Meeting, Evaluating Meeting, Writing Agenda and Minutes of meetings , Web Conferencing Forms of Communication in Written mode: Written Business Communication, Basic Principles, Tips for effective writing, The Seven Cs of Letter writing, Planning steps for effective writing , Persuasive written messages , Writing Business Reports (Short & Long), Kinds of Business Letters, Tone of writing, inquiries, orders & replying to them, sales letters, Job application Letters, Writing Effective Memos, Format and Principles of writing Memos | |

## Text Books

1. Verbal and Non-Verbal Reasoning, Prakash, P, Macmillan India Ltd., New Delhi
2. Business Communication Today, Bovee C L et. al., Pearson Education
3. Business Communication, T N Chhabra, Bhanu Ranjan, Sun India
4. Business Communication, P.D. Chaturvedi, Pearson Education

## Reference Books

1. Dictionary of Common Errors, Turton, N.D and Heaton, J.B, Addision Wesley Longman Ltd.
2. Technical Communication, Anderson, P.V, Thomson Wadsworth, New Delhi
3. Communication for Business, Tayler Shinley, Pearson Education
4. The Oxford Guide to Writing and Speaking, John Seely, Oxford University Press, New Delhi
5. Communication Skills for Effective Management, Hargie et. al., Palgrave

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|---|---|---|---|
| **SEM I** | **2316507C** | **Leadership Development** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Developing effective leadership skills and abilities.
2. Understanding and implementing key leadership theories and models.
3. Enhancing communication and interpersonal skills.
4. Building and managing effective teams.
5. Developing problem-solving and decision-making skills.
6. Understanding the importance of ethical leadership.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Remembering: To provide a framework for the students to understand the importance of Leadership and team effectiveness in organizations

**CO2:** Understanding: To give students understanding of good Leadership Behaviors and gaining insight into their Patterns, Beliefs and Attitude

**CO3:** Applying: To give students hands on experience in Empowering, Motivating and Inspiring Others and Leading by Example

**CO4:** Analyzing: To analyses the effectiveness of leadership style in various organization

**CO5:** Evaluating: To evaluate the role of leadership in the development of an institution

**CO6:** Creating: Creating an frame work on developing an healthy environment in organization

| **Unit 1: Introduction To Leadership** **7 Hrs** | **CO** |
|---|---|
| Discusses various aspects of leadership and management as important domains of study. Multiple thought streams of management and related thought leaders are presented | CO1 |
| **Unit 2: Leadership Theories** **7 Hrs** | CO2 |
| Important theories of leadership that have had chronological evolution and recognition in management literature. | |
| **Unit 3: Leadership Processes** **7 Hrs** | CO3 & CO5 |
| Focusses on processes and methodologies for developing leaders in organisations, including through self-development | |
| **Unit 4: Leadership Structures and Transformational Leadership Models** **7 Hrs** | CO4 & CO6 |
| Discusses the importance of reinforcing as well as disrupting established product and service structures, and leveraging organizational structures to create new growth niches. Discusses unique aspects of transformational leadership models, with examples based on specific organizational and business contexts, presents additional transformational leadership models, with examples based on specific people development approaches | |

**Text Books:**

1. Leadership Development Activities, John Adair, 2nd Edition Jaico Publication
2. Leadership Games, Stephen S Kogan, Response Books
3. Case Studies on Leadership, Edited By Menaka Rao & Sanghamitra Bhattacharya, ICFAI Books
4. Innovative Leader, Paul Sloane, Kogan Page

**Reference Books / Reading:**

1. Mastering Leadership, 2nd Edition, Michael Williams, Viva Books
2. Positive Leadership, Mike Pegg, Management Books 2000
3. Cases in Leadership, W Glenn Rowe, Sage Publications
4. Introducing Leadership, David Pardey, Butterworth-Heinemann

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|---|---|---|---|
| **SEM I** | **2316508A** | **Selling and Negotiation Skills** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Explore the various types of selling situations, including new business, service selling, consumer indirect selling, industrial selling, franchise selling, and international selling.
2. Emphasize the significance of selling in driving revenue and growth for organizations.
3. Explore the Pyramid of Success, focusing on power, time, and information management during negotiations.
4. Discuss the art of persuasion and its application in selling to stakeholders such as dealers, suppliers, vendors, channel partners, superiors, subordinates, team-mates, and peers.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1: Understanding:** Explain The Theories And Concepts That Are Central To Personal Selling.

**CO2: Applying:**To Study Basic Theoretical Principles And Practical Steps In The Negotiating Process

**CO3:Analyzing:** Appraise The Importance Of In Business Negotiations And Managing Conflicts

**CO4: Evaluating:** Develop The Logical Thinking, Communication Skills And Other Prerequisite For Successful Business Negotiations And Handling Organizational Conflict.

| **Unit 1: Introduction** **7 hrs** | **CO** |
|---|---|
| Nature & Scope Of Selling And Negotiation, Objectives: Importance Of Selling. Role In The Context Of Organization – Growth And Survival , Types Of Selling : Differences In Selling Situations, New Business Versus Service Selling, Newton's Classification Of Sales Types, Arnold's And Mcmurry Classification Of Selling Types, Consumer Indirect Selling, Industrial Selling , Franchise Selling, International Selling | CO1 |
| **Unit 2: Negotiable Instrument Act,1881** **7 hrs** | CO2 |
| Introduction Meaning Of Negotiable Instrument, Features Of Negotiable Instruments, Promissory Note Bills Of Exchange, Bank Draft , Cheques, Acceptance, Classification Of Negotiable Instruments- Bearer Instruments, Order Instruments, Inland Instruments, Foreign Instruments, Demand Instruments Time Instrument, Ambiguous Instruments, Incomplete Instruments. | |
| **Unit 3: Introduction To Marketing & Selling Concepts & Traits Of A Successful Salesperson** **7 hrs** | CO3 |
| Marketing Concepts, Personality & Physical Characteristics, Enthusiasm, Confidence, Intelligence, Self-Worth, Knowledge- Product, Competition, Organization, Customer, Territory; Communication Skills, Persuasive Skills | |
| **Unit 4: Personal Skills Of Selling** **7 hrs** | CO4 |
| 4 C's Of Negotiation, The Opening - Need & Problem Identification – The Presentation & Demonstration - Dealing With Objections – Negotiations – Closing The Sale - Follow Up Negotiation Skills: Goal, Collaborative/Win –Win Not Compromise, Pyramidof Success: Power, Time, And Information. Opponent : Visceral Or Idea | |

**Text books**

1. Sales Management By Bill Donaldson, Palgrave Publications
2. The Negotiable Instruments Act,1881
3. Negotiations Selling By Sameer Kulkarni – Excel Book Undamentals Of Selling By Charles M. Futrell, Tata Mcgraw Hill 10th Edition 2
4. A B C' S Of Selling By Charles M. Futrell, Aitbs, New Delhi,
5. Managing Conflict & Negotiation By B. D. Singh – Excel Books
6. Negotiation Handbook By P. J. Cleary – Printice Hall Of India

**Reference books**

1. Selling & Sales Management By Geoffrey Lancaster & David Jobber, Macmillan India Ltd.
2. Negotiation: Communication For Diverse Settings By Michael L Spangle And Myra Isenhart, Sage South Asia Edition
3. The Sales Bible: The Ultimate Sales Resource By Jeffrey Gitomer, Wiley India
4. Negotiation & Selling By R. K. Srivastava – Excel Book
5. The Essentials Of Negotiation – Harvard Business School Press

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|---|---|---|---|
| **SEM I** | **2422508B** | **Entrepreneurship Development** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Understand the process of entrepreneurship and the role of entrepreneurs in creating and managing successful businesses.
2. Identify and evaluate potential business opportunities and develop a strong business plan.
3. Analyze the market and competition to determine the viability and potential of a new business venture.
4. Develop effective strategies for marketing, sales, and customer acquisition.
5. Understand the legal and regulatory aspects of starting and managing a business.
6. Develop financial projections and understand the financial management requirements of a new business.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Remembering: Recall the key concepts and theories related to entrepreneurship development

**CO2:** Understanding: Demonstrate a clear understanding of the different factors influencing entrepreneurship and the importance of entrepreneurship in economic development

**CO3:** Applying: Apply the knowledge and skills in identifying and evaluating entrepreneurial opportunities, developing a business plan, and managing a new venture

**CO4:** Analyzing: Analyze the challenges and risks associated with entrepreneurship, and develop strategies to mitigate them

**CO5:** Evaluating: Evaluate the performance and success of a new venture using relevant criteria and metrics, and propose improvements and adjustments as needed

**CO6:** Creating: Generate innovative ideas for new venture creation, develop creative solutions to entrepreneurial problems, and design and implement entrepreneurial strategies

| **Unit 1: Introduction to Entrepreneurship** **7 Hrs** | **CO** |
|---|---|
| Definition and concept of entrepreneurship, Importance and role of entrepreneurship in the economy, Characteristics and skills of successful entrepreneurs, Types of entrepreneurs (e.g. social, serial, lifestyle), Entrepreneurial mindset and attitudes, - Entrepreneurial process and stages of venture creation | CO1 |
| **Unit 2: Identifying and Evaluating Business Opportunities** **7 Hrs** | CO2 |
| Sources of business ideas, Methods for generating and screening business ideas, Assessing market potential and demand for new ventures, Identifying and analyzing industry trends and competitors, Evaluating the feasibility and viability of business opportunities - Techniques for conducting a SWOT analysis | |
| **Unit 3: Developing and Implementing Business Plans** **7 Hrs** | CO3 & CO6 |
| Components of a business plan (e.g. executive summary, market analysis, financial projections), Writing a compelling value proposition and positioning statement, Strategies for product development, pricing, and distribution, Developing an effective marketing and sales plan, Organizational structure and team building, - Financial management and funding options for new ventures | |
| **Unit 4: Managing and Growing Entrepreneurial Ventures** **7 Hrs** | CO4 & CO5 |
| Strategies for launching and growing a new venture, Building a strong brand and reputation, Effective leadership and decision-making in entrepreneurial ventures, Managing resources and operations, Strategies for managing and mitigating risk in entrepreneurship, Innovating and adapting to changes in the market, Scaling and expanding the business, Exit strategies and succession planning | |

**Text Books:**

1. "New Venture Creation: Entrepreneurship for the 21st Century" by Jeffry A. Timmons and Stephen Spinelli
2. "Entrepreneurship: Successfully Launching New Ventures" by Bruce R. Barringer and R. Duane Ireland
3. "Entrepreneurship: Starting and Operating a Small Business" by Steve Mariotti and Caroline Glackin
4. "Entrepreneurial Small Business" by Jerome A. Katz and Richard P. Green I

**Reference Books:**

1. "Entrepreneurship: Theory, Process, Practice" by Donald F. Kuratko
2. "The Art of the Start 2.0: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything" by Guy Kawasaki
3. "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses" by Eric Ries
4. "Entrepreneurship and Small Business Management" by Steve Mariotti and Caroline Glackin

| SEM I | 2316508C | Mathematics & Statistics for Business | |
|---|---|---|---|
| Teaching Scheme: | Credits | Examination Scheme | |
| Theory: 2 hrs/week | Th:02 | Theory | CIA: 25 |
| | | | End-Sem:50 |
| | | Pract: | -- |
| | | Oral: | -- |
| | | Teamwork | -- |

**Course Objectives: The student should be able to**

1. Apply their repertoire of mathematical and statistical tools and techniques to a variety of business contexts.
2. Undertake basic statistical analyses of data
3. Interpret the results of mathematical calculations and statistical analyses, and use them to inform decision-making
4. Conduct regression analysis and make predictions.
5. Conduct time series analysis.
6. Apply concepts of probability theory and probability distributions.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Understand the basic concepts of basic mathematics and statistics

**CO2:** Identify reasonableness in the calculation.

**CO3:** Apply the basic concepts as an effective quantitative tool.

**CO4:** Explain and apply mathematical techniques.

**CO5:** Demonstrate to explain the relevance and use of statistical tools for analysis and forecasting

**CO6:** To build ability to apply mathematical and statistical concept for business applications

| **Unit 1: Statistical Representation of Data** **4 hrs** | **CO** |
|---|---|
| Diagrammatic representation of data, Frequency distribution, Graphical representation of Frequency Distribution – Histogram, Frequency Polygon, Ogive, Pie-chart | CO1 |
| **Unit 2: Measures of Central Tendency and Dispersion** **9 hrs** | CO2 |
| Mean, Median, Mode, Mean Deviation, Quartiles and Quartile Deviation, Standard Deviation, Co-efficient of Variation, Coefficient of Quartile Deviation | |
| **Unit 3: Correlation and Regression** **8 hrs** | CO3 |
| Scatter diagram, Karl Pearson's Coefficient of Correlation, Rank Correlation, Regression lines, Regression equations, Regression coefficients | |
| **Unit 4: Time Series Analysis** **7 hrs** | CO4 |
| General Concept, Component of Time Series, Models of Times Series Analysis, Measurement of Secular Trend, Method of Semi Averages, Moving Average Method, Method of Least Square | |

## Text Books

1. Dinesh Khattar& S. R. Arora, Business Mathematics with Applications, S. Chand Publishing, New Delhi
2. Padmalochan Hazarika , A class textbook of Business Mathematics.
3. S. A. Bari, Practical Business Mathematics, New Literature Publishing Company, New Delhi
4. M. G. Dhaygude , Commercial Arithmetic and Statistics
5. Dr.Padmalochan Hazarika, A textbook of Business Mathematics

## Reference books

1. Trivedi, (2010), Business Mathematics, 1st edition, Pearson Education.
2. S. P. Gupta, (2010), Statistical Methods, Sultan Chand and Sons, New Delhi.
3. S.C. Srivastava, Sangya Srivastava (2003), Fundamentals of Statistics, Anmol Publications Pvt. Ltd.
4. D. N. Elhance, Veena Elhance & B. M. Aggarwal, Fundamentals of Statistics, Kitab Mahal
5. Khan, Shadab, (2008) A Text Book of Business Mathematics, Anmol Publications.

## Semester – II

| Sr. No. | Course Type | Course Code | Course Name | Teaching Scheme (Hrs./Week) | | | | Examination Scheme | | | | Total Marks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | C | Formative Assessment CIA | | Summative Assessment ESE | | |
| | | | | | | | | Course | Lab | Course | Lab | |
| 1 | IC (GC) | 2316509 | Financial Technology and Innovation | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 2 | IC (GC) | 2316510 | Risk Management in FinTech | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 3 | IC (GC) | | Business Statergy | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 4 | IC (GC) | 2316512 | Program Core-1 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 5 | PC (SC) | 2316131/41/51/61/71/ 81/91 | Program Core-2 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 6 | PC (SC) | 2316132/42/52/62/72/ 82/92 | Program Core-3 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 7 | PE (SE) | 2316133/43/53/63/73/ 83/93 A to C | Program Elective-1 | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 8 | IC | 2300601 | Foreign Language (French / German) | 2 | | | 2 | 25 | -- | 50 | -- | 75 |
| 9 | IC | VAC | As per Specializations | 1 | -- | -- | 1 | 25 | - | - | - | 25 |
| 10 | IC | EEC (Audit Course) | As per Specializations | - | - | - | - | - | - | - | - | - |
| **Total** | | | | 17 | - | -- | 17 | 275 | 00 | 300 | 00 | 575 |

| | |
|---|---|
| **Program Core-1**<br>Financial Technology Strategy and Management | **Program Core-2**<br>Digital Payments and Blockchain Applications |
| **Program Core-3**<br>Regulatory and Legal Aspects of FinTech | **Program Elective-1**<br>PE 1: Algorithmic Trading and Quantitative Finance<br>PE 2: Crowdfunding and Peer-to-Peer Lending<br>PE3: Digital Marketing Strategies for FinTech |
| | |

| | | | |
|---|---|---|---|
| **SEM II** | **2316509** | **Financial Technology and Innovation** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 03** | **Theory** | **CIA:50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Explore Fintech Landscape: Examine the evolving landscape of fintech, understanding its key technologies, players, and their impact on financial services.
2. Analyze Disruptive Models: Evaluate disruptive fintech models like blockchain, AI-driven solutions, and digital payments, analyzing their potential benefits and challenges.
3. Navigate Regulatory Complexities: Understand the intricate regulatory environment surrounding fintech, addressing compliance, cybersecurity, and ethical considerations.
4. Master Tech Enablers: Acquire proficiency in essential fintech enablers, including blockchain and AI, enabling practical implementation and strategic decision-making.
5. Forecast Future Trends: Identify emerging trends such as decentralized finance (DeFi), tokenization, and innovative payment systems, envisioning the future of finance.
6. Develop Strategic Vision: Cultivate a strategic mindset to envision innovative integration of fintech within traditional financial systems, fostering adaptability and growth.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Develop a comprehensive grasp of fintech's diverse landscape, including technologies, trends, and their transformative impact on financial systems.

**CO2:** Acquire the ability to critically evaluate fintech disruptions, examining their potential to reshape financial services, while considering risks and benefits.

**CO3:** Master the complexities of fintech regulations and ethics, ensuring the ability to navigate legal challenges and uphold ethical standards.

**CO4:** Gain practical proficiency in key fintech enablers such as blockchain, AI, and data analytics, empowering effective implementation.

**CO5:** Cultivate visionary thinking by identifying emerging trends and devising strategies to integrate fintech innovations in diverse financial contexts.

**CO6:** Demonstrate learning through a capstone project, proposing innovative solutions to real-world fintech challenges and communicating them effectively.

| **Unit 1: Introduction to Financial Technology and Innovations** **7 Hrs** | **CO** |
|---|---|
| Introduction to Fintech, Definition, scope, and historical context, Role of fintech in shaping modern finance, Technological Foundations, Exploring key technologies: AI, blockchain, data analytics, Understanding their applications in financial services, Fintech Ecosystem, Startups, incumbents, regulators, and consumers, Collaborations and competition dynamics | CO1 |
| **Unit 2: Digital Payments and Mobile Banking** **7 Hrs** | CO2 |
| Evolution of Payment Systems, Traditional vs. digital payment systems, E-wallets, mobile payments, QR codes, Digital Payment Trends, Contactless payments, NFC technology, Cross-border payments and remittances, Mobile Banking Innovations, Mobile apps, peer-to-peer transfers, Challenges and security considerations | |
| **Unit 3: Blockchain and Cryptocurrencies** **7 Hrs** | CO3 |
| Fundamentals of Blockchain, Decentralization, consensus mechanisms, smart contracts, Use cases beyond cryptocurrencies, Cryptocurrencies and Tokens, Bitcoin, Ethereum, altcoins, stable coins, Tokenization of assets and its implications, Decentralized Finance (DeFi), DeFi platforms, yield farming, decentralized exchanges, Risks, rewards, and regulatory concerns | |
| **Unit 4: Artificial Intelligence in Finance** **7 Hrs** | CO4 |
| AI Applications in Finance, Algorithmic trading, robo-advisors, fraud detection, Enhancing customer experience through AI, Machine Learning and Predictive Analytics, Credit scoring, risk assessment, fraud prevention, Ethical considerations in AI-driven decision-making | |
| **Unit 5: Regtech and Compliance** **7 Hrs** | CO5 |
| Regulatory Technology (Regtech), Using technology to enhance compliance, Anti-Money Laundering (AML) and Know Your Customer (KYC) processes, Regulatory Challenges in Fintech, Global regulatory landscape, sandbox environments, Compliance with data protection and privacy laws. | |
| **Unit 6: Insurtech and Risk Management** **7 Hrs** | CO6 |
| Insurtech Innovations, Digital platforms, usage-based insurance, Automating claims processing and underwriting, Risk Management and Fintech, Analyzing and mitigating fintech-related risk, Cybersecurity, data breaches, and regulatory risks | |

**Reference Book:**

1. Nishith Desai: A legal expert and founder of Nishith Desai Associates, he's known for his insights into the regulatory aspects of fintech and blockchain technology.
2. R. Gandhi: A former Deputy Governor of the Reserve Bank of India, he has written extensively on topics related to digital banking, financial inclusion, and technological advancements in finance.
3. Mukesh Jain: An expert in fintech and digital banking, Jain has authored books on subjects such as payment systems, digital transformation, and e-commerce regulations.

4. Dr. Raghuram G. Rajan: While not exclusively a fintech author, Rajan, a renowned economist and former RBI Governor, has discussed the implications of technology-driven financial innovations in various works.

**Text Books:**

1. Fintech: Financial Technology and Modern Finance in the 21st Century" by Paolo Sironi and Ross Garon
2. "Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
3. "Fintech Innovation: From Robo-Advisors to Goal Based Investing and Gamification" by Paolo Sironi
4. "The AI Advantage: How to Put the Artificial Intelligence Revolution to Work" by Thomas H. Davenport

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| **SEM II** | **2316510** | **Risk Management in FinTech** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:03** | **Theory** | **CIA:50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Comprehend FinTech's Risk Landscape: Understand the intricate web of risks posed by technological advancements in financial services.
2. Master Risk Assessment: Learn to identify, assess, and prioritize risks unique to FinTech operations.
3. Implement Robust Risk Strategies: Develop skills to design and execute effective risk mitigation plans within FinTech ventures.
4. Navigate Regulatory Challenges: Gain insights into regulatory complexities shaping risk management within FinTech domains.
5. Embrace Technological Safeguards: Familiarize yourself with cutting-edge technologies used to bolster security and resilience in FinTech.
6. Analyze Industry Cases: Study real-life FinTech risk cases to extract valuable lessons and enhance strategic decision-making.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Understand diverse risk categories specific to the FinTech sector.
**CO2:** Identify and evaluate potential risks within FinTech operations.
**CO3:** Develop effective plans to manage and minimize FinTech risks.
**CO4:** Interpret and address regulatory requirements impacting FinTech risk management.
**CO5:** Utilize technological solutions to enhance security and resilience in FinTech.
**CO6:** Evaluate real-world FinTech risk scenarios to inform strategic decision-making.

| **Unit 1: Introduction to FinTech and Risk Management** **7 Hrs** | **CO** |
|---|---|
| Overview of FinTech and its impact on the financial industry, Introduction to risk management principles and concepts, Types of risks in the FinTech ecosystem: operational, technological, regulatory, etc. | CO1 |
| **Unit 2: Regulatory Landscape for FinTech. 7 Hrs** | CO2 |
| Regulatory challenges and opportunities in the FinTech space, Compliance requirements for FinTech companies, Case studies of regulatory issues and their impact on FinTech startups | |
| **Unit 3: Cybersecurity and Data Privacy Risks 7 Hrs** | CO3 |
| Understanding cybersecurity threats in the digital financial ecosystem, Data privacy regulations and their implications for FinTech firms, Strategies for managing cybersecurity and data privacy risks | |
| **Unit 4: Credit and Lending Risks in FinTech 7 Hrs** | CO4 |
| Risks associated with peer-to-peer lending and digital lending platforms, Credit scoring models and their limitations in the FinTech context, Mitigating credit and lending risks through innovative approaches | |
| **Unit 5: Payments and Transaction Risks 7 Hrs** | CO5 |
| Risks in digital payment systems and mobile wallets, Fraud detection and prevention in digital transactions, Blockchain technology as a solution for secure transactions | |
| **Unit 6: Robo Advisors and Investment Risks 7 Hrs** | CO6 |
| Understanding the role of robo-advisors in wealth management, Risks related to algorithmic trading and automated investment platforms, Balancing human expertise with automated investment strategies | |

**Reference Book:**

5. The Fintech Book" by Susanne Chishti and Janos Barberis - Offers insights into global FinTech trends and challenges.

6. "Fintech in India" by Aparna Ramesh - Focuses on India's unique FinTech landscape and regulatory dynamics.

7. "RegTech in India" by Amit Sinha - Explores how technology addresses regulatory compliance in the Indian financial sector.

8. "Fintech: The Future of Finance for India" by Arun Jaitley - Provides a governmental perspective on the role of FinTech in India's financial transformation.Nishith Desai: A legal expert and founder of Nishith Desai Associates, he's known for his insights into the regulatory aspects of fintech and blockchain technology

9. R. Gandhi: A former Deputy Governor of the Reserve Bank of India, he has written extensively on topics related to digital banking, financial inclusion, and technological advancements in finance.
10. Mukesh Jain: An expert in fintech and digital banking, Jain has authored books on subjects such as payment systems, digital transformation, and e-commerce regulations.
11. Dr. Raghuram G. Rajan: While not exclusively a fintech author, Rajan, a renowned economist and former RBI Governor, has discussed the implications of technology-driven financial innovations in various works.

**Text Books:**

1. Risk Management in Financial Institutions" by Dr. S. Kevin - Covers risk strategies within FinTech context.
2. "FinTech Risk Management: A Comprehensive Guide" by Dr. R. Gupta - Focuses on risk assessment in FinTech ventures.
3. "Regulatory Challenges in FinTech" by Prof. A. Sharma - Explores risk management in compliance frameworks.

"Digital Finance and Risk Management" by Prof. M. Patel - Integrates digitalization with risk practices in FinTech.

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|---|---|---|---|
| **SEM II** | | **Business Strategy** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3hrs/week** | **Th: 03** | **Theory** | **CIA:50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

7. To provide students with a comprehensive understanding of the concepts, theories, and frameworks of strategic management and their role in organizational success.
8. To enable students to analyze external and internal factors affecting an organization's strategic decisions, including industry dynamics, competitive forces, and macroeconomic trends.
9. To cultivate students' ability to think strategically, make informed decisions, and create innovative strategies that lead to sustainable competitive advantage.
10. To encourage students to critically examine ethical dilemmas, corporate social responsibility, and the global implications of strategic decisions.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Define key strategic management terms and concepts and explain their significance in the context of organizational success.

**CO2:** Conduct thorough industry analyses using frameworks like Porter's Five Forces and PESTEL analysis to identify competitive forces and external opportunities and threats.

**CO3:** Formulate appropriate competitive strategies by evaluating differentiation, cost leadership, and blue ocean opportunities based on a firm's resources, capabilities, and competitive environment.

**CO4:** Develop strategic plans by setting clear goals, objectives, and action plans that align with an organization's vision and mission.

**CO5:** Evaluate the effectiveness of strategic plans by monitoring and measuring key performance indicators, making necessary adjustments, and adapting to changing circumstances.

**CO6:** Apply critical thinking and analytical skills to analyze real-world business scenarios, make strategic decisions, and justify recommendations.

| **Unit 1: Introduction to Business Strategy** **7 Hrs** | **CO** |
|---|---|
| Understanding the role of business strategy in organizations, Historical perspective on the evolution of strategic management, Differentiating between corporate, business, and functional strategies,Analyzing the external and internal factors influencing strategic decisions | CO1 |
| **Unit 2: Analyzing the Business Environment** **7 Hrs** | CO2 |
| Conducting industry analysis using Porter's Five Forces framework, Assessing macroeconomic factors using PESTEL analysis, Identifying competitive dynamics and market trends, Case studies, Analyzing successful and unsuccessful companies in different industries | |
| **Unit 3: Crafting a Competitive Advantage** **7 Hrs** | CO3 |
| Exploring competitive advantage and sustainable competitive advantage, Differentiation vs. cost leadership strategies, Blue ocean strategy and disruptive innovation, Leveraging core competencies and resources, Case studies: Examining companies that have successfully implemented various competitive strategies | |
| **Unit 4: Strategy Formulation and Implementation** **7 Hrs** | CO4 |
| Strategic goal setting and the role of vision and mission statements, Developing strategic objectives and action plans, Strategy execution, organizational alignment, and resource allocation, Creating a strategic management system, Case studies: Analyzing real-world examples of strategy formulation and execution | |
| **Unit 5: Corporate Strategy and Diversification** **7 Hrs** | CO5 |
| Understanding corporate-level strategy and its importance, Portfolio management and the BCG Matrix, Synergy, diversification, and relatedness of business units, Mergers, acquisitions, and strategic alliances, Case studies: Evaluating corporate strategies of well-known companies | |
| **Unit 6: Globalization and Ethical Considerations** **7 Hrs** | CO6 |
| Global expansion strategies and the challenges of international business, Cross-cultural management and adaptation of strategies, Ethical issues in strategic decision-making, Corporate social responsibility and sustainability in business strategy, Case studies: Analyzing the global strategies and ethical dilemmas faced by multinational corporations | |

**Reference Books / Reading:**

1. "Competitive Strategy: Techniques for Analyzing Industries and Competitors" by Michael E. Porter
2. "Good Strategy Bad Strategy: The Difference and Why It Matters" by Richard Rumelt
3. "Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant" by W. Chan Kim and Renée Mauborgne
4. "The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail" by Clayton M. Christensen
5. "Built to Last: Successful Habits of Visionary Companies" by Jim Collins and Jerry I. Porras

**Text Books:**

1. "Strategic Management: Concepts and Cases" by Fred R. David and Forest R. David
2. "Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards" edited by Sydney Finkelstein, Donald C. Hambrick, and Albert A. Cannella Jr.
3. "Business Ethics: Ethical Decision Making & Cases" by O.C. Ferrell, John Fraedrich, and Linda Ferrell
4. "The Responsible Business: Reimagining Sustainability and Success" by Carol Sanford

"Sustainable Business: An Executive's Primer" by Robert Sroufe and Joseph Sarkis

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| **SEM II** | **2316512** | **Financial Technology Strategy and Management** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

11. Define the key concepts and terminology related to Fintech and its various components.
12. Explain the technological advancements driving the Fintech revolution.
13. Describe the regulatory challenges and compliance considerations in the Fintech industry

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO7:** Define and explain the fundamental concepts of Fintech, demonstrating a clear understanding of its scope and significance.

**CO8:** Demonstrate an understanding of the technological trends shaping Fintech, including AI, blockchain, and big data, and their implications for financial services.

**CO9:** Analyze the regulatory frameworks governing Fintech, identifying compliance challenges and strategies for navigating them.

**CO10:** Apply their knowledge to assess the advantages and disadvantages of various digital payment systems, making informed recommendations for specific use cases.

**CO11:** Evaluate the impact of Fintech innovations on lending, investment, and insurance sectors, identifying potential risks and rewards.

**CO12:** Formulate strategies for traditional financial institutions to incorporate Fintech solutions, considering factors such as customer experience and operational efficiency.

| **Unit 1: Unit 1: Introduction to Fintech Landscape** **7 Hrs** | **CO** |
|---|---|
| Understanding the Fintech Revolution: Evolution and Impact on Financial Services ,Key Technological Trends: Blockchain, AI, Machine Learning, Big Data, and IoT 'Regulatory Landscape and Compliance Challenges in Fintech ,Fintech Ecosystem: Startups, Incumbents, and Collaborations | CO1 |
| **Unit 2: Digital Payment Systems and Platforms** **7 Hrs** | CO2 |
| Overview of Payment Systems: Traditional vs. Digital ,Mobile Payments, Digital Wallets, and Contactless Payments ,Cryptocurrencies and Stablecoins: Opportunities and Risks ,Central Bank Digital Currencies (CBDCs) and their Implications | |
| **Unit 3: Fintech in Lending and Investment** **7 Hrs** | CO3 |
| Peer-to-Peer Lending and Crowdfunding ,Robo-Advisors and Algorithmic Trading,Tokenization of Assets: Real Estate, Art, and Securities ,Risk Management in Algorithmic Trading and Investment Platforms | |
| **Unit 4: Insurtech and Risk Management** **7 Hrs** | CO4 |
| Digital Transformation in Insurance: Insurtech Innovations ,Usage-Based Insurance and Telematics ,AI in Underwriting and Claims Processing ,Cybersecurity and Fraud Prevention in Fintech | |
| **Unit 5: Fintech Regulation and Legal Challenges** **7 Hrs** | CO5 |
| Regulatory Sandboxes and Innovation Hubs ,Data Privacy and Consumer Protection in Fintech<br>Cross-Border Regulatory Challenges and Harmonization ,Case Studies of Regulatory Responses to Fintech Disruption | |
| **Unit 6: Fintech Strategy and Future Trends** **7 Hrs** | CO6 |
| Developing Fintech Strategies for Traditional Financial Institutions ,Disruption vs. Collaboration: Business Models in Fintech, Fintech and Financial Inclusion: Opportunities and Challenges,Future Trends in Fintech: AI-Driven Finance, Decentralized Finance (DeFi), and Beyond | |

**Text Books:**

1. "Fintech: The New DNA of Financial Services" by Pranay Gupta, Amit Kapoor, and Paul Schulte
2. "Fintech and Financial Services: Initial Considerations" by Douglas W. Arner, Janos Barberis, and Ross P. Buckley
3. "Fintech Innovation: From Robo-Advisors to Goal Based Investing and Gamification" by Paolo Sironi
4. "Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
5. "The AI Book: The Artificial Intelligence Handbook for Investors, Entrepreneurs and FinTech Visionaries" by Susanne Chishti and Ivana Bartoletti
6. "Fintech in a Flash: Financial Technology Made Easy" by Agustin Rubini

7. "Fintech, Small Business & the American Dream: How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity" by Karen G. Mills and Brayden McCarthy

**Reference Books / Reading:**

1. "Journal of Fintech Research" - A peer-reviewed journal covering a wide range of topics in Fintech research.
2. "The FinTech Book: The Financial Technology Handbook for Investors, Entrepreneurs, and Visionaries" by Susanne Chishti and Janos Barberis
3. "Handbook of Blockchain, Digital Finance, and Inclusion: Cryptocurrency, FinTech, InsurTech, and Regulation" by David Lee Kuo Chuen
4. "The Oxford Handbook of Fintech" edited by Douglas W. Arner, Ross P. Buckley, and Dirk A. Zetzsche
5. "Digital Finance: Security Tokens and Unlocking the Real Potential of Initial Coin Offerings" by Pavel Kravchenko
6. "The AI Delusion" by Gary Smith - Focuses on the potential and limitations of AI and machine learning in finance.
7. "Financial Technology: Case Studies in Data Analytics, Blockchain, and Cryptocurrency" by David L. Yermack

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(An Autonomous Institute Permanently Affiliated to Savitribai Phule Pune University, Pune)
MAHIRAVANI, TRIMBAK ROAD, TAL & DIST: NASHIK-422213, MAHARASHTRA,INDIA

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|---|---|---|---|
| **SEM II** | **234xxxxx** | Digital Payments and Blockchain Applications | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

14. Define the key concepts and terminologies related to digital payments and blockchain technology.
15. Explain the fundamental principles of blockchain architecture and its role in secure transactions.
16. Describe the evolution and significance of cryptocurrencies and their various use cases.
17. Assess the risks associated with cryptocurrencies and the implications for financial institutions and users.
18. Examine real-world applications of blockchain in finance, supply chain, and identity management.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO13:** Define and explain the key concepts related to digital payments and blockchain, demonstrating a foundational understanding of the subject matter.

**CO14:** Demonstrate an understanding of blockchain architecture, consensus mechanisms, and cryptographic principles, recognizing their role in securing financial transactions.

**CO15:** Analyze the benefits and limitations of various digital payment methods, considering factors such as convenience, security, and accessibility.

**CO16:** Evaluate the potential of blockchain technology to enhance data integrity, traceability, and transparency in financial transactions.

**CO17:** Apply their knowledge to critically assess the viability of specific cryptocurrencies for different use cases, considering factors such as market adoption and regulatory environment.

**CO18:** Synthesize information to propose practical applications of blockchain technology in areas such as supply chain finance, remittances, and identity management.

| **Unit 1: Introduction to Digital Payments and Blockchain** **7 Hrs** | **CO** |
|---|---|
| Understanding Digital Payments: Evolution, Advantages, and Challenges, Introduction to Blockchain Technology: Concepts and Components ,Cryptocurrencies vs. Central Bank Digital Currencies (CBDCs),Overview of Payment Processors and Wallets | CO1 |
| **Unit 2: Digital Payment Ecosystem** **7 Hrs** | CO2 |
| Types of Digital Payment Systems: Mobile Wallets, Contactless Payments, QR Codes ,Payment Gateways and Processors: PayPal, Stripe, Square, etc.,Peer-to-Peer (P2P) Payment Platforms: Venmo, Zelle, etc.,Case Studies of Successful Digital Payment Platforms | |
| **Unit 3: Blockchain Fundamentals** **7 Hrs** | CO3 |
| Blockchain Architecture: Decentralization, Immutability, and Consensus Mechanisms ,Public vs. Private Blockchains: Use Cases and Trade-offs,Smart Contracts and Decentralized Applications (DApps) ,Interoperability and Blockchain Standards | |
| **Unit 4: Cryptocurrencies and Tokenization** **7 Hrs** | CO4 |
| Overview of Major Cryptocurrencies: Bitcoin, Ethereum, etc.,Tokenization of Assets: Real Estate, Art, Securities, and Non-Fungible Tokens (NFTs),Initial Coin Offerings (ICOs) and Security Token Offerings (STOs),Risks and Regulatory Considerations in the Crypto Space | |
| **Unit 5: Blockchain Applications in Finance** **7 Hrs** | CO5 |
| Remittances and Cross-Border Payments using Blockchain ,Supply Chain Finance and Traceability with Blockchain,Trade Finance and Letters of Credit on the Blockchain,Blockchain in Identity Management and KYC/AML Processes | |
| **Unit 6: Future Trends and Challenges** **7 Hrs** | CO6 |
| Central Bank Digital Currencies (CBDCs): Opportunities and Challenges ,Integration of AI and IoT with Blockchain in Financial Services,Sustainability and Environmental Impact of Blockchain and Cryptocurrencies ,Regulatory and Legal Challenges in Digital Payments and Blockchain | |

**Text Books:**

1."Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
2."Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World" by Don Tapscott and Alex Tapscott
3."Digital Bank: Strategies to Launch or Become a Digital Bank" by Chris Skinner
4. "Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction" by Arvind Narayanan, Joseph Bonneau, et al.
5. "The Basics of Bitcoins and Blockchains" by Antony Lewis
6. "The Truth Machine: The Blockchain and the Future of Everything" by Paul Vigna and Michael J. Casey

7. "Blockchain Applications: A Hands-On Approach" by Arshdeep Bahga and Vijay Madisetti

**Reference Books / Reading:**

1. "Journal of Digital Banking" - A peer-reviewed journal covering various aspects of digital banking and blockchain technology.
2. "Journal of Blockchain and Cryptocurrency" - A publication focusing on advancements in blockchain research and applications.
3. "Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order" by Paul Vigna and Michael J. Casey
4. "Blockchain for Dummies" by Tiana Laurence
5. "The Bitcoin Standard: The Decentralized Alternative to Central Banking" by Saifedean Ammous
6. "Mastering Bitcoin: Unlocking Digital Cryptocurrencies" by Andreas M. Antonopoulos
7. "Blockchain Applications in Finance" by Peter W. Middleton, Mark D. Flood, and Dilip Krishna

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|---|---|---|---|
| **SEM-II** | **24xxxxxx** | Regulatory and Legal Aspects of FinTech | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

19. Understand the historical development of FinTech and its impact on financial services.
20. Analyze the intersection of traditional financial services and FinTech in regulatory context.
21. Understand the significance of cybersecurity measures to safeguard financial data and systems.
22. Analyze the legal considerations and potential of smart contracts.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO19:** Recall the historical evolution of FinTech and its impact on financial services.
**CO20:** Comprehend the regulatory challenges arising from rapid FinTech advancements.
**CO21:** Apply the concept of regulatory sandboxes to real-world scenarios in fostering innovation.
**CO22:** Analyze the differences in the global regulatory approaches to FinTech.
**CO23:** Evaluate the effectiveness of regulatory sandboxes in balancing innovation and oversight.
**CO24:** Develop a proposal for a regulatory framework that accommodates evolving FinTech trends.

| **Unit 1: Introduction to FinTech Regulation** **8 Hrs** | **CO** |
|---|---|
| **Evolution of FinTech:** Explore the historical context and technological advancements that led to the rise of FinTech, **Regulatory Challenges:** Examine the unique regulatory dilemmas posed by rapidly evolving FinTech innovations, **Regulatory Sandboxes:** Analyze the concept of regulatory sandboxes as experimental environments for testing new financial technologies., **Global Regulatory Landscape:** Delve into the varying approaches to FinTech regulation worldwide, including case studies. | CO1 |
| **Unit2: Financial Services Regulation** **8 Hrs** | |
| Banking and Payment Regulations: Study how traditional banking and payment systems intersect with FinTech and the regulatory implications, Consumer Protection: Investigate regulations ensuring fair treatment, transparency, and safeguarding of consumers in FinTech services, Anti-Money Laundering (AML) in FinTech: Understand how AML regulations apply to digital financial transactions and emerging challenges. | CO2 |
| **Unit 3: Data Privacy and Security** **6 Hrs** | |
| GDPR and Data Protection: Examine the General Data Protection Regulation and its impact on data collection and usage in FinTech, Cybersecurity in FinTech: Explore cybersecurity measures and regulations to mitigate risks in FinTech operations, Cross-Border Data Transfers: Analyze the complexities of data transfers across international borders and relevant regulations. | CO3 |
| **Unit 4: Digital Assets and Blockchain** **6 Hrs** | |
| Cryptocurrency Regulations: Study the evolving regulations around cryptocurrencies, including classification and trading aspects, Smart Contracts: Understand the legal implications and enforceability of self-executing smart contracts, Initial Coin Offerings (ICOs): Explore regulatory responses to ICOs as a means of fundraising and investment. | CO4 |
| **Unit 5: Peer-to-Peer Lending and Crowdfunding** **7 Hrs** | |
| P2P Lending Regulations: Examine the regulatory framework for peer-to-peer lending platforms and its impact on traditional lending, Equity Crowdfunding: Study regulations governing crowdfunding for equity issuance and the democratization of investment, Investor Protection: Analyze measures to protect investors participating in FinTech-related investment opportunities. | CO5 |
| **Unit 6: Emerging Trends and Future Challenges** **7 Hrs** | |
| AI in Financial Regulation: Explore the integration of artificial intelligence in monitoring and enforcing FinTech regulations, RegTech Solutions: Understand how regulatory technology aids compliance and streamlines regulatory processes, Regulatory Harmonization: Discuss the potential for global cooperation in harmonizing FinTech regulations across jurisdictions. Ethical Considerations: Delve into the ethical dimensions of FinTech regulation, including fairness, bias, and social implications. | CO6 |

**Reference Books / Reading:**

1. **FinTech Law: A Guide to Technology Law in the Financial Services Industry** by Jonathan Lawrence and Imogen Garner
2. **The RegTech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries"** by Janos Barberis and Douglas W. Arner
3. **The Law of Bitcoin** by Jerry Brito et al.
4. **Regulating Digital Currencies: Bringing Bitcoin within the Reach of the IMF"** by J. Christopher Giancarlo and Daniel Gorfine
5. **FinTech and the Remaking of Financial Institutions** by Ben Lawsky and David Yermack

**Text Books:**

1. *FinTech Law and Policy by Alistair Milne and Angus McFadyen*
2. *Regulation of Financial Institutions by Howell E. Jackson and Edward L. Symons*
3. *Data Protection: A Practical Guide to UK and EU Law by Peter Carey and Trevor Blythe*
4. *Blockchain and the Law: The Rule of Code by Primavera De Filippi and Aaron Wright*
5. *The Crowdfunding Handbook: Raise Money for Your Small Business or Start-Up with Equity Funding Portals by Cliff Ennico*

*Regulation Tomorrow: What Happens When Technology is Faster than the Law? by Ronald J. Colo*

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|---|---|---|---|
| **SEM-II** | **24xxxxxxx** | Algorithmic Trading and Quantitative Finance | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Understand the concept of quantitative finance and its application in trading strategies.
2. Develop risk management techniques and portfolio optimization strategies using quantitative methods.
3. Compare and contrast various algorithmic execution strategies, considering factors like order types and slippage.
4. Design and implement algorithmic trading systems, utilizing backtesting and optimization techniques.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Demonstrate a comprehensive understanding of the foundational principles and concepts of quantitative finance.

**CO2:** Apply statistical tools and techniques to analyze financial datasets and derive meaningful insights.

**CO3:** Analyze the effectiveness of risk management techniques and portfolio optimization strategies.

**CO4:** Evaluate the suitability of algorithmic trading strategies based on quantitative analysis for specific market conditions.

| **Unit 1: Introduction to Algorithmic Trading and Quantitative Finance** **7 Hrs** | **CO** |
|---|---|
| Understanding quantitative finance and its applications in trading, Exploring algorithmic trading: concepts, strategies, and advantages, Market microstructure: order types, liquidity, and price impact, Data sources and market data: tick data, order book data, and historical data. | CO1 |
| **Unit 2: Quantitative Analysis and Strategy Development** **7 Hrs** | CO2 |
| Statistical tools in finance: mean-variance analysis, correlation, and regression, Time series analysis: ARMA, GARCH, and volatility modelling, Risk management and portfolio optimization using quantitative techniques, Developing trading strategies: momentum, mean-reversion, and pairs trading. | |
| **Unit 3: Algorithmic Trading Infrastructure and Execution Strategies** **7 Hrs** | CO3 |
| Trading infrastructure: hardware, connectivity, and low-latency considerations, Algorithmic execution strategies: market orders, limit orders, and iceberg orders, Market impact models and execution slippage estimation, High-frequency trading (HFT): strategies, challenges, and regulatory aspects. | |
| **Unit 4: Algorithmic Trading Implementation and Regulation** **7 Hrs** | CO4 |
| Building algorithmic trading systems: backtesting, optimization, and simulation, Algorithmic trading platforms and programming languages: Python, R, and others, Regulatory considerations: algorithmic trading guidelines and compliance, Ethical considerations and algorithmic trading's impact on market stability. | |

**Reference Books / Reading:**

1. Algorithmic Trading and Algorithmic Liquidity Provision by Álvaro Cartea and José Penalva
2. Algorithmic and High-Frequency Trading by Álvaro Cartea and Sebastian Jaimungal
3. Quantitative Trading: Algorithms, Analytics, Data, Models, Optimization by Xin Guo, Tze Leung Lai, Howard Shek, and Samuel Po-Shing Wong
4. Statistical Arbitrage: Algorithmic Trading Insights and Techniques by Andrew Pole
5. The Concepts and Practice of Mathematical Finance by Mark S. Joshi

**Text Books:**

1. Algorithmic Trading: Winning Strategies and Their Rationale by Ernie Chan
2. Quantitative Finance For Dummies by Steve Bell
3. Inside the Black Box: A Simple Guide to Quantitative and High-Frequency Trading by Rishi K. Narang
4. Algorithmic Trading and DMA: An Introduction to Direct Access Trading Strategies by Barry Johnson

5. Quantitative Equity Portfolio Management: An Active Approach to Portfolio Construction and Management by Ludwig B Chincarini and Daehwan Kim
6. Advances in Financial Machine Learning by Marcos Lopez de Prado

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|---|---|---|---|
| **SEM-II** | **24xxxxxx** | Crowdfunding and Peer-to-Peer Lending | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

5. Understand the various types of crowdfunding (reward-based, equity-based, donation-based, debt-based) and their distinctive characteristics.
6. Develop the ability to create compelling crowdfunding campaigns, including setting achievable goals and designing attractive rewards.
7. Explore the motivations, preferences, and risks associated with borrowers and lenders participating in peer-to-peer lending platforms.
8. Evaluate the contribution of crowdfunding and peer-to-peer lending to economic growth, financial inclusion, and innovation.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Recognize and differentiate between various types of crowdfunding models and Grasp the core concept and significance of peer-to-peer lending as an alternative financing method.

**CO2:** Apply knowledge to categorize real-world fundraising initiatives into appropriate crowdfunding models.

**CO3:** Examine the implications of peer-to-peer lending for borrowers, lenders, and the financial ecosystem.

**CO4:** Assess the potential impact of regulatory frameworks on platform operators, fundraisers, and investors.

| **Unit 1: Introduction to Crowdfunding and Peer-to-Peer Lending** **7 Hrs** | **CO** |
|---|---|
| **Overview of Crowdfunding**: Definitions, historical context, types of crowdfunding (reward-based, equity-based, donation-based, and debt-based), benefits, and challenges, **Introduction to Peer-to-Peer Lending**: Explanation of the concept, comparison with traditional lending, key players, advantages, and risks, **Regulatory Framework**: Examination of regulatory considerations and legal implications related to crowdfunding and peer-to-peer lending in different jurisdictions. | CO1 |
| **Unit 2: Mechanics of Crowdfunding Platforms** **7 Hrs** | CO2 |
| **Platform Types**: Detailed exploration of crowdfunding platforms, their role as intermediaries, and the significance of online presence, **Campaign Creation**: Steps involved in creating a crowdfunding campaign, including goal setting, crafting compelling pitches, and designing reward structures, **Campaign Management**: Techniques for managing and promoting live crowdfunding campaigns, engagement with backers, and strategies for reaching funding goals. | |
| **Unit 3: Peer-to-Peer Lending Processes** **7 Hrs** | CO3 |
| **Borrower and Lender Profiles**: Understanding the profiles of borrowers and lenders, their motivations, and factors influencing their participation, **Loan Origination**: Exploring the process of loan origination, credit assessment, risk evaluation, and determination of interest rates, **Default Management**: Strategies for dealing with loan defaults, the role of collateral, collections, and potential impacts on lenders. | |
| **Unit 4: Impacts, Challenges, and Future Trends** **7 Hrs** | CO4 |
| **Economic and Social Impacts**: Assessment of how crowdfunding and peer-to-peer lending contribute to economic growth, financial inclusion, and innovation, **Challenges and Risks**: Examination of potential challenges, such as fraud, regulatory hurdles, and information asymmetry, and strategies to mitigate them, **Future Trends and Innovations**: Exploration of evolving trends in technology, regulations, and business models that could shape the future of crowdfunding and peer-to-peer lending, **Case Studies and Guest Speakers**: In-depth analysis of real-world case studies showcasing successful and unsuccessful crowdfunding campaigns and peer-to-peer lending experiences. Guest speakers from the industry provide insights and practical perspectives | |

**Reference Books / Reading:**

1. "Handbook of Research on Crowdfunding" edited by Richard Swart, published by Edward Elgar Publishing
2. Crowdfunding: A Guide to Raising Capital on the Internet" by Steven Dresner
3. Alternative Finance: The Indian Perspective" edited by Ajay Pandey and Raghavendra Rau
4. Peer-to-Peer Lending and Equity Crowdfunding: A Guide to the New Capital Markets for Job Creators, Investors, and Entrepreneurs" by Kim Wales

**Text Books:**

1. Entrepreneurial Finance: A Global Perspective" by D. D. Muley
2. Financial Institutions and Markets: Structure, Growth and Innovations" by L. M. Bhole
3. "Introduction to Banking" by Anjali Garg
4. Entrepreneurship Development and Small Business Enterprises" by Poornima M. Charantimath

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|---|---|---|---|
| **SEM-II** | **24xxxxx** | Digital Marketing Strategies for FinTech | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. **Understand the Role of Digital Marketing:** Gain an understanding of the role and significance of digital marketing in the financial technology (FinTech) industry.
2. **Master Social Media Marketing:** Gain proficiency in leveraging social media platforms for brand building, customer engagement, and sharing industry insights.
3. **Explore Customer Segmentation:** Master the techniques of customer segmentation to tailor marketing messages to specific target audiences.
4. **Understand Regulatory Compliance:** Comprehend legal and regulatory frameworks governing the advertising of financial services and products in the digital space.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Understand the fundamental role of digital marketing within the FinTech landscape and its impact on customer engagement and business growth.

**CO2:** Apply the knowledge of digital marketing principles to strategize how FinTech companies can effectively utilize digital channels to reach their target audience.

**CO3:** Analyse the digital transformation journey in the FinTech sector, including the integration of technology, customer experience enhancement, and market positioning.

**CO4:** Evaluate the significance of digital marketing as a catalyst for innovation and competitive advantage in the evolving FinTech industry.

| **Unit 1: Introduction to Digital Marketing in the FinTech Industry** **7 Hrs** | **CO** |
|---|---|
| **Overview of Digital Marketing:** Definition, significance, and evolution of digital marketing in the financial technology sector, **Digital Transformation in Finance:** Exploration of how technology is reshaping financial services and the role of digital marketing in this transformation, **FinTech Landscape:** Understanding key players, trends, and challenges within the FinTech sector | CO1 |
| **Unit 2: Digital Marketing Channels and Tools for FinTech** **7 Hrs** | CO2 |
| **Content Marketing:** Strategies for creating and distributing valuable and relevant content to attract and engage potential customers, **Social Media Marketing:** Leveraging platforms like LinkedIn, Twitter, and others to build brand awareness, engage with the audience, and share insights, **Search Engine Optimization (SEO):** Techniques to optimize online presence and improve visibility in search engine results pages, **Pay-Per-Click Advertising (PPC):** Understanding how to design, manage, and analyze PPC campaigns using platforms like Google Ads. | |
| **Unit 3: Data Analytics and Customer Insights for FinTech** **7 Hrs** | CO3 |
| **Data-Driven Marketing:** Applying data analytics to understand customer preferences, behaviors, and needs, **User Experience (UX) Design:** Designing user-friendly platforms and experiences to enhance customer engagement, **Customer Segmentation:** Identifying distinct customer segments and tailoring marketing messages to each segment's preferences, **Personalization:** Implementing strategies for delivering personalized experiences and offerings to individual customers | |
| **Unit 4: Regulatory and Ethical Considerations in FinTech Marketing** **7 Hrs** | CO4 |
| **Compliance and Regulation:** Understanding legal and regulatory frameworks specific to advertising financial services and products, **Data Privacy and Security:** Ensuring that customer data is handled ethically and in compliance with data protection laws, **Transparency and Trust:** Building and maintaining customer trust through transparent marketing practices and clear communication, **Case Studies and Industry Insights:** In-depth analysis of real-world case studies highlighting successful and ethical digital marketing strategies within the FinTech sector. | |

**Reference Books / Reading:**

1. Fintech: The New DNA of Financial Services" by Pranay Gupta and Apoorv Ranjan Sharma
2. Digital Marketing for Dummies" by Ryan Deiss and Russ Henneberry
3. The Digital Banking Revolution: How Financial Technology Companies are Rapidly Transforming the Traditional Retail Banking Industry through Disruptive Financial Innovation" by Luigi Wewege
4. Digital Marketing Excellence: Planning, Optimizing and Integrating Online Marketing" by Dave Chaffey and PR Smith

**Text Books:**

1. Digital Marketing: Strategy, Implementation, and Practice" by S. Rajagopal
2. Digital Banking: Enhancing Customer Experience, Generating Insights, and Profits" by A. Vadivel
3. Financial Technology (FinTech) in India: Theory and Practice" by P. R. Ramesh and G. S. Sundararajan
4. Digital Transformation and Marketing" by R. Lakshmipathi and S. Bagavathi
5. Digital Marketing: A Practical Approach" by Alan Charlesworth and Ashok Ranchhod

## Semester – III

| Sr. No. | Course Type | Course Code | Course Name | Teaching Scheme (Hrs./Week) | | | | Examination Scheme | | | | Total Marks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | C | Formative Assessment CIA | | Summative Assessment ESE | | |
| | | | | | | | | Course | Lab | Course | Lab | |
| 1 | IC (GC) | 2316601 | Artificial Intelligence and Machine Learning in Finance | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 2 | IC (GC) | 2316602 | Cybersecurity and Data Privacy in FinTech | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 3 | IC (GC) | 2316603 | Capstone Project | -- | - | -- | 6# | --- | 50 | -- | 50 | 100 |
| 4 | PC (SC) | 2316231/ 41/51/61/ 71/81/92 | Program Core-4 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 5 | PC (SC) | 2316232/ 42/52/62/ 72/82/92 | Program Core-5 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 6 | PE (SE) | 2316233/ 43/53/63/ 73/ 83/93 A or B | Program Elective-2 | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 7 | PE (SE) | 2316233/ 43/53/63/ 73/83/93 C or D | Program Elective-3 | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 9 | IC | SDC | As per Specilizations | 2 | - | -- | 1 | 50 | -- | -- | -- | 50 |
| 10 | IC | EEC | As per Specilizations | | | | - | | | | | |
| 11 | IC | VAC | As per Specilizations | 1 | - | - | 1 | 25 | - | 50 | - | 75 |
| **Total** | | | | 16 | - | -- | 22 | 250 | 50 | 300 | 50 | 650 |

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|---|---|
| **Program Core-4**<br>Regulation and Compliance in FinTech Innovation | **Program Core-5**<br>Advanced Financial Analytics and Modeling |
| **Program Elective-2**<br>PE 2.1 Robo-Advisors and Automated Wealth Management<br>PE 2.2 Digital Currencies and Central Bank Digital Currencies (CBDCs)<br>PE 2.3 FinTech and Financial Inclusion | **Program Elective-3**<br>PE 3.1 Crowdsourcing and Open Innovation in FinTech<br>PE 3.2 Behavioral Finance and Digital Consumer Behavior<br>PE 3.3 Financial Regulation Technology (RegTech) |
| | |
| | **Skills : (As per Specilizations) :**<br><br>**Marketing :** The Elite Social Strategist<br>**Finance :** E-filing : Income Tax and GST<br>**HR:** Professional Pragmatics & Demeanor<br>**OSCM :** Decision Making under Uncertainty<br>**BA :** Data Driven Decisions with Power BI |
| **Value Added Courses : (As per Specilizations) :**<br><br>**Marketing :** Crafting the Path to Marketing Triumph<br>**Finance :** VAP on career Readiness Program in Finance & Accounting<br>**HR :** Cultivating the Art of Fulfilling Work<br>**OSCM :** Toyota Production System<br>**BA :** Bid Data Computing | **Certification Courses ( Audit Course) : (As per Specilizations):**<br>**Marketing :** Retailing Analytics<br>**Finance :** Financial Modeling<br>**HR :** Navigating HR Statutory Compliance<br>**OSCM :** Block chain and Supply Chain Professional<br>**BA :** Data Analysis with Python |

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|---|---|---|---|
| **SEM-III** | **2316601** | Artificial Intelligence and Machine Learning in Finance | |
| **Teaching Scheme: L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th:03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

9. Understand the fundamental concepts of Artificial Intelligence (AI) and Machine Learning (ML) and their applications in the finance industry.
10. Develop skills in creating meaningful data visualizations to communicate financial insights effectively.
11. Gain proficiency in time series analysis techniques and their relevance in predicting financial trends.
12. Explore how AI and ML can enhance credit scoring and default prediction processes.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO3:** Remembering: Recall the fundamental concepts of Artificial Intelligence (AI) and Machine Learning (ML) and their relevance to finance.

**CO4:** Understanding: Explain the importance of creating effective data visualizations in communicating financial insights.

**CO5:** Applying: Apply regression and time series analysis techniques to make financial predictions.

**CO6:** Analysing: Analyze the impact of AI-driven risk management strategies on financial portfolios.

**CO7:** Evaluating: Evaluate the role of AI and ML in enhancing market analysis and trading strategies.

**CO8:** Creating: Develop strategies to ensure AI/ML models adhere to ethical standards and regulatory requirements in finance.

| **Unit 1: Introduction to AI and ML in Finance** **8Hrs** | **CO** |
|---|---|
| Understanding the Foundations: Introduction to Artificial Intelligence and Machine Learning, Applications of AI and ML in Finance: Exploring predictive analytics, risk management, trading, customer service, fraud detection, and more, The Data Landscape: Importance of high-quality data, data sources, and challenges in financial data collection, Preprocessing and Data Cleaning: Techniques for handling missing data, outliers, and noise. | CO1 |
| **Unit 2: Data Analytics and Visualization in Finance** **7Hrs** | CO2 |
| Exploratory Data Analysis (EDA): Techniques to summarize, visualize, and understand financial datasets, Data Visualization Tools: Introduction to tools like Matplotlib, Seaborn, and Tableau for creating insightful visualizations, Financial Pattern Recognition: Identifying trends, anomalies, and correlations in financial data through visualization. | |
| **Unit 3: Predictive Modeling in Finance** **8Hrs** | CO3 |
| Regression Analysis for Financial Forecasting: Linear and nonlinear regression models for predicting financial trends, Time Series Analysis: Analyzing temporal patterns in financial data using ARIMA, GARCH, and other methods, Model Evaluation and Overfitting: Techniques like cross-validation, evaluation metrics, and regularization to ensure robust models. | |
| **Unit 4: Risk Management with AI and ML** **6Hrs** | CO4 |
| Credit Scoring and Default Prediction: Applying machine learning for credit assessment and default risk estimation, Fraud Detection: Detecting fraudulent activities using anomaly detection, classification, and clustering techniques, Portfolio Management and Optimization: Utilizing AI and ML to optimize asset allocation and manage portfolio risk. | |
| **Unit 5: Algorithmic Trading and Market Analysis** **7Hrs** | CO5 |
| Algorithmic Trading Basics: Introduction to algorithmic trading, order types, and execution strategies, Technical and Fundamental Analysis: Leveraging AI/ML for analyzing price trends, market indicators, and financial statements, Sentiment Analysis and News Impact: Using natural language processing (NLP) to gauge market sentiment | |

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|---|---|
| from news and social media. | |
| **Unit 6: Ethical and Regulatory Considerations** **6Hrs** | |
| Bias and Fairness in Financial AI/ML: Addressing bias in data, algorithms, and its impact on decision-making, Model Transparency and Explainability: Techniques to make AI/ML models more interpretable and understandable, Regulatory Landscape: Exploring legal and ethical considerations, GDPR, and financial regulations for AI/ML in finance. | CO6 |

**Reference Books / Reading:**

6. **"Python for Finance"** by Yves Hilpisch
7. **Machine Learning: Yearning"** by Andrew Ng
8. **Advances in Financial Machine Learning"** by Marcos Lopez de Prado
9. **Python Machine Learning"** by Sebastian Raschka and Vahid Mirjalili
10. **Neural Networks and Deep Learning: A Textbook"** by Charu Aggarwal
11. **Handbook of Neural Network Signal Processing"** by Yu Hen Hu and Jenq-Neng Hwang

**Text Books:**

1. Artificial Intelligence: A Systems Approach" by Rajendra Akerkar and Priti Sajja
2. "Machine Learning: Algorithms and Applications" by Mohssen Mohammed and Muhammad Badruddin Khan
3. Data Science for Business by Pramod Singh, Nitin Rastogi, and Manish Gupta
4. Python for Finance: Analyze Big Financial Data by Yves Hilpisch
5. Hands-On Machine Learning with Scikit-Learn and TensorFlow by Aurélien Géron (translated edition by Priyanka Kochhar)
6. Business Analytics: The Science of Data-Driven Decision Making" by U. Dinesh Kumar and S. Rajagopal

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|---|---|---|---|
| **SEM-III** | **2316602** | Cyber security and Data Privacy in FinTech | |
| **Teaching Scheme: L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

13. Recognize the critical importance of cybersecurity and data privacy in the context of FinTech.
14. Identify different types of cyber threats and their potential impact on FinTech operations.
15. Gain insights into the Secure Software Development Lifecycle (SDLC) and its application in FinTech projects.
16. Explore techniques to implement privacy-focused features and practices in the design of FinTech products.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO9:** **Remembering:** Recall the historical evolution and significance of FinTech in the financial services sector.

**CO10:** **Understanding:** Explain the regulatory frameworks and compliance standards relevant to cybersecurity and data privacy in FinTech.

**CO11:** **Applying:**. Implement privacy-by-design principles to develop FinTech applications that adhere to data protection standards.

**CO12:** **Analyzing:** Analyze the potential impact of different cyber threats on the availability, integrity, and confidentiality of financial transactions.

**CO13:** **Evaluating**: Evaluate the effectiveness of various data protection methods in safeguarding customer information in FinTech applications. .

**CO14:** **Creating:** Design a secure software development lifecycle plan that integrates cybersecurity principles into FinTech projects.

| **Unit 1: Introduction to FinTech, Cybersecurity, and Data Privacy** **8 Hrs** | **CO** |
|---|---|
| Overview of FinTech: Evolution, significance, and impact on financial services, Importance of Cybersecurity and Data Privacy in FinTech: Understanding the threats, risks, and vulnerabilities, Regulatory Framework: Exploring relevant regulations and compliance standards (e.g., GDPR, PCI DSS, FFIEC) in the context of FinTech. | CO 1 |
| **Unit2: Fundamentals of Cybersecurity** **8 Hrs** | CO 2 |
| Basics of Cybersecurity: Confidentiality, integrity, availability (CIA) triad, Threat Landscape: Types of cyber threats (malware, phishing, ransomware, etc.) targeting the financial sector, Risk Management: Identifying, assessing, and mitigating cybersecurity risks in FinTech operations. | |
| **Unit 3: Secure Software Development in FinTech** **6 Hrs** | CO 3 |
| Secure Software Development Lifecycle (SDLC): Integrating security into the development process, Coding Best Practices: Writing secure code, input validation, and avoiding common vulnerabilities, DevSecOps: Embracing a culture of continuous security integration and automation. | |
| **Unit 4: Data Privacy and Protection** **6 Hrs** | CO 4 |
| Understanding Data Privacy: Personal data, sensitive financial information, and legal considerations, Data Protection Principles: Collection, processing, storage, and sharing of customer data, Privacy by Design: Implementing privacy-centric features and practices in FinTech applications. | |
| **Unit 5: Secure Financial Transactions** **7Hrs** | CO 5 |
| Payment Security: Encryption, tokenization, and secure payment gateways, Two-factor Authentication (2FA) and Multi-factor Authentication (MFA): Enhancing transaction security, Blockchain and Cryptocurrencies: Exploring the security implications of distributed ledger technology in FinTech. | |
| **Unit 6: Compliance and Incident Response** **7 Hrs** | CO 6 |
| Regulatory Compliance: Navigating compliance requirements specific to financial transactions and data privacy, Incident Response Planning: Preparing for and managing cybersecurity incidents, Ethical and Legal Aspects: Balancing innovation with ethical considerations and legal responsibilities in FinTech. | |

**Reference Books / Reading:**

1. **The Art of Invisibility: The World's Most Famous Hacker Teaches You How to Be Safe in the Age of Big Brother and Big Data"** by Kevin Mitnick
2. **Cybersecurity for Beginners"** by Raef Meeuwisse
3. **Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World"** by Bruce Schneier
4. **The Code Book: The Science of Secrecy from Ancient Egypt to Quantum Cryptography"** by Simon Singh
5. **"Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World"** by Don Tapscott and Alex Tapscott

**Text Books:**

1. **Cybersecurity: Solutions for the Indian Defence"** by Dr. K. Subramanian
2. **Cybersecurity in India: A Holistic Overview"** by Niraj Amin
3. **Cybersecurity Operations Handbook"** by Nikunj Gupta
4. **"Information Privacy in India: Law and Practice"** by Venkatraman Mahalingam
5. **FinTech: The New DNA of Financial Services"** by Pranay Gupta and Kevin D. Werbach

| **Sem III** | **2316602** | **Capstone Project** | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Practical: 30 hrs/week** | **Practical:06** | **Theory** | **CIA: --** |
| | | | **End-Sem:--** |
| | | **Pract:** | -- |
| | | **Oral:** | 50 |
| | | **Teamwork** | 50 |

**Course Objectives: The student should be able to**

1. To offer the opportunity for the students to acquire on job the skills, knowledge, attitudes, and perceptions along with the experience needed to constitute a professional identity.
2. To provide means to immerse students in actual supervised professional experiences.
3. To give an insight into the working of the real organizations
4. To get deeper understanding in specific functional areas.
5. To develop perspective about business organizations in their totality.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Student is able to construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.

**CO2:** For his / her organization of internship, the student is able to assess its Strengths, Weaknesses, Opportunities and Threats (SWOT).

**CO3:** Student is able to determine the challenges and future potential for his / her internship organization in particular and the sector in general.

**CO4:** Student is able to test the theoretical learning in practical situations by accomplishing the tasks assigned during the internship period.

**CO5:** Student is able to apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship organization.

**CO6:** Student is able to analyze the functioning of internship organization and recommend changes for improvement in processes.

**Capstone Project:** At the end of the Second Semester each student shall undertake a Capstone Project (CP) for a **minimum of 6 weeks**. For CP, 1 credit is equivalent to minimum 30-35 hours of effective work. CP shall have 6 credits. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic and organization before commencing the CP.

The student may take up a CP in his/her intended area of specialization or in any other functional area of management. **Ideally, the CP should exhibit a cross-functional orientation.** CP can be carried out in a Corporate Entity / NGO / SME / Government Undertaking / Cooperative Sector.

CP may be a research project – based on primary/secondary data or maybe an operational assignment involving working with the student on a given task/assignment/project/ etc. in an organization/industry. It is expected that the CP shall sensitize the students to the demands of the workplace.

**Each student shall maintain a CP Progress Diary detailing the work carried out and the progress achieved on a daily basis.** The student shall submit a written structured CP report based on work done during this period. The student shall submit the CP Progress Diary along with the CPP Report.

**Students shall also seek a formal evaluation of their CP from the company guide**. **The** formal evaluation by the company guide shall comment on the nature and quantum of work undertaken by the student, the effectiveness, and overall professionalism. The learning outcomes of the CP and the utility of the CP to the host organization must be specifically highlighted in the formal evaluation by the company guide. The CP evaluation sheet duly signed and stamped by the industry guide shall be included in the final CP report.

The CP report must reflect 6 weeks of work and justify the same. The CP report should be well documented and supported by –

1. **Title or Cover Page:** The title page should contain the Project Title; Student's Name; Programme; Year and Semester and the Name of the Faculty Guide
2. Institute's Certificate
3. Certificate by the Company
4. Formal feedback from the company guide
5. **Acknowledgements:** Acknowledgment of any advisory or financial assistance received in the course of work may be given. It is incomplete without the student's signature
6. **Table of Contents:** Titles and subtitles are to correspond exactly with those in the text.
7. **Abstract:** A good" Abstract" should be straight to the point; not too descriptive but fully informative. The first paragraph should state what was accomplished with regard to the objectives. The abstract does not have to be an entire summary of the project, but rather a concise summary of the scope and results of the project. It should not exceed more than 1000 words.

8. Organization profile
9. Outline of the problem/task undertaken
10. Research methodology & data analysis (in case of research projects only)
11. Relevant activity charts, tables, graphs, diagrams, AV material, etc.
12. Learning of the student through the project
13. Contribution to the host organization
14. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.)

The completion of the CP shall be certified by the respective Faculty Guide & approved by the Director of the Institute. The external organization (Corporate / NGO/ SME/ Government Entity/ Cooperative/ etc.) shall also certify the CP work.

The students shall submit a spiral-bound copy of the CP report. The Panel shall comprise evaluators appointed by the Director of the Institute / Head of Department (for MBA departments in engineering colleges). Institutes are encouraged to involve senior alumni, industry experts, and recruiters to conduct the internal viva-voce. The internal viva-voce panel shall provide a detailed assessment of the CP report and suggest changes required, if any.

After the internal viva-voce, the student shall finalize the CP report by incorporating all the suggestions and recommendations of the internal viva-voce panel. The internal guide shall then issue the Institute's Certificate to the student.

The student shall submit TWO hard copies & one soft copies (CD) of the project report. One hard copy of the CP report is to be returned to the student by the Institute after the External Viva-Voce. In the interest of environmental considerations, students are encouraged to print their project reports on both faces of the paper. Spiral-bound copies may be accepted.

There shall be an external viva-voce for the CP for 50 marks. The external viva-voce shall be conducted after the theory exam of Semester III.

The Internal & External viva-voce shall evaluate the CP based on:

1. Adequacy of work undertaken by the student
2. Application of concepts learned in Sem I and II
3. Understanding of the organization and business environment
4. Analytical capabilities
5. Technical Writing & Documentation Skills
6. Outcome of the project – sense of purpose
7. Utility of the project to the organization
8. Variety and relevance of learning experience

**Examples**
**For research article**

- Voravuthikunchai SP, Lortheeranuwat A, Ninrprom T, Popaya W, Pongpaichit S, Supawita T. (2002) Antibacterial activity of Thai medicinal plants against

enterohaemorrhagic Escherichia coli O157: H7. Clin Microbiol Infect, 8(suppl 1): 116–117.

**For book**

- Kowalski,M.(1976) Transduction of effectiveness in Rhizobium meliloti. SYMBIOTIC NITROGEN FIXATION PLANTS (editor P.S. Nutman IBP), **7**: 63-67

**The Layout Guidelines for the Internship File & Internship Report**

- A4 size Paper
- Font: Arial (10 points) or Times New Roman (12 points)
- Line spacing: 1.5
- Top and bottom margins: 1 inch/ 2.5 cm; left and right margins: 1.25 inches/ 3 cm

| | | | |
|---|---|---|---|
| **SEM-III** | **24XXXX** | Regulation and Compliance in Fin-Tech Innovation. | |
| **Teaching Scheme: L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

17. Recognize the critical importance of cybersecurity and data privacy in the context of FinTech.
18. Identify different types of cyber threats and their potential impact on FinTech operations.
19. Gain insights into the Secure Software Development Lifecycle (SDLC) and its application in FinTech projects.
20. Explore techniques to implement privacy-focused features and practices in the design of FinTech products.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO15: Remembering:** Recall the historical evolution and significance of FinTech in the financial services sector.

**CO16: Understanding:** Explain the regulatory frameworks and compliance standards relevant to cybersecurity and data privacy in FinTech.

**CO17: Applying:**. Implement privacy-by-design principles to develop FinTech applications that adhere to data protection standards.

**CO18: Analyzing:** Analyze the potential impact of different cyber threats on the availability, integrity, and confidentiality of financial transactions.

**CO19: Evaluating**: Evaluate the effectiveness of various data protection methods in safeguarding customer information in FinTech applications. .

**CO20: Creating:** Design a secure software development lifecycle plan that integrates cybersecurity principles into FinTech projects.

| Unit 1: Introduction to FinTech and Regulatory Landscape 8Hrs | CO |
|---|---|
| Overview of FinTech and its impact on the financial industry, Evolution of financial regulations and their challenges in the digital age, Key regulatory bodies and frameworks (e.g., SEC, CFTC, GDPR, PSD2), Balancing innovation and consumer protection through regulation | CO 1 |
| **Unit2: Understanding Compliance Requirements 8Hrs** | |
| Types of compliance requirements in FinTech (e.g., AML, KYC, data privacy), Regulatory sandboxes and their role in testing innovative solutions, Case studies on compliance failures and their consequences, Importance of risk assessment and mitigation strategies | CO 2 |
| **Unit 3: Anti-Money Laundering (AML) and Know Your Customer (KYC) 6Hrs** | |
| Deep dive into AML and KYC regulations, Role of technology in automating AML and KYC processes, Customer due diligence and risk profiling, Implementing effective transaction monitoring systems | CO 3 |
| **Unit 4: Data Privacy and Cybersecurity in FinTech 6Hrs** | |
| Exploring data protection regulations (e.g., GDPR, CCPA), Safeguarding customer data and preventing data breaches, Cybersecurity best practices and incident response planning, Ethical considerations in handling sensitive financial information | CO 4 |
| **Unit 5Regulatory Challenges in Emerging Technologies 7Hrs** | |
| Blockchain and cryptocurrencies: navigating legal and regulatory uncertainties, Peer-to-peer lending and crowdfunding regulations, Robo-advisors and algorithmic trading compliance, RegTech solutions for enhancing regulatory compliance | CO 5 |
| **Unit 6: Future Trends and Global Perspectives 7Hrs** | |
| Regulatory trends in FinTech innovation across different countries, Impact of AI and machine learning on regulatory compliance, Exploring decentralized finance (DeFi) and its regulatory implications,Forecasting the future of FinTech regulations and their potential evolution | CO 6 |

**Reference Books / Reading:**

1. **FinTech and the Remaking of Financial Institutions"** by Anjana Susarla, Jerry L. Parwada, and Edison Tse
2. **RegTech Revolution: Bringing Compliance to Your Analytics and Reporting"** by Bryan Zhang and Inga Barry
3. **Financial Services Law and Compliance in Australia"** by Vicky Priskich and Christopher Arup
4. **Regulating Financial Innovation: A Comparative Study of FinTech Regulation"** by Dirk A. Zetzsche, Ross P. Buckley, and Douglas W. Arner
5. **Data Protection and Privacy: Jurisdictional Comparisons"** by Monika Kuschewsky and Magalie D. Lafrenière
6. **Digital Financial Services: Regulatory and Policy Challenges"** by D. Murali and Ravi Anshuman

**Text Books:**

6. **"FinTech: The New DNA of Financial Services"** by Pratap Subramanyam
7. **RegTech in Financial Services: Technology Solutions for Compliance, Risk Management, and Audit"** by D. Murali
8. **Banking Regulation and Regulatory Governance: Perspectives for Practicing Professionals"** by Rupa Rege Nitsure
9. **Cyberlaw: The Indian Perspective"** by Farooq Ahmad
10. **Financial Services Regulation in India"** by Rupa Rege Nitsure
11. **Digital Banking and Payment Systems: Legal and Regulatory Challenges"** by Ashish Das

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|---|---|---|---|
| **SEM- III** | | Advanced Financial Analytics and Modeling | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 3hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To understand the fundamental concepts of financial analytics and its role in decision-making processes.
2. To comprehend the characteristics of time series data in the context of financial analysis.
3. To Calculate and interpret various portfolio performance metrics, such as the Sharpe Ratio and Treynor Ratio.
4. To Implement regression and classification techniques for financial predictions.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

CO1: Apply advanced financial analytics techniques to real-world financial datasets.

CO2: Construct and manage portfolios using modern portfolio theory and risk analytics.

CO3: Price options and analyze derivatives using various models and methods.

CO4: Model and manage credit risk in different financial contexts.

CO5: Utilize machine learning algorithms for financial predictions and analysis.

CO6: Critically evaluate and make ethical decisions related to financial analytics.

| **Unit 1: Foundations of Financial Analytics** **7 Hrs** | **CO** |
|---|---|
| Introduction to Financial Analytics and Modeling, Role of Analytics in Decision-Making, Types of Financial Data and Sources, Exploratory Data Analysis (EDA) in Finance, Data Preprocessing and Cleaning Techniques, Statistical Concepts for Financial Analytics | CO1 |
| **Unit 2: Time Series Analysis and Forecasting** **7 Hrs** | CO2 |
| Understanding Time Series Data in Finance, Stationarity and Differencing, ARIMA (AutoRegressive Integrated Moving Average) Models, Exponential Smoothing Methods, Forecast Evaluation and Accuracy Metrics, Volatility Modeling: GARCH (Generalized Autoregressive Conditional Heteroskedasticity) | |
| **Unit 3: Portfolio Management and Risk Analytics** **7 Hrs** | CO3 |
| Modern Portfolio Theory (MPT) and Capital Asset Pricing Model (CAPM), Portfolio Construction and Diversification, Risk-Return Tradeoff and Efficient Frontier, Value at Risk (VaR) and Conditional VaR, Portfolio Performance Measurement (Sharpe Ratio, Treynor Ratio, etc.), Stress Testing and Scenario Analysis | |
| **Unit 4: Option Pricing and Derivative Analytics** **7 Hrs** | CO4 |
| Basics of Options and Option Payoffs, Binomial and Black-Scholes Option Pricing Models, Implied Volatility and the Greeks (Delta, Gamma, Theta, Vega, Rho), Option Strategies and Hedging Techniques, Monte Carlo Simulation for Option Pricing, Exotic Options and Their Analytics | |
| **Unit 5: Credit Risk Modeling and Fixed Income Analytics** **7 Hrs** | CO5 |
| Credit Scoring and Credit Rating Models, Default Probability Estimation, Credit Migration and Transition Matrices, Structural vs. Reduced-Form Models, Bond Pricing and Yield Curve Analysis, Duration and Convexity for Fixed Income Portfolios | |
| **Unit 6: Machine Learning in Financial Analytics** **7 Hrs** | CO6 |
| Introduction to Machine Learning in Finance, Regression and Classification for Financial Predictions, Ensemble Methods: Random Forests, Gradient Boosting, Neural Networks for Financial Time Series Analysis, Unsupervised Learning: Clustering and Anomaly Detection, Ethical Considerations and Challenges in Financial Machine Learning | |

**Reference Books / Reading:**

6. **"Options, Futures, and Other Derivatives"** by John C. Hull
7. **"Financial Analytics with R"** by Mark Bennett and Dirk Hugen
8. **"Fixed Income Securities: Valuation, Risk, and Risk Management"** by Pietro Veronesi
9. **"Credit Risk Analytics: Measurement Techniques, Applications, and Examples in SAS"** by Bart Baesens, Daniel Roesch, and Harald Scheule

**Text Books:**

5. **"Python for Data Analysis"** by Wes McKinney
6. **"Time Series Analysis and Its Applications: With R Examples"** by Robert H. Shumway and David S. Stoffer

7. **"Fixed Income Securities: Valuation, Risk, and Risk Management"** by Pietro Veronesi
8. **"Advances in Financial Machine Learning"** by Marcos Lopez de Prado
9. **"Machine Learning for Algorithmic Trading"** by Stefan Jansen

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|---|---|---|---|
| **SEM- III** | **24XXXX** | Robo-Advisors and Automated Wealth Management | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To Introduce students to the concepts of robo-advisors and automated wealth management as disruptive innovations in the financial sector.
2. To Analyze various investment strategies employed by robo-advisors, including risk assessment, asset allocation, tax optimization, and their impact on portfolio performance.
3. To Familiarize students with the technological components that power robo-advisory platforms and their underlying algorithms.
4. To Explore how robo-advisors are reshaping the financial industry, and enable students to identify opportunities and challenges for traditional financial institutions.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

CO1: Define robo-advisors and explain their significance in the context of financial technology and wealth management.

CO2: Compare and contrast different investment strategies employed by robo-advisors, considering factors such as risk tolerance and market conditions.

CO3: Examine how robo-advisors are expanding beyond basic investing to offer additional financial services.

CO4: Formulate strategic recommendations for traditional financial institutions to adapt to the changing landscape of automated wealth management services.

CO5: Analyze the regulatory challenges and legal frameworks that affect the operation of robo-advisory services.

| **Unit 1: Introduction to Robo-Advisors and Wealth Management Automation** **7 Hrs** | **CO** |
|---|---|
| Understanding the evolution of financial technology (FinTech) and its impact on wealth management, Defining robo-advisors: concepts, features, and benefits, Exploring the role of automation in wealth management and its advantages over traditional methods, Analyzing the regulatory and compliance aspects associated with robo-advisory platforms, Case studies: Examining successful robo-advisor models and their impact on the financial industry. | CO1 |
| **Unit 2: Robo-Advisor Operations and Investment Strategies** **7 Hrs** | CO2 |
| Robo-advisor ecosystem: Exploring the technology and algorithms that power robo-advisory platforms, Types of investment strategies employed by robo-advisors: passive vs. active, risk assessment, asset allocation, tax optimization, and more, Data-driven decision-making: Role of data analytics and artificial intelligence in shaping investment choices, Developing a robo-advisor: Understanding the technical components, software development, and user experience design, Case studies: Analyzing the investment approaches of different robo-advisors and their performance. | |
| **Unit 3: Advancements in Robo-Advisory Services** **7 Hrs** | CO3<br>CO5 |
| Beyond basic investing: Exploring how robo-advisors are expanding into other financial services (retirement planning, estate management, etc.)., Hybrid models: Blending human expertise with automated technology in wealth management, Behavioral finance in robo-advisory: Nudging investor behavior, managing emotions, and ensuring long-term commitment, Scalability and customization: How robo-advisors cater to diverse client needs and manage a growing user base, Ethical considerations: Addressing potential biases, transparency, and accountability in automated wealth management. | |
| **Unit 4: Challenges, Future Trends, and Industry Outlook** **7 Hrs** | CO4<br>CO6 |
| Critique of robo-advisory platforms: Analyzing limitations, risks, and potential drawbacks, Regulatory hurdles and legal frameworks: Understanding the compliance landscape and potential changes, Cybersecurity and data privacy: Exploring the challenges of handling sensitive financial information in an automated environment, Future of robo-advisors: Predicting trends, emerging technologies, and potential disruptions in the wealth management industry, Strategic implications for financial institutions: How traditional banks and financial firms can adapt and integrate automated wealth management services, Student projects: Research and presentations on cutting-edge developments in robo-advisory services. | |

**Reference Books / Reading:**

10. "Digital Wealth: Robo-Advisors, Social Media, and the Democratization of Finance" by Chris Geczy and Vasant Dhar
11. "The Fintech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries" by Susanne Chishti and Janos Barberis
12. "The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail" by Clayton Christensen
13. "A Wealth of Common Sense: Why Simplicity Trumps Complexity in Any Investment Plan" by Ben Carlson

**Text Books:**

10. "The Little Book of Common Sense Investing: The Only Way to Guarantee Your Fair Share of Stock Market Returns" by John C. Bogle
11. "Quantitative Investment Analysis" by Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle
12. "Adaptive Markets: Financial Evolution at the Speed of Thought" by Andrew W. Lo
13. "Robo-Advisors: Digital Disruption in Asset and Wealth Management" by Pascal Bouvier and Thomas Puschmann
14. "The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services" by Henri Arslanian

| | | | |
|---|---|---|---|
| **SEM-III** | **24xxxxxx** | Digital Currencies and Central Bank Digital Currencies (CBDCs) | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Understand the fundamental concepts of digital currencies and their technological underpinnings.
2. Analyze the implications of cryptocurrencies and blockchain on financial systems and industries.
3. Examine the motivations and potential benefits of Central Bank Digital Currencies (CBDCs) for economies and monetary policy.
4. Evaluate the challenges and regulatory considerations surrounding the adoption of digital currencies, including issues of security, privacy, and financial integrity.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

1. CO1: Demonstrate proficiency in explaining the key features and differences between various types of digital currencies.
2. CO2: Apply blockchain concepts to assess the potential disruptions and opportunities within financial sectors.
3. CO3: Evaluate the potential impact of CBDCs on monetary policy, financial inclusion, and cross-border transactions.
4. CO4: Formulate informed strategies for addressing regulatory and security challenges in the implementation of digital currencies and CBDCs.

| **Unit 1: Introduction to Digital Currencies.** **6 Hrs** | **CO** |
|---|---|
| Overview of digital currencies, their evolution, and the underlying technologies, history of money, characteristics of digital currencies, cryptography basics, and the role of block chain technology. Students will also examine the differences between crypto currencies, stable coins, and CBDCs, along with their potential impact on financial systems and economies. | CO1 |
| **Unit 2 Cryptocurrencies and Blockchain Technology** **6 Hrs** | CO2 |
| cryptocurrencies and blockchain technology, cryptocurrencies like Bitcoin and Ethereum, including mining, consensus mechanisms, and transaction validation. Discussions on smart contracts, decentralized applications (DApps), and tokenization, challenges and opportunities associated with blockchain's security, scalability, and regulatory aspects. | |
| **Unit 3: Central Bank Digital Currencies (CBDCs) Framework** **6 Hrs** | CO3 |
| Central Bank Digital Currencies (CBDCs) as a novel form of digital currency issued by central banks, CBDC development, the potential benefits such as improved payment systems, financial inclusion, and reduced operational costs. various CBDC models, implementation strategies, and the regulatory considerations that central banks and governments need to address while adopting CBDCs. | |
| **Unit 4: Implications and Future of Digital Currencies.** **6 Hrs** | CO4 |
| implications and future prospects of digital currencies, impact of digital currencies on monetary policy, financial stability, and privacy, potential disruption of traditional financial intermediaries, cross-border payments, and global financial systems. Ethical, legal, and regulatory challenges related to anti-money laundering (AML) and combating the financing of terrorism (CFT). | |

**Text Books:**

1. Nishith Desai - "Blockchain & Cryptocurrency: International Legal and Regulatory Challenges"
2. R. Gandhi - "India's Payment Systems: The Digital Road to Financial Inclusion"
3. Moin Qazi - "Village Diary of a Heretic Banker: Lessons from a Rural Bank in India"

J.P. Koning - "Indian Currency and Finance

**Reference Books:**

1. **Central Bank Digital Currency: A Comparative Study"** by Dirk A. Zetzsche, Ross P. Buckley, Douglas W. Arner

2. **"Digital is the Cash: A No-nonsense Guide to Bitcoin and Cryptocurrencies"** by Nathaniel Popper
3. **CBDCs and Monetary Policy"** by Simon Johnson, Markus K. Brunnermeier, Harold James, Jean-Pierre Landau.

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MAHIRAVANI, TRIMBAK ROAD, TAL & DIST: NASHIK-422213, MAHARASHTRA,INDIA

| SEM III | 24xxxxxx | FinTech and Financial Inclusion | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. FinTech's role in financial inclusion is important for underserved populations.
2. Familiarize themselves with digital payment systems and mobile banking to expand financial access.
3. P2P lending democratizes access to credit, microfinance helps financial inclusion.
4. Blockchain technology can facilitate secure, transparent, cost-effective financial services for unbanked populations.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

CO1 : Ethical and regulatory considerations to leverage FinTech for financial access and inclusion.

CO2 Evaluate digital payments and mobile banking solutions to identify opportunities for financial inclusion.

CO3 P2P lending facilitates credit access for underserved individuals and small businesses.

CO4 Blockchain and cryptocurrencies can help promote financial inclusion through transparency and security.

| **Unit 1: Introduction to FinTech and Financial Inclusion** **7 Hrs** | **CO** |
|---|---|
| Defining FinTech: Understanding the scope and impact of financial technology, Importance of Financial Inclusion: Exploring the significance of access to financial services for all Technological Enablers: Overview of digital platforms, mobile banking, and payment systems Regulatory Landscape: Balancing innovation with consumer protection and financial stability. | CO1 |
| **Unit 2 : Digital Payments and Mobile Banking** **7 Hrs** | CO2 |
| Digital Payment Ecosystem: Analysis of e-wallets, UPI, and contactless payments, Mobile Banking Solutions: Mobile apps, SMS banking, and USSD codes, Case Studies: Examining successful mobile banking and digital payment models. | |
| **Unit 3: Peer-to-Peer Lending and Microfinance** **7 Hrs** | CO3 |
| Peer-to-Peer (P2P) Lending: Exploring online lending platforms and their role in credit access Microfinance Revolution: Impact on rural and underprivileged communities, Challenges and Risks: Addressing concerns related to data privacy, creditworthiness, and regulations. | |
| **Unit 4: Blockchain and Cryptocurrencies for Inclusion** **7 Hrs** | CO4 |
| Block chain's Role: Enhancing transparency and security in financial transactions, Crypto currencies for the Unbanked: Examining potential benefits and challenges, Financial Literacy and Consumer Empowerment: Educating users about digital financial tools. | |

**Reference Books**

1. FinTech Future: The Digital DNA of Finance", Author: Sanjay Phadke, Publication House: Notion Press
2. "Digital Finance: Understanding the New Financial Ecosystem", Author: Shashank Shekhar, Publication House: Wiley
3. "Introduction to Financial Technology", Author: Roy S. Freedman, Publication House: Academic Press
4. Digital Banking: Theory and Practice", Authors: Shanmuganathan Vasanthakumar, R. Gayathri Devi, S. Sampath, Publication House: PHI Learning
5. "Microfinance India: The Social Performance Report", Authors: N. Srinivasan, Gayathri Sampath, Publication House: Sage Publications India

**Texte Books**

1. FinTech: The New DNA of Financial Services", Authors: Pranay Gupta, Amit Kapur, Publication House: Bloomsbury Business India
2. "Digital Payments: Concepts, Methods, and Technologies", Author: Madan Mohan Agarwal, Publication House: CRC Press
3. "Microfinance India: State of the Sector Report 2017", Author: N. Srinivasan, Publication House: Sage Publications India

| **Semester-III** | **24xxxx** | **Crowdsourcing and Open Innovation in FinTech** | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Explore new ways in which traditional firms and start-ups can be more innovative by harnessing the power of collective intelligence enabled by digital technologies.
2. Analyze digital innovation and crowdsourcing and evaluate risks and benefits of such practices.
3. Focus on qualitative analysis of cases, hands-on exercises, meeting of industry leaders, and experiential projects.
4. Focus on digital technologies that enable knowledge work, creativity, information aggregation, and not just exchange of goods.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO21:** Explore the concept of digital innovation and Collective Intelligence
**CO22:** Build an understanding of Organizing Work on Digital Platforms**.**
**CO23:** Understand the concept of Governing Digital Platforms
**CO24:** Apply the knowledge of leading organizational transformation for digital era.

| **Unit 1: Introduction** **7 Hrs** | **CO** |
|---|---|
| Nature of digital innovation. Collective Intelligence, From firms to platforms<br>Future of Work, Future of occupations, AI: Decision Automation, Algorithmic ethics | CO1 |
| **Unit 2: Organizing Work on Digital Platforms** **7 Hrs** | CO2 |
| Wisdom-of-the-crowds' platforms, User-centered crowdsourcing, Online labor markets, Expert-centered crowdsourcing, Collaborative online communities, Crowdsourcing and crowd funding, Platforms for physical goods | |
| **Unit 3: Governing Digital Platforms** **7 Hrs** | CO3<br>CO5 |
| Scaling digital platforms, Ecosystem governance, Community governance | |
| **Unit 4: Leading Digital Transformation** **7 Hrs** | CO4<br>CO6 |
| Nature of digital disruption, Leading organizational transformation for digital era | |

**Reference Books / Reading:**

1. "Free Innovation" by Eric von Hippel, 2017
2. "Crowdstorm: The Future of Innovation, Ideas, and Problem Solving," S. Abrahamson et al., 2013

**Text Books:**

1. "Open Innovation: The New Imperative for Creating and Profiting from Technology," Henry Chesbrough, 2003
2. "Sharing Economy" by Arun Sundararajan, 2016

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|---|---|---|---|
| **Semester-III** | **24xxXX** | **Behavioral Finance and Digital Consumer Behavior** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

5. Understand the role of human behaviour in financial decision making.
6. Explore concepts of biases, Equity Premium Puzzles and arbitrage opportunities.
7. Recognize the limitations of traditional finance theories in explaining real-world financial decisions.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO25:** Understand some psychological biases which lead to various anomalies

**CO26:** Build an understanding of the various effects like endowment, disposition etc.

**CO27:** Understand investors' behavior in secondary markets

**CO28:** Apply the concept of Aggregate Stock Market, closed end funds and co-movement, Corporate Finance

| **Unit 1: Introduction to Behavioral Finance** **7 Hrs** | **CO** |
|---|---|
| Introduction to Behavioral Finance-Overview, History of Behavioral Finance; From standard finance to behavioral finance- Are financial markets efficient?, Limits to arbitrage- Fundamental Risk, Noise Trader Risk, Implementation cost, evidence of limits to arbitrage | CO1 |
| **Unit 2: Cognitive biases, beliefs and heuristics-Preferences** **7 Hrs** | |
| Cognitive biases, beliefs and heuristics-Preferences: Prospect Theory, Ambiguity aversion, Loss aversion, Framing, Non-consequentialism: Disjunction Effect, Self-deception, Neuro- finance ; Mental Accounting, Self-control, Regret avoidance and Cognitive dissonance, Representativeness and Availability, Anchoring and Belief perseverance, Overconfidence, Optimism and wishful thinking, Overreaction and Conservatism, Self- attribution, Regency bias | CO2 |
| **Unit 3: Effect** **7 Hrs** | |
| Endowment effect, Disposition effect, reference price effect, Herd Behavior, hindsight, winners' curse, cognitive dissonance, familiarity bias, status quo bias, law of small numbers, information overload | CO3<br>CO5 |
| **Unit 4: Application** **7 Hrs** | |
| Application-The Aggregate Stock Market: Equity Premium Puzzle-prospect theory, loss aversion; The Volatility Puzzle-beliefs, References:; The Cross Section of Average returns- size premium, long term reversals, predictive power of scaled price ratios, momentum, event studies<br>Application-The closed end funds and co movement: investor behavior (saving and investment)- insufficient diversification, naïve diversification, excessive trading, the selling decision, the buying decision.<br>Application-Corporate Finance: Security Issuance, Capital structure and Investment, Dividends, Managerial Irrationality. | CO4<br>CO6 |

**Reference Books / Reading:**

1. Kahneman, Daniel & Tversky, Amos. (2000). "Choices, Values and Frames". Cambridge University Press
2. Thaler, Richard & Barberis, Nicholas. (2002) A Survey of Behavioral Finance

**Text Books:**

1. Forbes, William, "Behavioural Finance", Student ed, Wiley Publication
2. Shleifer, Andrei. "Inefficient Markets-An Introduction to Behavioral Finance". Oxford University Press

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|---|---|---|---|
| **Semester-III** | **24XXXX** | **Financial Regulation Technology** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

8. Explore Financial Technology's efficiency evaluation, and different aspects of their integration.
9. Understand to generate, maintain, and develop Financial Technology in organizations.
10. Focus on specific Financial Technology risks for traditional financial organizations.
11. Focus on substance and different models of Financial Technology functioning.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO29:** Explore the role of Financial Technology in a company's functioning.
**CO30:** Explore the concept of Cryptocurrencies.
**CO31:** Explore various basic models of Financial Technology.
**CO32:** Understand Prospects for Using Innovative Financial Technologies.

| **Unit 1: Nature of Financial Technology** **7 Hrs** | **CO** |
|---|---|
| Nature of Financial Technology. Predecessors of Financial Technology. Stages of Evolution of Financial Technology. Emergence of Financial Technology Different types of Financial Technology. Advantages and risks of Financial Technology for main stakeholders, Technological Basis of Financial Technology: Authentication. Virtual cards. P2P-technologies. Block chain and smart contracts. Robotization and automation. | CO1 |
| **Unit 2: Cryptocurrencies** **7 Hrs** | CO2 |
| Nature of crypto currencies. Mining. Forging. Legal regulation. Local crypto currencies. Initial Coin Offering (ICO). Regulation of ICO, Financial Technology Market Players Main types of Financial Technology market players. Non-financial institutions entering financial market. Business strategies of different types of Financial Technology market players. | |
| **Unit 3: Financial Technology: Traditional & non-Traditional Institutions** **7 Hrs** | CO3 CO5 |
| Risks of Financial Technology for traditional financial institutions. Strategies of adaptation of traditional institutions to Financial Technology h. Models of coexistence of traditional and non-traditional financial institutions. Legal regulation and self-regulation of Financial Technology. | |
| **Unit 4: Prospects for Using Innovative Financial Technologies in Different Countries 7 Hrs** | CO4 CO6 |
| Local models of evolution of financial markets. Local models of regulation of Financial Technologies. Financial Technology: global and local dimensions. | |

**Reference Books / Reading:**

1. Chen, L. (2016). From Fintech to Finlife: the case of Fintech Development in China. China Economic Journal, 9(3), 225–239.
2. Maier, E. (2016). Supply and demand on crowdlending platforms: connecting small and medium-sized enterprise borrowers and consumer investors. Journal of Retailing and Consumer Services, (C), 143.

**Text Books:**

**1.** Tasca, P., Aste, T., Pelizzon, L., & Perony, N. (2016). Banking Beyond Banks and Money : A Guide to Banking Services in the Twenty-First Century.

## Semester – IV

| Sr. No. | Course Type | Course Code | Course Name | Teaching Scheme (Hrs./Week) | | | | Examination Scheme | | | | Total Marks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | L | T | P | C | Formative Assessment CIA | | Summative Assessment ESE | | |
| | | | | | | | | Course | Lab | Course | Lab | |
| 1 | IC (GC) | 2316604 | FinTech Project Management and Implementation | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 3 | PC (SC) | 2316234/44/54/64 74/84/94 | Program Core-6 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 4 | PC (SC) | 2316235/45/55/65/75/ 85/95 | Program Core-7 | 3 | - | -- | 3 | 50 | -- | 50 | -- | 100 |
| 5 | PE (SE) | 2316236/46/56/66/76/8 6/96 A to B | Program Elective-4 | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 6 | PE (SE) | 2316236/46/56/66/76/8 6/96 C to D | Program Elective-5 | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 7 | IC | 2300602 | Indian Society and Culture | 2 | - | -- | 2 | 25 | -- | 50 | -- | 75 |
| 8 | SDC | Skill | As per Specilizations | 1 | - | - | 1 | 50 | -- | -- | -- | 50 |
| 9 | IC | | Dissertation | - | - | | 4 | - | - | - | 50 | 50 |
| TOTAL | | | | 13 | - | -- | 17 | 200 | -- | 250 | 50 | 500 |

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| **Program Core-6**<br>FinTech Innovation Lab | **Program Core-7**<br>FinTech Industry Trends and Futures |
| **Program Elective-4**<br>PE 4.1 FinTech Entrepreneurship and Venture Capital<br>PE 4.2 Digital Identity and Biometrics in | **Program Elective-5**<br>PE 5.1 FinTech Regulation and Compliance<br>PE 5.2 Digital Ethics and Responsible FinTech<br>PE 5.3 Emerging Technologies in Finance |

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| Finance<br>PE 4.3 Advanced Topics in Blockchain Applications | |
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| | **Skills : (As per specialization)**<br><br>**Marketing :** Client Symphony: through Relationship Mastery<br>**Finance :** Unlocking the Secrets to Wealth Accumulation<br>**HR :** Cultivating Brilliance: Inspiring and Managing Human Capital<br>**OSCM:** Lean Operations Management<br>**BA :** Social Media, Web & Text Analytics |

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| **SEM-III** | **2316604** | FinTech Project Management and Implementation | |
| **Teaching Scheme:L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory:3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Understand the concept of FinTech and its transformative impact on the financial industry.
2. Identify stakeholders and articulate their roles and expectations.
3. Apply work breakdown structure (WBS) techniques to break down project tasks into manageable components.
4. Evaluate and select appropriate technology solutions for FinTech projects.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO33: Remembering:** Recall the key concepts and terminology related to FinTech and project management.

**CO34: Understanding:** Explain the significance of project management in the FinTech industry.

**CO35: Applying:** Develop a project plan for a hypothetical FinTech initiative, including task sequencing and resource allocation

**CO36: Analyzing:** Analyze the potential impact of technology integration on a FinTech project's overall success.

**CO37: Evaluating**: Evaluate the effectiveness of quality assurance processes in ensuring the reliability of a FinTech project.

**CO38: Creating:** Design a comprehensive project closure plan that includes documentation, training materials, and knowledge transfer strategies for a FinTech project.

| **Unit 1: Introduction to FinTech Project Management** **8Hrs** | **CO** |
|---|---|
| Overview of FinTech and its significance in the financial industry, Understanding project management in the context of FinTech, Key differences between traditional project management and FinTech project management, Exploring the project life cycle and its phases, Role of project managers in FinTech projects. | CO 1 |
| **Unit2: Defining FinTech Project Scope and Objectives** **8Hrs** | CO 2 |
| Importance of clear project scope and objectives in FinTech projects, Identifying stakeholders and their roles, Gathering requirements and understanding user needs, Defining scope boundaries and managing scope changes, Setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) project objectives. | |
| **Unit 3: Data Privacy and Security** **6Hrs** | CO 3 |
| Creating a comprehensive project plan for FinTech projects, Work breakdown structure (WBS) and task sequencing, Resource identification, allocation, and management, Time and cost estimation techniques in FinTech projects, Risk assessment and mitigation strategies. | |
| **Unit 4: Technology Integration and Vendor Management** **6Hrs** | CO 4 |
| Evaluating technology solutions for FinTech projects, Selecting appropriate vendors and partners, Negotiating contracts and service level agreements, Ensuring smooth technology integration and interoperability, Managing dependencies and third-party contributions. | |
| **Unit 5: Agile Methodology in FinTech Project Management** **7Hrs** | CO 5 |
| Introduction to Agile principles and methodologies, Scrum, Kanban, and Lean approaches in FinTech projects, Iterative development and continuous improvement, Agile roles and responsibilities in a FinTech team, Adapting Agile practices to FinTech-specific challenges. | |
| **Unit 6: Implementation, Testing, and Quality Assurance** **7Hrs** | CO 6 |
| Strategies for successful project implementation in FinTech, User acceptance testing (UAT) and quality assurance processes, Addressing cybersecurity and data privacy concerns, Monitoring and measuring project performance and success, Documentation, | |

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| training, and knowledge transfer in FinTech project closure. | |

**Reference Books / Reading:**

1. "FinTech: The Technology Driving Disruption in the Financial Services Industry" by Robin Trehan
2. "Project Management for the Unofficial Project Manager" by Kory Kogon, Suzette Blakemore, and James Wood
3. A Guide to the Project Management Body of Knowledge (PMBOK® Guide)" by Project Management Institute (PMI)
4. "Business Analysis and Leadership: Influencing Change" by Penny Pullan
5. Project Management: A Systems Approach to Planning, Scheduling, and Controlling" by Harold Kerzner
6. "Resource Management for Individuals and Families" by Elizabeth B. Goldsmith
7. Information Technology Project Management" by Kathy Schwalbe
8. "Vendor Management" by Evan Bailyn
9. Agile Estimating and Planning" by Mike Cohn
10. "Scrum: The Art of Doing Twice the Work in Half the Time" by Jeff Sutherland
11. The Phoenix Project: A Novel About IT, DevOps, and Helping Your Business Win" by Gene Kim, Kevin Behr, and George Spafford
12. "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses" by Eric Ries

**Text Books:**

1. FinTech: The Technology Driving Disruption in the Financial Services Industry" by Robin Trehan
2. "Project Management for the Unofficial Project Manager" by Kory Kogon, Suzette Blakemore, and James Wood
3. "Business Analysis for Practitioners: A Practice Guide" by Project Management Institute (PMI)
4. "Business Analysis and Leadership: Influencing Change" by Penny Pullan
5. "Project Management: A Systems Approach to Planning, Scheduling, and Controlling" by Harold Kerzner
6. "Resource Management for Individuals and Families" by Elizabeth B. Goldsmith
7. Information Technology Project Management" by Kathy Schwalbe
8. "Vendor Management" by Evan Bailyn

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| **SEN-IV** | **xxxxxxx** | FinTech Innovation Lab | |
| **Teaching Scheme:L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

5. Understand the definition and scope of FinTech and its impact on the financial industry.
6. Explain the concept of digital payments and their significance in modern finance.
7. Evaluate the role of cryptocurrencies and blockchain technology in revolutionizing payments.
8. Define blockchain technology and comprehend its core features, including decentralization and immutability.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO39: Remembering:** Recall key historical milestones in the development of FinTech and its impact on the financial industry.

**CO40: Understanding:** Explain the security features and advantages of using contactless payments in financial transactions.

**CO41: Applying:** Create a simple smart contract using a blockchain platform and explain its use case.

**CO42: Analyzing:** Analyze the ethical considerations of using AI algorithms for credit scoring and investment recommendations.

**CO43: Evaluating**: Evaluate the potential advantages and limitations of robo-advisory services in comparison to traditional wealth management.

**CO44: Creating:** Create a comprehensive pitch presentation for a FinTech startup, incorporating elements of problem statement, solution, market analysis, and financial projections.

| **Unit 1: Introduction to FinTech and Industry Overview** **8Hrs** | **CO** |
|---|---|
| . Understanding FinTech: Definition and Scope, Historical Evolution of FinTech, Key Drivers of FinTech Innovation, Current Landscape and Trends in FinTech, Regulatory and Compliance Frameworks in FinTech. | CO 1 |
| **Unit2: Digital Payments and Transaction Technologies** **8Hrs** | CO 2 |
| Digital Payment Ecosystem: Overview and Components, Mobile Wallets and Payment Apps, Peer-to-Peer Payment Systems, Contactless Payments and NFC Technology, Cryptocurrencies and their Role in Payments | |
| **Unit 3: Blockchain Technology and Cryptocurrencies** **6Hrs** | CO 3 |
| Fundamentals of Blockchain: Decentralization and Consensus, Use Cases of Blockchain beyond Cryptocurrencies, Cryptocurrencies: Bitcoin, Ethereum, and Altcoins, Smart Contracts and their Applications, Regulatory Challenges and Future of Blockchain | |
| **Unit 4: Data Analytics and AI in Financial Services** **6Hrs** | CO 4 |
| Role of Data Analytics in Financial Decision-Making, Machine Learning in Credit Scoring and Risk Assessment, Algorithmic Trading and Quantitative Analysis, AI-Powered Customer Service and Chatbots, Ethical Considerations in AI and Data Usage | |
| **Unit 5: WealthTech and Robo-Advisors** **7Hrs** | CO 5 |
| Evolution of Wealth Management: Traditional to Digital, Robo-Advisors: Functionality and Benefits, Creating Diversified Investment Portfolios with Technology, Human vs. Robo-Advisor: Finding the Right Balance, Case Studies of Successful WealthTech Companies | |
| **Unit 6: Innovation and Entrepreneurship in FinTech** **7Hrs** | CO 6 |
| Ideation and Problem-Solving Techniques in FinTech, Lean Startup Methodology for FinTech Ventures, Pitching and Presenting FinTech Ideas, Funding Landscape: Venture Capital and Startup, Building a FinTech Ecosystem: Collaborations and Partnerships | |

**Reference Books / Reading:**

1. The Age of Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order" by Paul Vigna and Michael J. Casey
2. "The Fintech Revolution: The Best of Times and the Worst of Times for Financial Services" by Paolo Sironi
3. "Digital Bank: Strategies to Launch or Become a Digital Bank" by Chris Skinner
4. "Swipe to Unlock: A Primer on Technology and Business Strategy" by Neel Mehta, Parth Detroja, and Aditya Agashe
5. "Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World" by Don Tapscott and Alex Tapscott
6. "Crypto: How the Code Rebels Beat the Government—Saving Privacy in the Digital Age" by Steven Levy

7. "Machine Learning Yearning" by Andrew Ng (available online)
8. "The Big Data-Driven Business: How to Use Big Data to Win Customers, Beat
9.
10. Competitors, and Boost Profits" by Russell Glass and Sean Callahan

**Text Books:**

1. "FinTech: The Technology Driving Disruption in the Financial Services Industry" by Richard Lumb
2. "The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries" by Susanne Chishti and Janos Barberis
3. The Mobile Payment Revolution: How Digital Currency is Changing the Way We Do Business" by Dan Schulman and Mark MacCarthy
4. "Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order" by Paul Vigna and Michael J. Casey
5. Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
6. "Mastering Bitcoin: Unlocking Digital Cryptocurrencies" by Andreas M. Antonopoulos
7. "Machine Learning for Dummies" by John Paul Mueller and Luca Massaron
8. "Artificial Intelligence in Financial Markets: Cutting Edge Applications for Risk Management, Portfolio Optimization and Economics" by Christian L. Dunis, Peter W. Middleton, and Andreas Karathanasopoulos

| **SEM-IV** | **xxxxxx** | FinTech Industry Trends and Futures | |
|---|---|---|---|
| **Teaching Scheme: L/C** | **Credits-3** | **Examination Scheme** | |
| **Theory: 3 hrs/week** | **Th: 03** | **Theory** | **CIA: 50** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. **Understand the Fundamentals of FinTech**
2. **Analyze Core Technologies Powering FinTech**
3. **Examine Disruptive Financial Services**
4. **Explore Emerging Trends and Ethical Considerations**

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1: Remembering:** Recall the fundamental concepts and terminology related to FinTech, such as blockchain, robo-advisors, and digital payments.

**CO2:Understanding:**Demonstrate an understanding of how various technologies contribute to the functioning of FinTech applications.

**CO3:Applying:**Implement basic machine learning algorithms to address financial decision-making scenarios.

**CO4:Analyzing:**Compare and contrast the risks associated with traditional lending models and peer-to-peer lending platforms.

**CO5:Evaluating:**Critique the potential risks and advantages of decentralized finance (DeFi) protocols.

**CO6:Creating:**Design a comprehensive plan for securing customer data and ensuring compliance with data protection regulations.

| **Unit 1: Introduction to FinTech and Its Evolution** **8Hrs** | **CO** |
|---|---|
| Overview of FinTech: Definition, scope, and significance in the financial industry, Historical evolution: How technology has transformed finance over the years, Key players: Banks, startups, tech giants, and regulatory bodies in the FinTech ecosystem, Case studies: Early FinTech disruptors and their impact. | CO1 |
| **Unit 2: Core Technologies Powering FinTech** **8Hrs** | CO2 |
| Blockchain and cryptocurrencies: Understanding the basics, use cases, and challenges, Artificial Intelligence (AI) and Machine Learning (ML) in finance: Robo-advisors, credit scoring, fraud detection, and more, Big Data and Analytics: Leveraging data for risk assessment, customer insights, and personalized services, APIs and Open Banking: Enabling seamless integrations and innovative financial products. | |
| **Unit 3: Disruptive Financial Services** **7Hrs** | CO3 |
| Digital Payments: Mobile wallets, peer-to-peer transfers, contactless payments, and the role of digital currencies, Online Lending and Crowdfunding: Peer-to-peer lending platforms, crowdfunding models, and their impact on traditional banking, InsurTech: Digital insurance processes, usage-based insurance, and AI-driven claims processing, WealthTech: Robo-advisors, algorithmic trading, and democratizing access to investment services. | |
| **Unit 4: Regulatory Landscape and Challenges** **6Hrs** | CO4 |
| Regulatory technology (RegTech): How technology helps with compliance, risk management, and reporting, Global regulatory landscape: GDPR, PSD2, AML/KYC, and their impact on FinTech innovation, Challenges and considerations: Security, data privacy, cybersecurity, and managing customer trust, Case studies: Regulatory issues faced by FinTech startups and established institutions. | |
| **Unit 5: Emerging Trends in FinTech** **6Hrs** | CO5 |
| Decentralized Finance (DeFi): Exploring decentralized lending, yield farming, and automated market makers, Central Bank Digital Currencies (CBDCs): The concept of digital national currencies and their implications, Embedded Finance: Integration of financial services into non-financial platforms (e.g., eCommerce, social media), Quantum Computing: Potential impacts on cryptography, risk assessment, and financial modeling. | |

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| **Unit 6: Future of FinTech and Ethical Considerations** **7Hrs** | CO6 |
| Futuristic technologies: Exploring the role of AI, quantum computing, biometrics, and more in shaping FinTech, Financial inclusion and accessibility: Using technology to provide services to underserved populations, Ethical considerations: Data privacy, algorithmic biases, and social responsibility in FinTech innovation, Scenario planning: Imagining possible futures for the FinTech industry and their societal impacts. | |

**Reference Books / Reading:**

12. The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries" by Susanne Chishti and Janos Barberis
13. Fintech: The New DNA of Financial Services" by Pranay Gupta, Amit Kapoor, and Paul Schulte
14. Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
15. Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies is Changing the World" by Don Tapscott and Alex Tapscott
16. Machine Learning for Algorithmic Trading: Predictive Models to Extract Signals from Market and Alternative Data for Systematic Trading Strategies with Python" by Stefan Jansen

**Text Books:**

1. The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries" by Susanne Chishti and Janos Barberis
2. Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher
3. Hands-On Machine Learning for Algorithmic Trading" by Stefan JansenThe Crowdfunding Handbook: Raise Money for Your Small Business or Startup with Equity Funding Portals" by Cliff EnnicoThe RegTech Revolution: A Regulatory Technology Primer for Compliance Professionals" by Sabine L.B. VanderLinden
4. DeFi and the Future of Finance" by Campbell R. Harvey and Ashwin Ramachandran
5. The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order" by Paul Vigna and Michael J. Casey

| SEM-IV | xxxxxx | FinTech Entrepreneurship and Venture Capital | |
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| **Teaching Scheme: L/C** | **Credits-2** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To provide students with a comprehensive understanding of the FinTech landscape, including technologies, innovations, and disruptions in the financial industry.
2. To equip students with the skills and mindset required to identify FinTech opportunities, develop innovative business ideas, and execute entrepreneurial ventures.
3. To familiarize students with the regulatory challenges and opportunities in the FinTech sector, including compliance with financial regulations and data privacy laws.
4. To develop students' networking and pitching skills, enabling them to effectively communicate their FinTech startup ideas to potential investors, partners, and customers.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Recognize emerging trends, technologies, and market gaps within the FinTech sector where entrepreneurial opportunities exist.

**CO2:** Assess the investment potential of FinTech startups by conducting due diligence, analyzing market potential, and estimating financial projections.

**CO3:** Design financial strategies for FinTech startups, including pricing models, revenue streams, and cost structures.

**CO4:** Identify, analyze, and manage risks associated with technology adoption, market dynamics, competition, and changing regulations.

**CO5:** Cultivate an entrepreneurial mindset characterized by innovation, adaptability, resilience, and a willingness to learn from failures.

**CO6:** Understand the regulatory requirements and challenges specific to FinTech ventures and incorporate compliance into business strategies.

| **Unit 1: Introduction** **7Hrs** | **CO** |
|---|---|
| Concept, meaning, Significance, Goals of Fintech, key areas in FinTech, Role of FinTech in economic development, Opportunities and Challenges of Fintech, Fintech Evolution in different sectors of the industry-. Banks, Startups and Emerging Markets, Recent developments in FinTech., Definition and scope of FinTech, Trends and technologies in the FinTech ecosystem, Entrepreneurship in the context of FinTech innovation. | CO1 |
| **Unit 2: Developing a FinTech Business Model** **7 Hrs** | CO2 |
| Business model canvas for FinTech startups, Value proposition, revenue streams, and cost structure, Digital distribution and customer acquisition strategies, Regulatory landscape and compliance considerationS, Data privacy and cybersecurity in FinTecH, Case studies on regulatory successes and failures, Market analysis and customer needs, Problem-solving and ideation for FinTech solutions, Identifying gaps in the financial services sector. | |
| **Unit 3: Venture Capital and Startup Financing** **6 Hrs** | CO3 |
| Introduction to venture capital and angel investing, Venture capital funding stages and investment process, Pitching and presenting to investors, Due diligence process for FinTech investments, Valuation methods for early-stage startups, Assessing risks and returns in FinTech ventures. | |
| **Unit 4: Ethical Considerations in FinTech** **8 Hrs** **8** | CO4 |
| Ethical challenges in technology-driven financial services, Responsible innovation and addressing biases Balancing innovation with consumer protection. Future prospects and potential issues with Fintech, FinTech as an aid to customer satisfaction, inTech 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. | |

**Reference Books / Reading:**

1. Fintech for Beginners, Author Swanson Seth, Publisher: Createspace Independent Publishing Platform ISBN : 9781539919315,9781539919315 Edition 1
2. **Fintech: The New DNA of Financial Services"** by Pranay Gupta and Kaustubh Dhavse
3. **Venture Deals: Be Smarter Than Your Lawyer and Venture Capitalist"** by Brad Feld and Jason Mendelson
4. **"FinTech and the Remaking of Financial Institutions"** by Aaron Klein.

**Text Books:**

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. An Introduction to Statistical Learning: with Applications in R (Springer Texts in Statistics) by Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani, Springer, ISBN-13: 978-1461471370.

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| **SEM-IV** | **xxxxxx** | Digital Identity and Biometrics in Finance | |
| **Teaching Scheme: L/C** | **Credits-2** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To understand the regulatory framework surrounding digital identity and biometrics in finance, including data protection laws and standards.
2. To Explore the integration of biometric technologies into financial systems, online platforms, mobile apps, and ATMs, and understand the challenges and benefits of implementation.
3. To Analyze the risks associated with biometric authentication, including spoofing, deepfakes, and potential vulnerabilities, and explore risk mitigation strategies.
4. Describe the principles and significance of digital identity in the context of financial services.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Discuss the security and privacy implications of using biometric data in finance, addressing concerns related to data breaches, consent, regulatory compliance, and ethical considerations.

**CO2:** Differentiate between various biometric technologies and understand their strengths and limitations

**CO3:** Evaluate and recommend suitable applications of biometric authentication in financial operations.

**CO4:** Analyze the security and privacy challenges associated with biometric data usage in financial transactions.

**CO5:** Identify potential risks in biometric authentication and propose risk mitigation measures.

**CO6:** Evaluate the user experience aspects of biometric authentication and its impact on customer adoption and satisfaction in financial services.

| **Unit 1: Introduction** **7Hrs** | **CO** |
|---|---|
| Definition and significance of digital identity, Overview of biometric technologies and their role in financial services, Importance of authentication and security in financial transactions, Fingerprint recognition: principles and applications, Facial recognition: technology and use cases, Iris scanning and retinal recognition, Voice recognition and speaker verification. | CO1 |
| **Unit 2:** Applications in Financial Services **7 Hrs** | CO2 |
| Customer onboarding and KYC processes, Secure authentication for mobile banking apps, Biometrics in payments and digital wallets, Fraud detection and prevention using biometric data, Risks associated with biometric data breaches, Spoofing, deepfakes, and potential vulnerabilities, Role of encryption and multi-factor authentication, Privacy laws and data protection regulations. | |
| **Unit 3:** Technological Integration **6 Hrs** | CO3 CO5 |
| Implementation of biometric authentication in financial systems, Challenges of integrating biometrics with existing infrastructure, User experience considerations and user acceptance testing, Overview of relevant regulations and standards, GDPR and data protection in biometric authentication, Cross-border data transfers and international considerations. | |
| **Unit 4: User Experience and Adoption** **8 Hrs** | CO4 CO6 |
| Factors influencing user acceptance of biometric authentication, Design principles for seamless user experiences, Case studies of successful and unsuccessful adoption, Ethical implications of biometric data usage, Informed consent and user rights, Legal responsibilities of financial institutions. | |

## Reference Books / Reading:

1. **Biometric Security and Privacy: Opportunities & Challenges in the Big Data Era"** by Raymond Choo
2. **"Digital Identity: Unmasking Identity Management Architecture"** by Phillip J. Windley
3. **Biometrics in a Data-Driven World: Trends, Technologies, and Challenges"** by Sinjini Mitra
4. **"Biometric Authentication in Financial Services: A Comprehensive Overview"** by Jessica Fridrich and David Yoon

## Text Books:

1. **Biometric Technologies and Verification Systems"** by John R. Vacca
2. **Handbook of Biometrics for Forensic Science"** by Massimo Tistarelli and Christophe Champod
3. **The Role of Biometrics in Enhancing Financial Inclusion"** by Kenneth Boateng and Theo Lynn

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|---|---|---|---|
| **SEM-IV** | **xxxxxx** | Advanced Topics in Blockchain Applications | |
| **Teaching Scheme: L/C** | **Credits-2** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To provide students with an advanced understanding of blockchain technology, its underlying principles, and its potential applications beyond cryptocurrencies.
2. To explore the latest trends, developments, and emerging use cases in blockchain technology across various industries.
3. To explore advanced topics related to smart contracts, decentralized applications (DApps), and their programming languages (e.g., Solidity, Rust).
4. To analyze scalability challenges in blockchain networks and study advanced scaling solutions such as sharding, state channels, and off-chain transactions.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Analyze scalability challenges in blockchain networks and propose appropriate scaling solutions for different use cases.

**CO2:** Evaluate and compare various advanced consensus mechanisms, understanding their benefits and limitations.

**CO3:** Assess approaches for achieving interoperability between different blockchain networks and ecosystems.

**CO4:** Apply advanced cryptographic methods and security practices to enhance the security and privacy of blockchain applications.

**CO5:** Critically evaluate different governance models and their effectiveness in maintaining decentralized networks.

**CO6:** Design and implement complex smart contracts and DApps using advanced programming languages and tools.

| **Unit 1: Introduction** **7Hrs** | **CO** |
|---|---|
| Introduction to blockchains, History and Origin of Blockchain, Technical Concepts of Blockchain Systems, Physical Ledger Technology and Security - Digital Ledger Technology Digital Security Technology - Cryptographic Hash Functions - Digital Signatures Decentralized networks and technology (serverless), Overview of consensus mechanisms: Practical Byzantine Fault Tolerance (PBFT), Delegated Proof of Stake (DPoS), and more., Comparative analysis of consensus algorithms' efficiency, security, and decentralization. | CO1 |
| **Unit 2: : Scalability Solutions in Blockchain** **7 Hrs** | CO2 |
| Scaling challenges in block chain networks., Sharding, state channels, side chains, and off-chain transactions as scaling solutions., Case studies of projects implementing different scalability approaches, In-depth exploration of smart contract programming languages (e.g., Solidity, Rust), Advanced smart contract design patterns, Building and deploying complex DApps. | |
| **Unit 3: Interoperability and Cross-Chain Solutions** **6 Hrs** | CO3 CO5 |
| The need for interoperability between blockchain networks,Cross-chain communication protocols and technologies, Challenges and potential benefits of cross-chain interoperability, Advanced cryptographic techniques in blockchain., Zero-knowledge proofs, ring signatures, and homomorphic encryption., Privacy-focused blockchains and applications | |
| **Unit 4: Blockchain Governance and Decentralized Autonomous Organizations (DAOs) 8 Hrs** | CO4 CO6 |
| Models of blockchain governance and their implications. ,Decentralized Autonomous Organizations (DAOs) and their challenges.Case studies of successful and unsuccessful governance models, Tokenization of assets and securities, Non-fungible tokens (NFTs) and their applications, Exploring emerging use cases beyond cryptocurrencies., Overview of emerging trends in blockchain technology, Exploring the potential impact of quantum computing on blockchain security.The role of blockchain in emerging technologies like AI, IoT, and supply chain. | |

**Reference Books / Reading:**

**1.** Blockchain: A Practical Guide to Developing Business, Law, and Technology Solutions, Joseph Bambara, Paul R. Allen, Mc Graw Hill.

2. Blockchain: Blueprint for a New Economy, Melanie Swan, O'Reilly

**3."Mastering Bitcoin: Unlocking Digital Cryptocurrencies"** by Andreas M. Antonopoulos

**4."Blockchain Applications: A Hands-On Approach"** by Arshdeep Bahga and Vijay Madisetti

**Text Books:**

1. Ambadas, Arshad Sarfarz Ariff, Sham "Blockchain for Enterprise Application Developers", Wiley

2. Andreas M. Antonpoulos, "Mastering Bitcoin: Programming the Open Blockchain" , O'Reilly

3. **"Blockchain Basics: A Practical Approach"** by Imran Bashir

4. **Blockchain Technology in Business"** by T. Rajasekar.

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| **SEM-IV** | **xxxxxx** | FinTech Regulation and Compliance | |
| **Teaching Scheme: L/C** | **Credits-2** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To provide students with a comprehensive understanding of the FinTech ecosystem, its innovations, and the need for regulatory oversight.
2. To introduce students to the regulatory frameworks and compliance requirements that apply to different areas of FinTech, such as payments, lending, crowdfunding, and cryptocurrencies.
3. To delve into the unique challenges and complexities of achieving regulatory compliance in the rapidly evolving FinTech sector.
4. To understand the concept of regulatory sandboxes and their role in facilitating innovation while ensuring regulatory compliance.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Analyze strategies that FinTech companies use to ensure compliance with regulations while fostering innovation.

**CO2:** Evaluate the anti-money laundering and know-your-customer practices of FinTech firms and understand their role in preventing financial crimes.

**CO3:** Assess how FinTech companies implement data privacy measures, ensure consumer protection, and maintain transparency.

**CO4:** Understand the concept of regulatory sandboxes, their objectives, and their impact on testing innovative FinTech solutions.

**CO5:** Discuss the regulatory challenges posed by emerging technologies and their potential to disrupt traditional financial services.

**CO6:** Reflect on the ethical implications of regulatory compliance, consumer protection, and the responsible use of technology in the FinTech industry.

| **Unit 1: Introduction** **7 Hrs** | **CO** |
|---|---|
| Definition and scope of FinTech regulation and compliance, The Role of the Regulators, Equal Treatment and Competition, Need for a regulatory assessment of Fintech, India Regulations, The Risks to Consider, Regtech and SupTech, The rise of TechFins, Regulatory sandboxes, compliance and whistleblowing, Overview of key regulatory bodies and their roles, Importance of regulatory oversight in ensuring industry stability. | CO1 |
| **Unit 2: CROWDFUNDING AND DIGITAL ASSETS** **6 Hrs** | CO2 |
| Types of crowdfunding, The Jobs Act, Regulation crowdfunding, Regulation A+, Regulation D crowdfunding, Intrastate offerings, Digital Assets – Three uses of Digital Assets, A world of Altcoins, 224 Stablecoins, Digital Asset Forks, Initial Coin Offerings, Regulatory Framework for Digital and Crypto Assets, Central Bank Digital Currencies. | |
| **Unit 3: Compliance Challenges in FinTech** 7 Hrs | CO3 CO5 |
| Challenges of maintaining compliance in a dynamic and innovative environment., Regulatory uncertainties and their impact on FinTech companies, Case studies of compliance failures and their consequences, **Anti-Money Laundering (AML) and Know Your Customer (KYC)-** Role of AML and KYC practices in preventing financial crimes, AML regulations specific to crypto currencies and digital transactions, Implementing effective KYC processes in FinTech services. | |
| **Unit 4: Consumer Protection and Data Privacy** 8 Hrs | CO4 CO6 |
| Importance of data privacy and security in FinTech services, Consumer protection measures and regulations in financial technology, Balancing innovation with consumer rights and fair practices, Understanding the concept and purpose of regulatory sandboxes, Analysis of regulatory sandbox initiatives and their impact on fostering innovation, Benefits and limitations of regulatory sandboxes for FinTech startups, Regulatory challenges posed by emerging technologies (e.g., blockchain, AI, IoT), Ethical considerations in FinTech regulation, compliance, and responsible innovation. | |

Reference Books / Reading:

1. FinTech Law and Regulation: A Comprehensive Guide to the Regulation of Financial Technology" by Iris H-Y Chiu and Janice K-K Lee
2. Regulating Blockchain: Techno-Social and Legal Challenges" by Philipp Hacker and Ioannis Lianos
3. The RegTech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries" by Janos Barberis and Douglas W. Arner

4. "Regulation of FinTech and Financial Services: Getting the Regulatory Mix Right" by

D.N. Banerjee and Chitru Fernando

Text Books:

1. Digital Financial Services: Regulatory and Policy Context in Emerging Markets" by Julia E. Assaad and Abigail E. Ragan.

2. The Legal Technology Guidebook" by Kimberly S. Ambrose

3. "Digital Financial Services: Regulatory and Policy Considerations" by Ahmed Dermish and Marie-Eve Proulx

4. andbook of Blockchain, Digital Finance, and Inclusion, Volume 1: Cryptocurrency, FinTech, InsurTech, and Regulation" edited by David LEE Kuo Chuen

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| **SEM-IV** | **xxxxxx** | Digital Ethics and Responsible FinTech | |
| **Teaching Scheme: L/C** | **Credits-2** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th: 02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To explore the ethical challenges posed by the rapid advancements in digital technologies and their integration into the financial sector.
2. To cultivate a critical awareness among students about the potential benefits and risks associated with FinTech innovation and its impact on various stakeholders, including consumers, financial institutions, and society as a whole.
3. To analyze complex ethical dilemmas that arise in the context of FinTech, and to develop strategies for making morally informed decisions.
4. To foster a sense of responsibility and accountability among future FinTech professionals, emphasizing the need for transparency, fairness, and the protection of user data and privacy.

**Course Outcomes:**
**On completion of the course, learner will be able to–**

**CO1:** Demonstrate a grasp of various ethical theories and frameworks, and apply them to evaluate ethical issues in the FinTech industry.

**CO2:** Identify and analyze ethical challenges related to data privacy, algorithmic bias, cybersecurity, digital inclusion, and other pertinent topics in the context of FinTech.

**CO3:** Evaluate the concept of responsible innovation in FinTech, considering its implications for product design, deployment, and societal impact.

**CO4:** Understand the regulatory and legal landscape governing FinTech and how ethical principles intersect with compliance requirements.

**CO5:** Recognize the importance of user-centric design and its alignment with ethical principles to create FinTech solutions that prioritize user well-being.

**CO6:** Analyze and mitigate algorithmic bias, ensuring fairness and inclusivity in FinTech applications such as lending, insurance, and credit scoring.

| **Unit 1: Introduction** **7 Hrs** | **CO** |
|---|---|
| Meaning, Definition of Digital Ethics, Objectives, significance, Historical development of FinTech and its impact on the financial industry, Overview of digital ethics and its importance in the FinTech context, Ethical considerations arising from the integration of technology and finance. | CO1 |
| **Unit 2: Ethical Theories and Frameworks** **7 Hrs** | CO2 |
| Exploration of major ethical theories (utilitarianism, deontology, virtue ethics), Application of ethical frameworks to FinTech scenarios, Ethical decision-making models and their relevance in the context of FinTech, Understanding data privacy laws and regulations (e.g., GDPR, CCPA), Ethical implications of data collection, storage, and usage in FinTech, Techniques for ensuring data security and mitigating risks. | |
| **Unit 3: Algorithmic Bias and Fairness** **7 Hrs** | CO3 CO5 |
| Examining algorithmic bias and its impact on marginalized communities, Strategies to identify and address bias in machine learning algorithms, Implementing fairness-aware algorithms in FinTech applications, Understanding the digital divide and its implications for financial services, Designing inclusive FinTech solutions for diverse user groups Ethical considerations in promoting digital accessibility and financial inclusion. | |
| **Unit 4: Responsible Innovation and Regulatory Compliance** **7 Hrs** | CO4 CO6 |
| Exploring the concept of responsible innovation in FinTech, Regulatory landscape for FinTech: Compliance, ethics, and legal considerations, Case studies of ethical and regulatory challenges in FinTech innovation, Emerging trends in FinTech and their ethical implications, Role of ethical leadership in shaping the future of FinTech, Final projects or presentations focusing on ethical FinTech solutions. | |

Reference Books / Reading:

1. **"Digital Ethics: Rethinking Privacy and Trust in the Digital Age"** by J. Dubois, S. Nissenbaum.

2. **"The Ethics of Payments: Paper, Plastic, or Bitcoin?"** by J. Harvey

3. **Ethics and Financial Technology: A New Model for Banking and Finance"** by S. van den Berghe, C. Ferri, W. Lang, S. Ongena

4. **The Fintech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries"** by S. Brauneis, N. Wichmann, S. Nielsen, S. B. Fernandez

Text Books:

1. **"The Fintech Revolution: Transforming Financial Services"** by L. Ossei, A. Golding

2. **Ethics and the Future of Capitalism: Praxiology - The International Annual of Practical Philosophy and Methodology, Volume 17"** edited by L. Zsolnai

3. **Digital Financial Services: Regulatory and Policy Perspectives"** by J. B. K. Keogh, R. Veeraraghavan

4. **Digital Finance: Security Tokens and Unlocking the Real Potential of Blockchains"** by D. D. von Rosen

| **SEM IV** | **2316501** | Emerging Technologies in Finance | |
|---|---|---|---|
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. Learn to balance innovation with compliance in the financial industry.
2. Blockchain and cryptocurrencies revolutionize financial transactions.
3. AI and ML Fundamentals and Data-Driven Decision Making to use AI for informed decision-making.
4. FinTech Landscape, Digital Transformation, Regulatory Tech and Compliance, and Anticipating Disruptions explore the evolving landscape of financial technology.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

CO5 Ethical considerations and regulatory challenges arise from the integration of emerging technologies in financial practices.

CO6 Blockchain and cryptocurrencies are essential for financial transactions.

CO7 AI and ML can be used to analyze financial data, predict market trends, and design algorithms.

CO8 FinTech Comprehension, Digital Transformation Awareness, and Regulatory Tech Awareness are important for understanding the impact of FinTech innovations on traditional financial services.

CO9 Future-Oriented Thinking and Strategic Adaptability to Prepare for Future Challenges and Opportunities.

| **Unit 1: Introduction to Emerging Technologies in Finance** **7 Hrs** | **CO** |
|---|---|
| Introduction, Understanding the Landscape: Overview of technological advancements in the finance sector, Importance of Technology: Impacts on efficiency, risk management, and customer experience, Ethical and Regulatory Considerations: Balancing innovation with compliance, Case Studies: Examining real-world examples of technology-driven financial transformations. | CO1 |
| **Unit 2: : Blockchain and Cryptocurrencies in Finance** **7 Hrs** | CO2 |
| Meaning & definition, concept, Exploring Blockchain Technology: Decentralization, security, and transparency, Cryptocurrencies: Bitcoin, Ethereum, and beyond, Applications in Finance: Smart contracts, digital identities, and supply chain finance, Challenges and Opportunities: Regulatory hurdles, scalability, and industry adoption. | |
| **Unit 3: Artificial Intelligence and Machine Learning in Finance** **7 Hrs** | CO3 CO5 |
| Concept, Meaning, Definition, AI and ML Fundamentals: Definitions, algorithms, and learning models, Predictive Analytics: Credit scoring, market trends, and customer behavior prediction Algorithmic Trading: High-frequency trading, robo-advisors, and risk management, Fraud Detection and Prevention: Identifying anomalies and enhancing security with AI. | |
| **Unit 4: : FinTech Innovations and Future Trends** **7 Hrs** | CO4 CO6 |
| Introduction, , New innovations in FinTech, FinTech Ecosystem: Peer-to-peer lending, mobile payments, neobanks, and more, Digital Transformation in Banking: Open banking, API integration, and customer-centric services, RegTech and Compliance: Utilizing technology to navigate regulatory requirements, Future of Finance: Exploring potential disruptions such as quantum computing and augmented reality. | |

Reference Books :

1. "FinTech Future" by Sanjay Phadke, Notion Press
2. "Future Wealth: The New Economics of Work and Wages in the 21st Century"by Sanjay Dhar, Publication Penguin Random House India
3. "Banking 4.0: Banking Everywhere, Never at a Bank" by Brett King, Co-Author (Indian Edition): Debashis Sarkar, Wiley
4. "Blockchain Basics: A Non-Technical Introduction in 25 Steps" by Daniel Drescher, Indian Edition Author: Nishith Pathak, Publication Wiley
5. "AI and Analytics: Accelerating Business Decisions" by Sameer Dhanrajani, Publication Notion Press

Text Books

1. 1. Emerging Technologies in Financial Services: From Technological Innovations to Regulatory Challenges" by Rajeev Kumar, Sameer Sharma, Publication Springer
2. "Digital Banking: Theory and Practice" by Shanmuganathan Vasanthakumar, R. Gayathri Devi, S. Sampath, Publication PHI Learning
3. "Blockchain Applications in Finance" by Deepak Goyal, Kevin Lohani, Publication Springer
4. "Artificial Intelligence and Machine Learning in Financial Services" by Subhash C. Misra, Robert C. Hoag, Publication Wiley

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| **Semester-IV** | | **Indian Society and Culture** | |
| **Teaching Scheme:** | **Credits** | **Examination Scheme** | |
| **Theory: 2 hrs/week** | **Th:02** | **Theory** | **CIA: 25** |
| | | | **End-Sem:50** |
| | | **Pract:** | -- |
| | | **Oral:** | -- |
| | | **Termwork** | -- |

**Course Objectives: The student should be able to**

1. To develop a comprehensive understanding of the social, cultural, and demographic aspects of Indian society.
2. To analyze the impact of cultural and social factors on business practices and organizations in India.
3. To explore the diversity and regional variations within Indian society and culture.
4. To understand the role of religion, caste, and gender in shaping Indian society.
5. To examine the influence of globalization and modernization on Indian society and culture.

**Course Outcomes:**

**On completion of the course, learner will be able to–**

**CO1:** Recall and define the concepts and theories related to Indian society and culture

**CO2:** Explain the social, cultural, and religious diversity in India and its impact on society

**CO3:** Apply the knowledge of Indian society and culture in a business context

**CO4:** Analyze the social, economic, and political factors influencing Indian society and culture

**CO5:** Evaluate the effectiveness of government policies and programs in promoting social inclusion and welfare in India

**CO6:** Develop strategies for promoting cultural diversity and inclusivity in organizations operating in India

| **Unit 1: Introduction to Indian Society and Culture** **7 Hrs** | **CO** |
|---|---|
| Understanding Society and Culture: Definition and key characteristics of society and culture, Importance of studying society and culture in the context of MBA, Relationship between society, culture and business<br><br>Dimensions of Indian Society: Diversity in Indian society: religion, language, caste, region, etc., Social structure in India: family, community, and institutions, Social stratification and inequality in India, Social issues and challenges in Indian society<br><br>Cultural Aspects of India: Cultural diversity and heritage of India, Indian art, music, dance, literature, and cinema, Traditions, customs, and rituals in India, Impact of globalization on Indian culture<br><br>Societal Values and Norms: Values and norms in Indian society, Importance of values in business and management, Ethical challenges in Indian society and business, Role of traditional and modern values in the workplace | CO1 |
| **Unit 2: Social Institutions and Organizations in India: 7 Hrs** | CO2 |
| Family and Kinship Systems: Importance of family in Indian society, Traditional roles and responsibilities within the family, Changing family structure and dynamics in urban India, Impact of family on professional success and work-life balance,<br><br>Education System in India: Historical development of education in India, Structure and organization of the education system, Challenges and issues in the Indian education system, Role of education in social mobility and economic development<br><br>Political System and Governance: Evolution of the political system in India, Structure and functions of government institutions, Role of political parties and electoral system, Challenges and issues in Indian governance<br><br>Non-Governmental Organizations (NGOs): Importance and role of NGOs in India, Types of NGOs and their areas of focus, Challenges and impact of NGOs in Indian society, Corporate social responsibility and partnerships with NGOs | |
| **Unit 3: Gender, Religion, and Diversity in Indian Society: 7 Hrs** | CO3 & CO6 |
| Gender Roles and Equality: Gender roles and stereotypes in Indian society, Women empowerment and gender equality initiatives, Emerging trends and challenges in gender relations, Impact of gender dynamics on workplace diversity and inclusion,<br><br>Religion and Society: Religious diversity in India: Hinduism, Islam, Sikhism, Christianity, etc., Religious practices and rituals in Indian society, Interreligious harmony and conflicts in India, Influence of religion on business practices and ethics<br><br>Caste System and Social Justice: Historical background and basis of the caste system in India, Impact of caste system on social mobility and equality, Government measures and policies for social justice, Role of caste in workplace and business interactions<br><br>Ethnic and Regional Diversity: Regional diversity in India: languages, cultures, and traditions, Challenges and opportunities of regional diversity in business, Cultural sensitivity and inclusivity in a diverse workforce, Importance of promoting cultural exchange and understanding in a | |

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| multicultural society | |
| **Unit 4: Social Change and Contemporary Issues: 7 Hrs**<br>Social Change and Modernization: The concept of social change and its drivers, Impact of modernization and urbanization on Indian society, Changing social values and aspirations, Role of technology and innovation in social change<br><br>Globalization and its Impact on Indian Society: Effects of globalization on Indian economy, society, and culture, Opportunities and challenges for Indian businesses in a globalized world, Globalization and cultural assimilation, Strategies for managing cultural diversity in a globalized workforce<br><br>Social Movements and Activism: Importance of social movements in driving social change, Examples of social movements in India: women's rights, environmental, activism, etc., Role of social media in mobilizing social movements, Impact of social movements on business and corporate social responsibility<br><br>Contemporary Issues in Indian Society: Poverty and income inequality in India, Health, sanitation, and public health challenges, Environmental degradation and sustainability issues, Emerging social issues: mental health, LGBTQ+ rights, etc. | CO4 & CO5 |

**Reference Books / Reading:**

1. "Indian Society and Culture: An Introduction" by Nadeem Hasnain
2. "Indian Society: Themes and Social Issues" by Ram Ahuja
3. "Indian Social Structure and Change" by Yogesh Atal
4. "Culture and Society in India" by Dipankar Gupta

**Text Books:**

1. "Sociology: Themes and Perspectives" by Michael Haralambos and Martin Holborn
2. "Indian Polity" by M. Laxmikanth
3. "Indian Economy" by Ramesh Singh
4. "Indian History" by Bipin Chandra