DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY
Chhatrapati Sambhajinagar.

CIRCULAR /SU/CM/NEP PG-II Year/23/2025

It is hereby inform to all concerned that, on the recommendation of the Dean, Faculty of Commerce & Management; the Academic Council at its meeting held on 21 July, 2025 has been accepted *the following Curriculum at PG Level* as per National Education Policy-2020" *for the implemention of all concernerd affiliated* **colleges** under the Faculty of Commerce & Management.

Sr.No.	Courses	Semester
1	M.B.A	III & IV

This is effective from the Academic Year 2025-26 and Onwards as per appended herewith.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Chhatrapati Sambhajinagar
431 004.
REF.NO. SS/COMM & MANG./2025-26
Date:- 08/ 09 /2025. 1525-29

Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

1] **The Head, concerned Department,**
   Dr. Babasaheb Ambedkar Marathwada University. Chhatrapati Sambhajinagar
2] The Director, University Network & Information Centre, UNIC, with a **request to upload this Circular on University Website.**
   Copy to :-
1] The Director, Board of Examination & Evaluation,
2] The Deputy Registar, Post Graduate Section, Dr. Babasaheb Ambedkar Marathwada University. Chhatrapati Sambhajinagar

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR

(Three Year/Four Years(Hons)/Four Years (Hons with Research)

M.B.A.

IIIrd and IVth Semester

As per National Education Policy-2020

For Affiliated Colleges Only

Faculty of Commerce & Management Science.

From the Academic Year 2025-26 & Onwards.

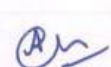| SEMESTER III	MANB501	BUSINESS POLICY & STRATEGIC MANAGEMENT
3.CREDITS		Mandatory/Discipline Specific Core (DSC)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remember	Define the basic concepts, evolution, and types of strategies in strategic management, including Mintzberg's 5Ps and different levels of strategy.
CO2	Understand	Describe the elements of strategic intent such as vision, mission, purpose, and goals in the context of business direction.
CO3	Apply	Apply tools like ETOP and Porter's Five Forces to assess the external business environment and support strategic decision-making.
CO4	Analyze	Analyze business portfolios using the BCG Matrix and GE 9-Cell Model to support strategic decision-making.
CO5	Evaluate	Evaluate strategies such as cost leadership, differentiation, mergers, acquisitions, and strategic alliances for their suitability and impact.

Unit I	Strategy and the Quest for Competitive Advantage: Military origins of Strategy — Evolution - Concept and Characteristics of strategic management— Defining strategy — Mintzerbg's 5Ps of strategy — Corporate, Business and Functional Levels of strategy - Strategic Management Process.
Unit II	Strategic Intent & Strategy Formulation: Vision, mission and purpose — Business definition, objectives and goals.
Unit III	Analyzing Company's External Environment: Environmental appraisal — Scenario planning — Preparing an Environmental Threat and Opportunity Profile(ETOP) —Industry Analysis - Porter's Five Forces Model of competition.
Unit IV	Corporate Portfolio Analysis: Business Portfolio Analysis - BCG Matrix — GE 9 Cell Model - Generic Competitive Strategies: Low cost, Differentiation, Focus.
Unit V	Grand Strategies: Stability, Growth (Diversification Strategies, Vertical Integration Strategies, Mergers, Acquisition & Takeover Strategies, Strategic Alliances & Collaborative Partnerships), Retrenchment. Strategy implementation

Books and References:

1. A.A. Thompson A.J. Shrikland J.E. Gamble, Crafting and Executing Strategy — Atest for competitive advantage, Tata Me Graw Hill, 4th Edition 20052.Ranjan Das, Crafting the strategy: concept and cases in strategic management, TataMc Graw Hill, 2004

2. Kazmi Azher , Business Policy and Strategic Management , Tata Mc Graw Hill2nd Edition 2003,

3. Subha Rao P, Business Policy and Strategic Management , Himalaya PublishingHouse 1st Edition reprint 2004

4. Pitts, Rober A & Lei David, Strategic Management Thomson , 3rd Edition 2003

Semester III	MANB502	Business Laws		
3 Credits	LTP: 2:1:0	Mandatory/Discipline	Specific	Core
		(DSC)		

CO#	Cognitive Abilities	Course Outcome
CO1	Remember	Recall fundamental concepts and provisions of business laws including Contract Law, Sales of Goods Act, Negotiable Instrument Act, Companies Act, and Consumer Protection Act.
CO2	Understand	Explain the legal principles governing business transactions and their implications for business operations.
CO3	Apply	Apply relevant legal provisions to resolve basic business disputes and compliance issues.
CO4	Analyze	Analyze legal cases and business scenarios to identify potential legal risks and recommend compliant actions.
CO5	Evaluate	Evaluate the effectiveness of legal frameworks in protecting stakeholder interests and ensuring ethical business practices.

UNIT – I	Indian Contract Act, 1872: Nature and Classification of Contracts-Offer and Acceptance-Consideration-Capacity to Contract-Free Consent-Legality of Object-Void Agreements-Contingent Contracts-Performance of Contracts-Discharge of Contracts-Remedies for Breach of Contracts-Indemnity and Guarantee
UNIT – II	Sales of Goods Act, 1930: Nature of Contract of Sale-Conditions and Warranties-Transfer of Ownership-Performance of Contract of sale-Rights of Unpaid Seller-Remedies for Breach of Contract of sale
UNIT – III	Negotiable Instruments Act: Nature of Negotiable Instruments-Promissory notes, Bills of Exchange and Cheques-Parties to Negotiable instruments and their Capacity-Holder and Holder in due course-Presentment, dishonor of Negotiable Instruments-Liability of parties
UNIT – IV	Companies Act, 2013: Definition, Meaning of Company-Features and Types of Companies-Incorporation of Company-Memorandum of Association-Article of Association- Prospectus-Share Capital
UNIT – V	Consumer Protection Act, 1986: Introduction and Definition-Consumer Dispute Redressal Agencies-Complaint and Procedure of Redressal-Unfair Trade Practices

Books and References:

1. N.D. Kapoor, *The Elements of Mercantile Law, 26th Edition*

2. P.P.S. Googna, *A Textbook of Mercantile Law, 5th Edition*

3. Maheshwari and Maheshwari, *A manual of Business laws, 2008*

4. C.L. Bansal, *Business and Corporate laws 2007*

Specialization – Finance

| SEMESTER – III | MANB 503F | MONEY AND BANKING |
| 3 CREDITS | | Mandatory/Discipline Specific Core (DSC) (Finance) |

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remember	Describe the meaning, functions, and classification of money and explain various monetary standards and their applications in different economic systems.
CO2	Understand	Explain the structure and functioning of commercial banks and the Reserve Bank of India, including their role in credit creation and credit control.
CO3	Apply	Illustrate the working of various monetary policy tools and interpret the functioning of money and capital markets in India.
CO4	Analyze	Analyze the impact of banking reforms, credit creation, and central bank actions on the Indian financial system.
CO5	Evaluate	Assess the effectiveness and limitations of monetary policy in achieving economic stability and development in the Indian context.

UNIT – I	Money: Meaning, functions and classification, Role of money in capitalist, socialist and mixed economies, Monetary standards – Metallic and paper standards, system of note issues in India.
UNIT – II	Banking: Meaning and types of Banks. Functions of Commercial banks. Process of credit creation. Purpose and limitations. Liabilities and assets of banks. Commercial banking in India. Nationalization of commercial banks in India. Recent reforms in banking sector in India.
UNIT – III	Functions of Central Bank. Quantitative and qualitative methods of credit control: Bank rate policy, Open market operations, Cash reserve ratio and selective methods. Role and functions of the Reserve Bank of India.
UNIT – IV	Structure and importance of Money Market. Indian Money market, Indian Capital Market, Monetary Policy: objectives, Limitations of Monetary Policy with reference to India.
UNIT – V	Price Index Numbers: Meaning and types; Steps in Construction of Price Index Numbers; Conceptual and Practical difficulties in the Measurement of Index Numbers; Importance of Index Numbers: Fisher's Transactions Approach and Cambridge Cash Balance Approach; A comparison of Fisherian and Cambridge Versions

Books and References:

1. Hajela, T.N., (2009) Money and Banking, Ane Books Pvt Ltd., New Delhi.
2. Sundharam KPM, Banking: Theory, Law and Practice, Sultan Chand and Sons, New Delhi (recent
3. edition)
4. M.R. Baye, D.W. Jansen (1996), Money, Banking and Financial Markets, AITBS (Indian ed.)
5. K.C. Sekhar: Banking – Theory and Practice, Vikas Publishing House, New Delhi (recent edition).

SEMESTER – III	MANB504F	INDIAN FINANCIAL SYSTEM
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Understand the Financial System, Financial Institutions and its functions.
CO2	APPLY	Apply the Knowledge of various Financial Instruments of Capital Markets for overall development.
CO3	ANALYZE	Analyse various sources of finance and institutional support systems for entrepreneurial ventures.
CO4	EVALUATE	Evaluate the role of regulators of Financial Markets in fostering entrepreneurship development and MSME growth.

UNIT – I	Introduction to Indian financial system: Meaning, history of Indian financial system, Nature of financial system, financial system and economic development, structure of Indian financial system
UNIT – II	Banking Institutions: commercial banks, cooperative banks and develop-mental banks – Meaning & definition of bank, objectives, importance of banking institutions, Characteristics & functions of bank, credit creation, NPA, Nationalization of commercial Banks.
UNIT – III	Money Market – meaning, Functions, Characteristics and role of a money market. Capital market - Primary & Secondary market - Meaning, Objectives, Functions, importance and role of new issues in raising finance, history of stock exchange in India, NSE, BSE, Distinction between capital market and money market. Role of Financial Market in Economic Development of a country
UNIT – IV	Capital market instruments – common stock – preference shares - Bonds – Debentures - Hybrid securities – Gold ETF – Mutual funds - Foreign exchange market – Derivatives – Money Market Instruments: call money –Treasury bills – commercial papers – certificate of deposits - Banker's Acceptance – Roles ,Functions and Importance
UNIT – V	Securities Contracts (Regulations) Act 1956, The Securities and Exchange Board of India Act, 1992 – Objectives, Powers, functions and guidelines. IRDA – Objectives, Powers, functions and guidelines, RBI – Objectives, Powers, functions and guidelines. PFRDA, NABARD, etc.

Books and References:

1. Avdhani, 1999, Investment and Securities Markets in India, Delhi, Himalaya Publications.

2. Varshney, P.N., 1999, Indian Financial System, New Delhi, Sultan Chand & Sons.

3. Srivastava R.M., 2001, Management of Indian Financial Institution, Mumbai Himalaya Publishing House.

4. Punithavathy Pandian – Financial Services and Markets, Vikas publishers

5. Gordon and Natarajan – Financial Markets and Services, Himalaya Publishing House

SEMESTER – III	MANB 505F	SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBER	Define the key concepts of security analysis, investment alternatives, and types of risks involved in investments.
CO2	UNDERSTAND	Explain the basic concepts of security analysis, the relationship between risk and return, types of investment alternatives, and the purpose of conducting security analysis.
CO3	APPLY	Apply fundamental and technical analysis methods such as the EIC framework and Dow Theory to identify market trends and security valuation.
CO4	ANALYZE	Analyze financial statements, technical patterns, and market indicators to identify trends and make informed investment decisions.
CO5	EVALUATE	Evaluate investment portfolios based on risk-return performance using models such as CAPM, and the principles of market efficiency.

	UNIT – I	Introduction to Security analysis, Risk-Return – Investment Alternatives – Financial Securities & Real Estate Investment – Objectives of Security Analysis – Types of Risks – Systematic vs Unsystematic Risk.
	UNIT – II	Economic, Industry, and Company Analysis (EIC Framework) – Financial Statement Analysis – SWOT Analysis – Ratio Analysis – Intrinsic Value Estimation (DDM and P/E-based valuation).
	UNIT – III	Dow Theory – Chart Patterns – Technical Indicators – Moving Averages – Relative Strength Index (RSI) – MACD – Support and Resistance Levels – Difference Between Technical and Fundamental Analysis.
	UNIT – IV	Investment Objectives & Constraints – Portfolio Construction and Selection – Portfolio Risk and Return – Markowitz Model – Security Market Line – Portfolio Revision Strategies.
	UNIT – V	Efficient Market Hypothesis – Weak, Semi-Strong, and Strong Form Efficiencies – Measuring Methods of Risk & Return – Capital Asset Pricing Model (CAPM) – Performance Evaluation: Sharpe Ratio, Treynor Ratio, Jensen's Alpha.

Books and References:

1. Fischer, Donald E. & Jordan, Ronald J. – Security Analysis and Portfolio Management, Pearson
2. Singh, Rohini (2017): Security Analysis and Portfolio Management, (2nd Edition). Excel Books.
3. Ranganathan, M., & Madhumathi, R. (2006). Investment Analysis and Portfolio Management. Pearson Education
4. V.K. Bhalla – Investment Management
5. Prasanna Chandra – Investment Analysis and Portfolio Management, McGraw Hill
6. Reilly, F. K. & Brown, K.C. (2012) Analysis of Investments and Management of Portfolios, Cengage India Pvt. Ltd.

SEMESTER – III	MANB 506F	FINANCIAL DECISION ANALYSIS
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBER	Define key financial decision tools including regression analysis, simulation techniques, and inventory models like EOQ and price break.
CO2	UNDERSTAND	Explain concepts related to capital expenditure under risk, leasing types, dividend models, and corporate reorganization.
CO3	APPLY	Apply cost-volume-profit analysis, linear programming, and goal programming techniques to solve business and financial decision-making problems.
CO4	ANALYZE	Analyze corporate debt capacity, mergers & acquisitions, and replacement decisions using financial and valuation metrics.
CO5	EVALUATE	Evaluate dividend policies, goodwill valuation, and takeover strategies to support long-term financial planning.

UNIT – I	Regression Analysis - Simulation technique - Business failure and reorganization cost- volume profit analysis
UNIT – II	Capital Expenditure Decision under risk and uncertainty. Leasing-Finance and operating lease- single investor & leverage lease.
UNIT – III	Corporate Debt capacity management - Mergers & Acquisition- take over valuation of Goodwill & share
UNIT – IV	Sequencing decisions- Replacement decisions - Dividend Policy Models
UNIT – V	Linear Programming - Goal Programming (Application) - Inventory models EOQ & Price Break.

Books and References:

1. V.K. Bhalla - Financial Management & Policy.
2. Harold Bierman - Lease Vs Buy decision.
3. Levy H. & Sarnat H.-Capital Investment & Financial Decision
4. Van Horn James c-Financial Management Policy.

SEMESTER–IV	MANB508	ENTREPRENEURSHIP DEVELOPMENT
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain the nature of entrepreneurs, challenges they face, and the role of individuals in entrepreneurial success.
CO2	APPLY	Apply the process of new venture creation, including idea generation, legal frameworks, and business plan development.
CO3	ANALYZE	Analyse various sources of finance and institutional support systems for entrepreneurial ventures.
C04	EVALUATE	Evaluate the role of government institutions and policies in fostering entrepreneurship development and MSME growth.

UNIT–I	Nature and importance of Entrepreneurs. The Entrepreneurial and Entrepreneurial Mind. Challenges in entrepreneurship. The Individual Entrepreneur. Theories of Entrepreneurship – Innovation Theory by Joshep Schumpeter, Theory of Profit by Frank Knight, Theory of High Achievement by David Mc Clelland.
UNIT–II	Forms of ownership, Business Idea Generation, Steps in a Start- Up Process; Legal Framework for a starting New Venture; Details of a Business Plan Development for a New Venture Creation.
UNIT–III	Feasibility report, Project management Techniques. Sources of Finance – Institutional Support, Development Finance, Venture Capital, Financial Schemes offered by Commercial Banks. Consultancy organizations.
UNIT–IV	Role of Central and State Government in Entrepreneurship Promotion. Role of DIC, SISI, MSME, MCED, NIESBUD, NEDB. Strategies for Going Public and Ending the Venture.
UNIT–V	The nature of international entrepreneurship, Importance and challenges of international business to the firm. International versus domestics' entrepreneurship.

Books and References:

1. David H. Holt-Entrepreneurship–New Venture Creation, Prentice Hall of India Pvt. Ltd. New Delhi, 2004
2. Rajeev Roy-Entrepreneurship, Oxford University Press, New Delhi, 2009
3. Robert D. Hisrich & Michael P. Peters-Entrepreneurship–International Edition by McGraw Hill, New York, 2002
4. Vasant Desai, Dynamics of Entrepreneurship Development, Himalaya Publication house
5. S.S. Khanka, Entrepreneurial Development S. Chand & Company Ltd. New Delhi

SEMESTER IV 3 CREDITS	MANB509	QUALITY MANAGEMENT
		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Understand quality principles and apply them across manufacturing, services, and business functions.
CO2	APPLY	Apply quality control techniques, evaluate service quality, and analyze process inspections and their limitations.
CO3	ANALYZE	Analyze TQM, Toyota Production System, and quality models in Japan and India, applying lean principles in various sectors.
CO4	EVALUATE	Evaluate quality approaches in Japan and India, focusing on TQM, Toyota Production System, Lean principles, and frugal innovation in manufacturing and services.
CO5	CREATE	Develop an understanding of global quality accreditations, such as ISO series, and their role in achieving operational excellence and environmental consciousness.

UNIT 1	Basic Concepts of Quality Management: Defining quality, Evolution of Quality Principles, Quality in manufacturing versus quality of services, Quality in functional - Marketing, Operations, HRM, Finance etc.
UNIT 2	Product Quality: Evolution of product quality principles, Quality Control in production and its limitations, Addressing limitations of quality control, Cost of Quality. Service Quality: Role of services in global & Indian economy, measuring service quality, limitations of quality control & quality assurance in service quality measurement, Tools to measure Service quality, Case. Process Quality: Role of inspections in ensuring quality and its limitations, integrating inspections into the process, process documentation, flowcharting a process, measuring a process, Price of Non Conformance.
UNIT 3	Improving Quality: Deming's Approach to Quality, Juran's Approach to Quality, The seven tools of quality, Quality improvement at GE and AT Kearney. Master Production Scheduling-Materials Requirement Planning Optimized Production; 5- S, Kaizen; Just — in — Time System; Kanban, Supply Chain Management; Toyota Production System, Six Sigma & other Operational Techniques,
UNIT 4	Quality Approaches at Japan: Rise of Japanese economy & role of automotive sector in Japan, TQM in Japan, Evolution of Toyota Production System, Modern versions of Toyota Production System, Application of Lean principles to Manufacturing & Services Quality Approaches in India: A study of top Indian organizations, quality in low cost models, Quality in IT/ITES, Use of models in raising product & service quality. Emergence of Frugal Innovation etc.
UNIT 5	Quality Accreditations Global Competitiveness Index, ISO 9000, 9001 Series, ISO-TS 16949, Environment Consciousness, Operational Excellence with Environment, ISO-14001, OHSAS 18001 Series & other ISO Series.

Books and References:

1. Chary, S N. Production and Operations Management. New Delhi, Tata McGraw Hill, 1999.
2. Quantitative Techniques by PC Tulsian & Vishal Pandey, Pearson Education,

3. Quality esFree by CrosbyPhilip B, A Mentor Book.

SEMESTER – IV	MANB	FINANCIAL SERVICES
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBER	Define key terms and concepts related to financial services, such as leasing, mutual funds, securitization, and digital finance.
CO2	UNDERSTAND	Describe the structure, evolution, and regulatory roles of RBI, SEBI, IRDAI, and emerging trends like fintech, ESG, and neobanking.
CO3	APPLY	Apply the knowledge of leasing, hire purchase, and consumer finance to understand and compare financial services in real-life business situations.
CO4	ANALYZE	Analyze housing finance, insurance, securitization, and venture capital to identify market risks and opportunities.
CO5	EVALUATE	Evaluate the effectiveness of fee-based financial services such as merchant banking, issue management, and corporate restructuring in influencing business decisions and financial performance.

UNIT – I	Nature, scope and structure of financial services - Evolution and regulatory framework in India (RBI, SEBI, IRDAI) - Role of fintech, digital banking - Emerging trends: ESG investing, digital currencies
UNIT – II	Lease financing: types, accounting & tax implications - Hire-purchase and consumer finance - Regulatory environment and NBFC participation.
UNIT – III	Housing finance and securitization process - Insurance products and distribution channels (including InsurTech) – Venture capital, private equity, and crowdfunding – Banking innovations: digital lending and neobanking.
UNIT – IV	Merchant banking: functions, SEBI guidelines - Issue management: IPO/FPO, book building, anchor investors - Corporate restructuring: mergers, acquisitions, buybacks, delisting - Credit rating agencies: CRISIL, ICRA- stockbroking and digital platforms: full-service vs. discount brokers.
UNIT – V	Mutual funds: structure, types - Concept of NAV, SIP, SWP, risk-o-meter, ETFs, hedge funds: features, performance, compliance - Investment banking: loan syndication, project finance

Books and References:

1. Khan, M. Y. – Financial Services, Tata McGraw-Hill
2. Bhalla, V. K. – Management of Financial Services, Anmol Publications
3. Jeff Madura – Financial Markets & Institutions, Cengage Learning
4. Verma, J.C. – Manual of Merchant Banking, Bharat Law House
5. Bhole & Mahakud – Financial Institutions and Markets, TMH

SEMESTER–IV	MANB	WORKING CAPITAL MANAGEMENT
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSEOUTCOMES
CO1	UNDERSTAND	Describe the working capital operating cycle and its relevance in different business models.
CO2	APPLY	Apply working capital estimation techniques to determine short-term financial needs.
CO3	ANALYZE	Analyze the management of inventory, receivables, and cash using relevant tools.
C04	EVALUATE	Evaluate various sources of short-term finance and policies for financing current assets.
CO5	CREATE	Design effective working capital strategies to ensure liquidity and profitability in a business.

UNIT–I	Components of Current Assets and Current Liabilities – types of working capital - Working Capital Policy – factors determining working capital requirements – Forecasting the working capital requirements – Operation cycle time analysis. Liquidity v/s Profitability. Ratios used in control in working capital.
UNIT–II	Traditional Bank-Based Financing; Cash Credit, Term loan, Bill Discounting, Bill Purchase. Trade Receivables Discounting System (TReDS). Digital Supply Chain Finance. Government-Backed & Priority Sector Lending– MUDRA Loans, Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) Scheme, Business Credit Cards.
UNIT–III	Concept of cash management, Motives for holding cash and marketable securities. Objectives of Cash Management. Factors determining the optimum cash balance. Cash Management Models-Baumol, MillerOrr. Cash Planning.
UNIT– IV	Introduction, Objectives of trade credit, Credit Term and credit policies. Role of factoring in receivables management.
UNIT -V	Types, Cost and Benefits of holding Inventory. Inventory Valuation Methods. Inventory Control Techniques.

Books and References:

1. Bhalla V.K, *Working Capital Management: Text and Cases*, 7th Edition, Delhi, Anmol Publications Pvt. Ltd.
2. Pandey I.M., Financial Management, 12th Edition, Vikas Publications.
3. Prasanna Chandra, Financial Management: Theory and Practice, 14th Edition, Tata McGraw Hill.
4. Hrishikes Bhattacharya, Working Capital Management: Strategies and Techniques, 10th Edition, PHI Learning Private Ltd.
5. James S. Sagner, *Essentials of Working Capital Management*, 1st Edition, Wiley (John Wiley & Sons)

SEMESTER – IV	MANB	FINANCIAL STATEMENT ANALYSIS
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	To Understand the importance of Fund Flow and Cash Flow Statements
CO2	APPLY	To Apply Techniques of ratio Analysis for understanding the Financial Position of the company
CO3	ANALYZE	To Analyse and Examine process of Financial Reporting
CO4	EVALUATE	To Evaluate the use of Annual Reports for Analysing the Financial Statements

UNIT – I	Introduction – Meaning,Objectives, Importance, Types- Characteristics , Use &Limitations Financial Statement Analysis: - Parties interested- Types of Financial Statement Analysis-External Analysis – Internal Analysis- Horizontal – Vertical analysis – Limitations of financial analysis
UNIT – II	Introduction to Funds Flow Statement, Calculating Funds from Operation, Analysis of Funds flow Statement, Importance of Funds Flow Analysis, Introduction to Cash Flow Statement, Calculating Operation / Financing and Investing Activities Importance of Cash Flow Analysis
UNIT – III	Ratio Analysis: Meaning — Nature- Guidelines or precautions for use of ratios- Uses and significance of ratio analysis- Limitations of ratio analysis ,Types of Ratios- Analysis of short term financial position or test of liquidity — Analysis of Activity ratios- - Analysis of long term financial position
UNIT – IV	Financial Reporting – Meaning – Types - Statutory financial reports -Factors affecting statutory financial reports- Monitoring and enforcement mechanisms - Alternative sources of information- Desirable qualities of accounting information- Recent developments in Financial Reporting in India
UNIT – V	Understanding Annual Report of a Company; Director's Report, Management Discussion and Analysis, Notes to Account, Importance and Fundamentals of Research Report

Books and References:
1. Financial Management - Prasanna Chandra
2. Financial Management - I.M. Pandey
3. Financial Management - Khan & Jain
4. Corporate Finance - Brealey & Mayers
5. Techniques of Financial Analysis - Erich A. Helfert (Tata McGraw Hill)

SEMESTER – IV	MANB	CORPRATE TAXATION
3 CREDITS		Mandatory/Discipline Specific Core (DSC) (Finance)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	ToUnderstand the basics concepts of Assessment and Previous year
CO2	APPLY	To Apply income tax Provision in calculating the income tax liabilities
CO3	ANALYZE	To Analyse the Set off and Carry Forward of Losses under various heads for computation of Total Income
C04	EVALUATE	To Evaluate the implications of Tax Planning for Company Assessee Only.

UNIT – I INTRODUCTION	Definition of Income and Assessee Previous year Assessment Year Gross total Income, Residential Status, incidence of Tax, Capital and Revenue Receipts
UNIT – II EXEMPT INCOMES AND TDS	Income Exempt from Tax, Tax Rebates Deduction relating to company Assessee Only Set off and Carry Forward of Losses, TDS, Self-Assessment Tax, Filling of Return
UNIT – III HEADS OF INCOME	Income from Salary, Income from Business or Profession, income from Capital Gains, Income from Other Sources relating to Company Assessee Only,
UNIT – IV TAX PLANNING WRT BUSINESS	Tax Planning with Reference to Setting up of New Business, Financial Management Decisions and Employee Remuneration
UNIT – V TAX PLANNING WRT DIVIDEND POLICY	Tax Planning regarding Dividend Policy, additional Tax on Undistributed Profits, Computation of Tax Liability of Company.

Books and References:

1. Ahuja GK and Gupta Ravi, Systematic Approach to Income tax, Allahabad Bharat Law House
2. Bhagwat Prasad Direct Tax Laws and Practice Wishwa Prakashan
3. Singhania, VK Direct Taxes Law and Practice, Delhi Taxman
4. Sarinivas E.A Handbook of Corporate Tax Planning New Delhi Tata McGraw Hill
5. Ranina H.P Corporate Taxation A Handbook 2nd Edition, New Delhi Oriental Law House

SEMESTER – III 3 CREDITS	MANB 503M	CONSUMER BEHAVIOUR

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	To acquaint students with Consumer Behaviour concepts and applications
CO2	APPLY	To give the students a perspective to understand the application of market research in framing effective marketing strategies.
CO3	ANALYZE	To analyse personal, socio-cultural, and environmental dimensions that influence consumer decisions making.
CO4	EVALUATE	In a team, work effectively to prepare a research report on consumer behaviour issues within a specific context.

UNIT – I Scope and Applications of CB	Introduction to Consumer Behaviour, Concept, Scope and their applications. Information search Process, Evaluative Criteria and Decision Rules, Building Customer satisfaction.
UNIT – II Consumer Attitude and Behaviour	The nature of consumer's attitude; structural models of attitudes, measurement of attitudes, social class and consumer behaviour; the measurement of social class, life style profiles of the social classes
UNIT – III Decision Making Process and Models of CB	- What is Consumer Decision - Consumer Decision Making Process - Levels of Consumer Decision Making - Models of Consumers: Four Views of Consumer Decision Making - Types of Decision Process.- The Sociological Model - The Howard Sheth Model of Buying Behaviour - The Nicosia Model - The Engel-Kollat-Blackwell Model
UNIT – IV Consumer Motivation and Perception	Consumer Motivation, needs and goals, Positive and Negative Motivation, Dynamic nature of Motivation, Consumer Perception, Conceptual Frame Work, Cultural Influence, Dynamism of culture.
UNIT – V Diffusion of innovations and Applications Of CB	Diffusion of innovations; the diffusion process, the adoption process, a profile of the consumer innovator consumer behaviour, application for profit and Non-profit service Organisation

SUGGESTED READINGS:

- Consumer Behavior - Insights from Indian Market MajumudarRamanuj, PHI, 2nd Edition.
- Consumer Behavior, Blackwell and Engel, Cengage Publication, Indian Edition
- Hawkins, Best and Coney: Consumer Behaviour, Tata McGraw Hill, New Delhi.
- Schiffman, L.G. and Kanuk, L.L.: Consumer Behaviour, Prentice Hall of India.
- Laudon, David L and Bitta Albert J Della: Consumer Behaviour, Tata McGraw Hill, New.
- Mowen, John C: Consumer Behaviour, Macmillan, New York.

SEMESTER – III 3 CREDITS	MANB 504M	ADVERTISING MANAGEMENT

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	DEFINE THE CORE CONCEPT OF ADVERTISING ITS ROLES AND ASPECTS OF ADVERTISING
CO2	UNDERSTAND	CATEGORIZE ADVERTISING COMMUNICATION AND SUMMARIZE THE MODELS ALONG WITH COMMUNICATION FLOW AND THEORIES.
CO3	APPLY	DETERMINE ADVERTSING STRATEGIES.
C04	ANALYZE	EXPLAIN THE IMPORTANCE OF CREATING AN ADVERTSIEMENT AND VARIOUS FACTORS AND FORMS OF ADVERTISING
C05	EVALUATE	EVALUATE ADVERTISING EFFECTIVENESS THROUGH VARIOUS TOOLS ANDS APPROACHES

UNIT – I	Advertising, definition, Origin and growth of Advertising. Functions of advertising, Role of advertising in Marketing process. Legal ,Ethical ,Social, and economic aspects of advertising,Advertising-Retail,National,Co-opertative,political,International,public serving advertising.
UNIT – II	Advertising and process of communication: Wilbur Schramm's Model, Two step flow of communication, Theory of cognitive dissonance and clues for advertising strategists.
UNIT – III	Segmentation and positioning, Media, Types of Media, Media strategy and Media planning, Media factors, Media Mix, Media evaluation, Budgeting.
UNIT – IV	Constructing an Advertisement, Visualization, Creative visualization, process of visualization, Qualities of visualizer, Message. Head line, Copy, Logo, Illustration, Appeal, Layout, slogans. Integrated marketing communication, Internet Advertising- Forms of internet advertising.
UNIT – V	Evaluation of advertising-Evaluating advertising effectiveness through pretext, post-test, Recognition Test, Recall Test, DAGMAR Approach.

SUGGESTED READINGS:

- C N Sonatakki,etc ADVERTISING, Second Revised and enlarged edition
- ,Kalyani publishers, 1996.
- S H HKazm,Satsh K Batra, Advertising and Sales promotion, Edition 2, published by Anurag Jain fro Excel Books,2001,2004.
- U.C.Mathur,Advertising Management, Revised Second edition,New Age International publishers,2005.
- Kruti Shah,Alan D'souza,Advertising and promotions an IMC Perspective,TataMcgraw Hill Education private Limited,New Delhi,2009.
- Beleh, George E and Beleh, Michael A. Introduction to Advertising and Promotion. 3'd ed., Chicageo Irwin., 199s.
- Borden, William H. Advertising. New York, John Wiley,

SEMESTER III	MANB505M	BRAND MANAGEMENT
3 CREDITS		

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	DEFINE THE CORE CONCEPT OF BRAND MANAGEMENT AND ITS ROLES
CO2	UNDERSTAND	CATEGORIZE BRAND BUILDING STEPS AND SUMMARIZE BRAND BUILDING AND BRAND POSITIONING.
CO3	APPLY	DETERMINE BRANDING STRATEGIES.
C04	ANALYZE	EXPLAIN THE IMPORTANCE OF BRAND EQUITY.
CO5	EVALUATE	ASSESS THE MANAGEMENT OF BRANDS AND CONSUMER BEHAVIOUR.

UNIT 1	Brand & Brand Management: Commodities Vs Brands, The role of brands, The brand equity concept, Brand Identity and Brand image.
UNIT 2	Brand Positioning & Brand Building: Brand knowledge, Brand portfolios And market segmentation, Steps of brand building, Identifying and Establishing brand positioning, Defining and establishing brand values.
UNIT 3	Designing & Sustaining Branding Strategies: Brand hierarchy.Brand extension and brand transfer, Managing brand over time.
UNIT 4	Managing Brand Equity: Brand Reinforcement, Brand Revitalization. Brand Crisis
UNIT 5	Managing Brands over time - Brand Positioning and Consumer Behaviour -Retail Brands Vs Manufacturers' Brands.

SUGGESTED TEXT BOOKS/CASES/READINGS:

Successful Branding - Pran K Choudhary

Brand Positioning Strategies for Competitive Advantage -Subrato Sen Gupta.

Strategic Brand Management -Caperer

Behind Powerful Brands – Jones

Managing Indian Brands -S. Ramesh Kumar

SEMESTER – III	MANB 506M	SALES & CRM
3 CREDITS		

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	DEFINE THE CORE CONNCEPT OF SALES MANAGEMENT AND ITS OBJECTIVES
CO2	UNDERSTAND	CATEGORIZE SALES TRAINING, COMPENSATION, SUPERVISION AND MOTIVATION OF SALES FORCE.
CO3	APPLY	DETERMINE SALES STRATEGIES AND EFFORTS.
CO4	ANALYZE	EXPLAIN THE IMPORTANCE OF CRM AND ITS TERMINOLOGIES.
CO5	EVALUATE	EVALUATE CRM IMPLEMENTATION AND ITS IMPORTANCE IN VARIOUS SECTORS.

UNIT – I	Nature and Scope of Sales Management ; Setting and Formulating Personal Selling Objectives; Recruiting and Selecting Sales Personnel
UNIT – II	Developing and Conducting Sales Training Programme; Designing and Administering Compensation Plans; Supervision of Salesmen; Motivating Sales Personnel; Sales Meetings and Sales Contests
UNIT – III	Designing Territories and Allocating Sales Efforts; Objectives and Quotas for Sales Personnel; Developing and Managing Sales Evaluation Program; Sales Cost and Cost Analysis
UNIT – IV	An Overview of Customer relationship Management(CRM),Meaning and definition of CRM, Dimensions of CRM-Nature of CRM,-Goals of CRM, Advantages of CRM, Importance of Customer -Consumer Behavior
UNIT – V	CRM Implementation-Comprehensive model-Developing CRM vision and Strategy Management Support., CRM in Services in Services Marketing Service Delivery —CRM in Banking-CRM in Insurance-CRM in Hospitality

SUGGESTED READINGS:

- Anderson, R. Professional Sales Management Englewood Cliffs, New Jersey, Prentice Hall inc. 1992.
- Anderson, R. Professional Personal Selling. Englewood Cliffs, New Jersey, Prentice Hall Inc., 1991.
- Buskirk, R H and Stanton, W.J. Management of Sales Force. Homewood Illinois, Richard D. Irwin, 1983.
- Dalrymple, D J. Sales Management Concept and Cases, New York, John Wiley, 1989.
- Johnson, E M etc. Sales Management: Concepts, Practices and Cases. New York, McGraw Hill, 1986
- Stanton, William J etc. Management of a Sales Force., Chicago, Irwin, 1995.

| SEMESTER IV | MANB503M | DIGITAL MARKETING |
| 3 CREDITS | | |

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	DEFINE THE CORE CONCEPT OF DIGITAL MARKETING
CO2	UNDERSTAND	RELATE MARKETING STRATEGIES BASED ON ONLINE CONSUMER BEHAVIOUR AND EXPECTATIONS.
CO3	APPLY	DETERMINE ONLINE RETAILING, SHOPPING AND ADVENT OF E-COMMERCE.
C04	ANALYZE	EXPLAIN THE IMPORTANCE OF SEO, SEM AND SOCIAL MEDIA MARKETING.
CO5	EVALUATE	ASSESS THE ROLES AND USES OF MOBILE MARKETING ALONG WITH OTHER DIGITAL MARKETING TOOLS.

UNIT 1	Introduction to Digital Marketing; the Internet and its development, Benefits and Challenges of Digital Marketing and its Comparison with Conventional Marketing, Ten Cs for Internet Marketers, Marketing Funnel in digital context.
UNIT 2	Online Buyer Behavior : Introduction , benefits and challenges ; understanding Buyer Behavior , Online Customer Expectations , Online Customer B2C Buyer Behavior, Online B2B Buyer Behavior
UNIT 3	Online Shopping/Retailing ;Emergence and benefits of Online Retailing, Types of Online Retailers, Business Models of Online retailing; Opportunities and Challenges of Online Retailing.
UNIT 4	SEO and SEM, Importance of business website, Online Social Influence Marketing ,Introduction to Social Media Marketing ,Its benefits and challenges; Types of Social Media Marketing ,Facebook Marketing, Instagram Marketing, YouTube Marketing, X (twitter) Marketing, Google marketing, LinkedIn Marketing.
UNIT 5	Mobile Marketing: Introduction to Mobile Marketing; Growth of Mobile Industry, Benefits of Mobile Marketing, Mobile Marketing Goals , Email Marketing, affiliate Marketing , AI and automation in marketing, ethical/inclusive marketing and data privacy.

SUGGESTED TEXT BOOKS/CASES/READINGS.

1. RicharGay , Alan Charlesworth, and Rita Esen,Online Marketing a Customer — led approach , Oxford University Press ,2007
2. Dr. AkshavK.Nayak and Dr.AvinashChiranjeev, INTERNET MARKETING,JnanadaPrakashan(P&D),New Delhi, 2010
3. R Prasad ,Digital Marketing —Concepts and Experiences,ICFAI Press, Andhra Pradesh ,2002
4. Pramod M Mantravadi , E-Marketing, The Emerging trends,, ICFAI Press, Andhra Pradesh ,2002.
5. Archana Mehta and S Sreedari, Online Retailing A New Paradigm, ICFAIPress, Andhrapradesh,www.books,iupindia.org, 2008.

| SEMESTER IV | MANB504M | MARKET RESEARCH |
| 3 CREDITS | | |

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	REMEMBERING	DEFINE MARKET RESEARCH AND ITS TYPES.
CO2	UNDERSTAND	CATEGORIZE THE APPLICATIONS OF MARKET RESEARCH
CO3	APPLY	DETERMINE THE SAMPLING PROCESS AND METHODS.
C04	ANALYZE	EXPLAIN METHODS OF DATA COLLECTION.

UNIT 1	The Marketing Research System - Definition of MR - Basic and Applied Research – The Marketing Research Process - Types of Research - Steps in Marketing Research Process - Research Design - Data Sources - Marketing Information System.
UNIT 2	Application of Marketing Research: Product Research – Motivation research – Advertising Research – Sales Control Research – Rural Marketing research - Export Marketing research.
UNIT 3	Sampling Process in Marketing Research– Sampling Design and Procedure – Sampling Methods – Non probabilistic sampling Techniques – Probabilistic sampling Techniques - Sample Size determination
UNIT 4	Data Instruments - Data Collection- Online data collection - Collection of Secondary Data – Collection of Primary Data Methods - Report Writing and Presentation of Data.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Naresh K. Malhotra, MARKETING RESEARCH: AN APPLIED ORIENTATION,

Pearson Education, Asia.

Paul E. Green & Donald S. Tull, RESEARCH FOR MARKETING DECISIONS. PHI Learning Private Limited, New Delhi, 2009

Donald R. Cooper & Schindler, MARKETING RESEARCH CONCEPT & CASES, Tata McGraw-Hill Publishing Company Limited, new Delhi, 2006

S.C. Gupta, MARKETING RESEARCH, Excel Books India, 2007

| SEMESTER – IV | MANB 505M | Industrial Marketing |
| 3 CREDITS | | |

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	To help the learner distinguish between consumer marketing and industrial marketing
CO2	APPLY	To learn to formulate industrial marketing strategies and also design industrial marketing mix elements
CO3	ANALYZE	To analyse components of strategy, channel strategy, marketing communication & pricing
C04	EVALUATE	To teach the concept of demand for industrial goods and services in the market.

UNIT – I Basics of Industrial Marketing	Nature of Industrial Marketing: Industrial Marketing Vs. Consumer Marketing Relational approach to Industrial Marketing- The Nature of Industrial Demand & Industrial Customer. Introduction to different types of Industrial Products: Major Equipment; Accessory Equipment; Raw and Processed Materials; Component Parts and Sub-Assemblies; Operating Supplies; Standardized and Non-standardized parts. Industrial services
UNIT – II Classification and Pricing of Industrial Products	Classification of Industrial Products and Services - New Product Development and Introduction - Industrial Product Management - Pricing Decisions in Industrial Markets.
UNIT – III Channel Optimization	Channel Participants; Channel Functions and Dual Channels; Choosing the Right Distributor; Distribution and Manufacturers' Representatives.
UNIT – IV Logistics and Marketing Control	Purchasing Practices of Industrial Customers in Indian Context; Marketing Logistics; Physical Distribution and Customer Services; Marketing Control.
UNIT – V Strategy Implementation	Understanding Strategy Formulation and Strategy Implementation; Industrial Marketing Strategy Components; Industrial Marketing Strategy in India; Industrial Marketing Research for New Product Development.

SUGGESTED READINGS.

- Industrial Marketing: A Process of Creating and Maintaining Exchange by KrishnamacharyuluCsg, Lalitha R, Publisher: Jaico Book House
- Industrial Marketing by Ghosh, Publisher: Oxford University Press
- Industrial Marketing 2e by K. K. Havaldar, Publisher: Tata McGraw-Hill Publishing Company limited
- Industrial Marketing Management by Govindarajan, Publisher: Vikas Publishing House Pvt Ltd.
- Industrial Marketing by Phadtare M. T, Publisher: Prentice Hall of India Private Limited 6. Industrial Marketing Text Book: ICMR

SEMESTER – IV	MANB506M	MANAGEMENT OF SERVICES
3 CREDITS		

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	To understand the special characteristics of services relevant for marketing
CO2	APPLY	Practicality of service design and service standards.
CO3	ANALYZE	To analyse the customer satisfaction and complaint management in services
CO4	EVALUATE	To evaluate the financial implications of improvement in services

UNIT – I Service Marketing and Its Characteristics	Marketing of Services - Introduction - Growth of the Service Sector - The Concept of Service - Characteristics of Services - Classification of Services - Designing the Service Blueprinting, Using Technology - Developing Human Resources - Building Service Aspirations.
UNIT – II Challenges in Service Marketing	Unique Characteristics of Services and Problems Associated with Services Marketing on Account of these. Overcoming Challenges Associated with Services Marketing. Goods-Service Categorization. Types of Services- Core and Supplementary.
UNIT – III Marketing Mix and distribution of Services	Marketing mix in services marketing - The seven Ps - Product Decisions - Pricing Strategies and Tactics - Promotion of Services and Placing or Distribution Methods for Services - Additional Dimensions in Services Marketing - People, Physical Evidence and Process – Internet as a service channel.
UNIT – IV Quality Of Services	Delivering Quality Services - Causes of Service-Quality Gaps - The Customer 2 Expectations versus Perceived Service Gap - Factors and Techniques to Resolve this Gaps in Service - Quality Standards. Factors and Solutions - The Service Performance Gap Key Factors and Strategies for Closing the Gap - Developing Appropriate and Effective Communication about Service Quality.
UNIT – V Managing Relationships	Building customer relationship through retention strategies, Relationship marketing, Evaluation of customer relationships, Benefits of customer relationship; Market segmentation - Basis and targeting in services; complaint handling and service recovery

SUGGESTED READINGS.

- Valarie A. Zeithmal& Mary Jo Bitner- Services Marketing - TMH.
- Christopher Lovelock- Services Marketing- Pearson Education.
- Ravi Shanker, SERVICES MARKETING: THE INDIAN PERSPECTIVE, Excel Books, New Delhi,
- RajendraNargundkar, SERVICES MARKETING: TEXT & CASES, Tata McGraw-Hill Pubishing Company, New Delhi,

Semester I	MANB504H	Human Resource Planning
3 Credits	L.T.P 2:1:0	Discipline Specific Elective (DSE) (HR)

CO#	Cognitive Ability	Course Outcome
CO1504H	Remembering	Recall the fundamental concepts and functions of Human Resource Planning.
CO2504H	Understanding	Explain the strategic importance of HR forecasting, succession planning, and workforce analytics.
CO3504H	Apply	Apply HRP models and techniques to assess workforce demand and supply in organizational contexts.
CO4504H	Apply	Apply career planning techniques and organizational development principles to design strategies that enhance employee development and support organizational growth
CO5404H	Evaluate	Evaluate the organization's Planning program

Unit I	Philosophy of Human Resource Planning- Importance, Definition, Needs, Objectives, Scope & Benefits of HRP, Human Resource Planning Process, Factoraffecting HRP, HRP Tools, Strategic HR planning, objectives of strategic HR
Unit II	Macro and Micro Level Human Resource Planning, Manpower planning Models:Markov Model, Renewal Model, Simulation, Manpower Demand forecasting,Manpower supply Analysis, Different methods of Wastage Analysis, EmployeeRe- deployment & Employee Retention Strategies, Exit Strategies.
Unit III	Career Planning & Development: Definition, importance, objectives of careerdevelopment, career planning & development process, career,Succession planning,Organization Development
Unit IV	HRIS concept, importance and significance of HRIS, Stages of Development in HRIS, HRIS Modules, HRIS for HRP. - Various Methods of Valuation of Human Resources — HR Accounting and Audit
Unit V	Emerging Trends in HRP, HR's role as strategic Partner, Balance scorecard

Recommended Books:-

1.Dr.L.M Prasad, Human Resource Management, Sultan Chand & Sons,2ndEddition Reprint 2009.
2. Dr.P.CTripathi, Human ResourseDevolopment,Sultan Chand & Sons 5th Revised Edition Reprint 2009.
3. Dr.C.BGupta,HumanResourseManagement,Sultan Chand & Son's,2009.
4. H.JohnBernardin,FloridaAtlantic,UbocaRaton,

HumanResourseManagement,McGraw Hill,2001.
5. Dipak Kumar Bhattacharya, Human Resource Planning, ExelBooks,2012.
6. BiswanathGhosh, Human Resource development &Management,Vikas
Publication 2008.

SEMESTER – III	MANB505H	Performance and Compensation Management
3 CREDITS	L.T.P 2:1:0	Discipline Specific Elective (DSE) (HR)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remembering	Recall basic concepts related to performance, performance management, compensation, and wage structures.
CO2	Understanding	Explain the process of performance management and planning, and describe appraisal methods and compensation structures.
CO3	Applying	Apply appropriate methods of performance appraisal, performance planning, and compensation techniques in organizational scenarios.
CO4	Analyze	Analyze the effectiveness of performance and compensation management systems and identify issues such as appraisal failures and planning barriers.

UNIT – I Basic Concepts	Concept of Performance, Performance Appraisal, Potential Appraisal and Performance Management, Compensation, Wage, Incentive ,Salary Determinants of Performance, Performance management cycle
UNIT – II Performance Management Process	Performance Management Process, Performance Planning, Meaning of Performance Planning, Characteristics of Performance Planning, Objectives of Performance Planning, Importance of Performance Planning, Methodologies of Performance Planning, Process of Performance Planning. Barriers to Performance Planning, Overview of Competency Mapping
UNIT – III Performance Appraisal	Meaning of Performance Appraisal, Methods of Appraisal; Traditional Methods and Modern Methods, Why performance appraisal fails-Halo effect, Shift from Performance Appraisal to Potential Appraisal, Appraisal Interview and Follow up
UNIT – IV Job Evaluation	Objectives, Principles of job evaluation program procedure, methods/techniques, advantages, problems merit rating, need for remuneration
UNIT – V Compensation Management	components of compensation, Concept of Wages and Salary, Minimum Wages, Fair Wages and Living Wages, Understanding Elements of Compensation Structure : Fixed Pay , Variable Pay , Cash Benefits , Incentives , Executive Compensation , Stock Options Understanding Salary Slip

SUGGESTED READINGS.

- 1.R.K.Sahu,Performance Management System,Excel Books,2007
- 2. T.V.Kao,Appraising& Developing Managerial Performance,Excel Books,2007
- 3.Sarma A.M.Performance Management Systems,Himalaya Publication House,2008
- 4.P.Subba Rao,Personnel and Human Resource Management Text and Cases,Himalaya Publishing House 4th Revised and Enlarged Edition 2010,2011

- Compensation planning, George T Mulkovich& Jerry Newmann, McGraw Hill Publication
- Compensation and reward management, B. D. Singh, Excel Publication

Semester III	MANB506H	Strategic HRM
3 Credits	LTP: 2:1:0	Discipline Specific Elective (DSE)(HR)

CO#	Cognitive Abilities	Course Outcome
CO1506H	Remembering	Students will recall and identify the fundamentals of SHRM, including its purpose and evolution.
C02506H	Understanding	Students will describe how SHRM integrates with business strategies to drive performance and competitiveness.
CO3506H	Apply	Students will use strategic tools to support decision-making and human capital development.
CO4506H	Analyze	Students will assess how economic, legal, technological, and global forces influence HR strategic choices.
CO5506H	Evaluate	Students will evaluate the effectiveness of various strategic HR initiatives such as talent management, leadership development, and performance management systems.

Unit I	SHRM-Scope of SHRM – Role of Strategic HRM- Factors Influencing SHRM- Strategic HRM vs. Traditional HRM – Linking Corporate Strategy with HR System and Practices -HR Capital- Adopting Investment Perspective -Strategic HRM Models and Framework: Life cycle Model, Competitive Advantage Model, VIRO Framework of HRM
Unit II	Cross Cultural Management – Workforce Diversity – Changing Employment relationship: temporary and Contract Labor- Assessment Center-Role of HR in CSR- Efficient Utilization of Human resource – Cross training and Flexible work assignment
Unit III	Overview of Training & Development – Training Model- Classifying Employees for training- Competency Mapping- Human Resource Portfolio- Training of Trainer (TOT)-Talent Management – Career Planning- Succession Planning - Model for creating a training and Development Strategy
Unit IV	Need for Coaching- Role of HR in Coaching – Coaching and Performance- Skills for Effective coaching – Need for Counseling – Role of HR in Counseling – Components of counseling programs
Unit V	Employer Branding and Employee Value Proposition- Benchmarking and Balance Scorecard- HR Audit- Employee Turnover-Employee Engagement

Reference Books-:

- Seema Sanghi , Human Resource Management, Vikas Publishing house pvt.ltd, 2014
- Jeffrey A Mello, Strategic Human Resource Management, Cengage Learning India Pvt.Ltd.2019
- Rees, G., & Smith, P. (Eds). (2021). Strategic human resource management: An international perspective. Sage
- Dr.B.Rathan Reddy, Effective Human Resource Training and Development Strategy, Himalaya Publishing house.2011

SEMESTER – IV	MANB505H	Training and Development
3 CREDITS	L.T.P 2:1:0	Discipline Specific Elective (DSE) (HR)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remember	Define key terms and fundamental concepts related to training and development.
CO2	Understanding	Understand the significance of training and development in HRM
CO3	Apply	Apply instructional design models and training methods based on training needs and contexts
CO4	Analyze	Analyze training needs and effectiveness using different models
CO5	Evaluate	Evaluate training effectiveness using standard models with career development strategies and future training trends

UNIT – I Introduction to Training and Development	Meaning, Importance & Scope of Training, Strategic role of training in HRM, Need and Benefits
UNIT – II Training Need Assessment	Meaning and Objectives of TNA, Levels of Needs Analysis (Organizational, Task, Individual),Need Assessment Process, Aligning Training with Business Strategy
UNIT – IIITraining Program Design& Implementation	On the job and off the job methods, Designing Training Programs (ADDIE Model),Learning Objectives and Curriculum Design, Training Material Preparation, Role of Trainer, Coaching, Mentoring, Use of Technology in Training (LMS, VR, AI in T&D)
UNIT – IV Evaluation of training Programme	Reason For evaluation, Importance of evaluation ,Evaluation planning and data collection, Kirkpatrick's Four-Level Model, ROI on Training, Challenges in Evaluation
UNIT – VFuture Trends in Training and Development	Career Planning and Development,Strategic Talent Development, Trends in Training (AI), Global Training Practices

SUGGESTED READINGS.

- 1.Prior,John,Handbook of Training and Development, Jaico Publishing House, Bombay
- 2.Raymond A. Noe Employee Training and Development McGraw-Hill
- 3.P.Nick Blanchard, Effective Training Systems,strategies and practices Pearson

- 4.B. Janakiram & D. R. Rao Training and Development Text, Research and Cases
- 5.Craig,RobertL Training and Development Handbook,McGraw Hill
- 6.Robert Maribe Branch,Instructional Design: The ADDIE Approach
- 7.Rolf,P and Udai Pareek,Training for Development,SagePublocationsPvt.Ltd
- 8.Dayal,Ishwar,Management Training in Organization,Prentice Hall

SEMESTER – IV	MANB503H	International Human Resource Management
3 CREDITS		

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remembering	Recall fundamental concepts, terminology, and scope of International Human Resource Management (IHRM).
CO2	Understanding	Explain the core functions, approaches, and strategic significance of IHRM in the global business environment.
CO3	Applying	**Apply** IHRM principles in staffing, recruitment, and cross-cultural adaptation in a global context.
CO4	Analyze	**Analyze** international compensation practices and performance management systems for expatriates.
CO5	Evaluate	**Evaluate** expatriate management strategies, including selection, training, and repatriation processes.

UNIT – I Introduction to International Human Resource Development	Concept of IHRM, Evolution of IHRM, Scope ,Difference between Domestic Business and International Business, Expatriate, Understanding Culture, Cultural Sensitivity, Hofstedes Model of Cultural Dimension, Strategies to Manage workforce diversity, Challenges of IHRM
UNIT – II International Recruitment and Selection Process	Global Human Resource planning, Staffing Approaches: Ethnocentric, Polycentric, Geocentric, Regiocentric, Recruitment and selection for IHRM, Issues in supply of international HRM
UNIT – III Training and Development in IHRM	IHRM Training and Development and its necessity, Training Expatriates and HCNs, components of effective pre-departure training, developing staff through international assignments
UNIT – IV Performance and Compensation Management in IHRM	Performance management of International employees, performance appraisal of International employees, Objectives of International compensation, Key components of an international compensation

UNIT – V Expatriation and Repatriation	Expatriation process, Selection and Preparation of Expatriates, Challenges and Adjustments for Expatriates ,Process of Repatriation, Why expatriate fails in the process

SUGGESTED READINGS.

- 1.P.Subba Rao International Human Resource Management Himalaya Publishing House
- 2.Peter.J.Dowling and Others, International Human Resource Management.South Western Publisher edition 2001
- 3. Dennis R. Briscoe, Randall S. Schuler, Ibraiz Tarique International Human Resource Management: Policies and Practices for Multinational Enterprises Routledge
- 4.Gary Dessler (International Edition)Global Human Resource Management Pearson
- 5.Michael Dickmann & Chris Brewster Cases in International Human Resource Management CIPD / Kogan Page

SEMESTER – III	MANB503H	Labour Laws
3 CREDITS	L: T:P-2:1:0	Discipline Specific Elective (DSE)(HR)

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Remembering	Recall the philosophy, objectives, and constitutional basis of labour laws in India
CO2	Understanding	Students will be able to explain key labour laws, trade union roles, dispute resolution, and the impact of technology on compliance.
CO3	Applying	Apply the provisions of labour laws to workplace scenarios such as safety compliance, wage calculation, trade union registration, and use of digital compliance tools.
CO4	Analyzing	To compare different labour legislations, differentiate types of industrial disputes, and analyze challenges in wage structures and technology-driven compliance.
CO5	Evaluating	To assess the effectiveness of labour laws, dispute resolution mechanisms, wage policies, and ethical issues in technology-based compliance.

UNIT – I Introduction to Labour Laws	Philosophy and objectives of labourlaws ,Classification of labourlaws ,Role of the International Labour Organization (ILO) and its influence on Indian legislation, Constitutional provisions related to labour, Emerging issues and future trends in labour laws
UNIT – II The Factories Act 1948	The Factories Act, 1948: Historical background and purpose of the Factories Act, Definition of a factory (Section 2(m)), Applicability and scope of the Act, Objectives: ensuring safety, health, and welfare of workers in factories, Working Hours and Leave, Appointment of Authorities, Penalties and Legal Provisions.
UNIT – III Industrial Relations Laws	Trade Union Act, 1926: Definition, registration, and recognition of trade unions Rights and liabilities of registered trade unions Restrictions on trade union activities Rights of trade unions to represent workers Provisions relating to union funds and office-bearers. Industrial Employment (Standing Orders) Act, 1946:Drafting and certification of standing orders by employers, Conditions of employment, disciplinary procedures, and grievance redressal.

Industrial Disputes Act, 1947:Definition and types of industrial disputes Authorities for dispute resolution: Conciliation officers, Boards, Courts Procedures for reference of disputes Strikes, lockouts, lay-offs, retrenchment, and closures Penalties and legal remedies related to industrial disputes. |

UNIT – IV **Laws of Wages**	The Minimum Wages Act, 1948 Objectives Concept of Minimum Wage, Fair Wage, Living Wage Fixation and revision of minimum wages by Central & State Governments Components of wages (basic, dearness allowance, etc.) The Payment of Wages Act, 1936 objectives of the Act Authorized wage deductions (fines, absence, advances, etc.) Time and mode of payment The Payment of Bonus Act, 1965 Objective and applicability of the Act Disqualifications from receiving bonus The Equal Remuneration Act, 1976 Concept of "Equal Pay for Equal Work" Applicability to recruitment and remuneration Prohibition of gender discrimination in wages and employment terms
UNIT – V **Technology and Labour Law Compliance**	Use of HR - Tech (HRIS) for real-time compliance tracking Role of e-governance (e-Shram, EPFO portal) Data protection and employee monitoring – legal concerns

SUGGESTED READINGS.

A. Surya Deva – *Labour Law and Governance Reforms in India.*

B. R.C. Saxena – *Labour Laws and Social Security.*

C. S.C. Srivastava – *Industrial Relations and Labour Laws.*

D. K.D. Srivastava – *The Payment of Wages Act, 1936 with Commentary.*

E. Pankaj Kumar – *Technology and Labour Law in India: Emerging Trends.*

Semester IV		MANB506H	HR Analytics
CO#	Cognitive Abilities		Course Outcome
CO1506H	Understanding		Explain the **concept, scope, and importance of HR analytics** and its role in transforming HR professionals' functions through key HR metrics.
C02506H	Apply		Apply **HR analytics tools, methods of data capture, and HR dashboards** to interpret HR data effectively.
CO3506H	Analyze		Analyze **recruitment, performance management, compensation & benefits, and learning & development metrics** to evaluate organizational effectiveness.
CO4506H	Create		Design **HR dashboards using MS Excel** (pivot tables, data visualization, slicing & dicing) to present insights for workforce planning and decision-making.
3 Credits		LTP: 2:1:0	Discipline Specific Elective (DSE)(HR)

Unit I	Concept, Scope, Importance & Benefits of HR analytics- HR Analytics & changing role of HR Professionals-Key HR Metrics: Headcount. Attrition, Absenteeism, Time –to –fill ,cost –per -hire, Workforce Planning Metrics, Training & Development Metrics, Compensation & Benefits metrics
Unit II	Understanding HR Analytics & How to conduct HR Anaytics - Introduction to HR Analytics Tools-Methods of capturing data: HR databases and data sources -HR dashboards and scorecards
Unit III	Recruitment & Talent Acquisition Analytics: Sourcing Effectivesness,Time to fill,Cost per hire,Quality of hire,Offer Acceptance Rate.-Performance Management Analytics: 360° feedback Score, productivity measurement, KPI tracking.-Compensation & Benefits Analytics: ROI analysis,Payroll to Revenue Ratio-Learning & Development Analytics: training needs analysis, Training Effectivenss(Kirkpatric Model),Post Training Impact
Unit IV	Dashboards using MS Excel, Slicing and Dicing of HR Data using MS Excel Pivot Table-Data Visualization for key HR Processes. -Workforce planning and forecasting-Prescriptive analytics for HR decision-making
Unit V	Data privacy, security, and ethics in HR analytics- Challenges in implementing HR analytics in organizations-Future of HR analytics: AI, Big Data, Blockchain, and People Analytics

Reference Books-:

- Bassi, L., Carpenter, R., &McMurrer, D. (2012).HR Analytics Handbook. New York: McBassi& Co.
- Bucknall, H. & Wei, Z. (2006). Magic Numbers for Human Resource Management. New Delhi: Wiley.
- Edwards, M.R. & Edwards, K. (2016). Predictive HR Analytics: Mastering the HR Metric. London: Kogan Page.

- McBeath, G. (1992). The Handbook of Human Resource Planning: Practical Manpower Analysis Techniques for HR Professionals. Oxford: Wiley-Blackwell.
- Rama Shankar Yadav & Sunil Maheshwari, HR Analytics, Wiley, 2021.
- Pratyush Banerjee, Jatin Pandey & Manish Gupta, HR Analytics: Practical
- Applications of HR Analytics, Sage, 2019.
- Dipak Kumar Bhattacharya, HR Analytics, Sage, 2017.
- Ramesh Soundrarajan & Kuldeep Singh, Winning on HR Analytics, Sage, 2017.
- Nishant Uppal, Human Resource Analytics, Pearson, 2021.
- Bharti Motwani, HR Analytics: Practical Approach Using Python, Wiley, 2021.

Semester IV	MANB504H	Social Security Laws
3 Credits	LTP: 2:1:0	Discipline Specific Elective (DSE)(HR)

CO#	Cognitive Abilities	Course Outcome
CO1504H	Understanding	Explain the **concept, objectives, and historical development of social security in India**, along with the role of ILO in promoting social security.
CO2504H	Apply	Apply the provisions of the **Employees State Insurance Act, 1948** and the **Payment of Gratuity Act, 1972** to determine compliance requirements, authorities' roles, benefits, exemptions, and penalties in organizational HRM practices.
CO3504H	Analyze	Differentiate between **statutory and non-statutory measures** of social security and analyze their relevance in industrial relations and HRM.
CO4504H	Evaluate	Interpret the provisions of the **Maternity Benefit Act, 1961** and evaluate procedures for claiming benefits, powers of inspectors, and penalty mechanisms.

Unit I	Introduction to Social Security: Concept, meaning, and objectives of social security-Historical development of social security in India-Classification: Statutory vs. Non-statutory measures-Role of International Labour Organization (ILO) in social security-Importance of social security in industrial relations and HRM
Unit II	Employees State Insurance Act ,1948: Authorities under the Act -their powers and functions-Employees State Insurance Fund -Contribution to the fund by the employers & employees, benefits available. conditions under which available, person entitled-Establishment covered under the Act- ESIC Compliance and Penalties
Unit III	Employees Provident Fund Act 1952-Defination, Scope and Object of the Act-Employees Provident Fund Scheme-Penalties, Offences to the companies. -Enhanced punishment in certain cases after previous convection
Unit IV	The Maternity Benefit Act,1961-Applicability, Nature of Benefits and Privileges available under the Act-Procedure for Claiming Payment-Inspectors-Their powers & Functions-Penalties
Unit V	The Payment of Gratuity Act ,1972: Definition, Scope and application of the Act-Controlling Authority-Inspectors, Powers of Inspectors-Penalties, Exemption of employers from liability in certain cases

Reference Books-:

- Ghosh P., Nandan S., *Industrial Relations and Labour Laws*, McGraw Hill Education, 2015, 1st Ed.
- Monappa A., Nambudri R., Selvaraj P., *Industrial Relations and Labour Laws*. McGraw Hill Education, 2012, 8th Ed.
- Supreme Court Journals, Supreme Court Reports & other Reference Journals

Production & Operations Management

Course Objective :

To equip students with the knowledge and analytical skills required to plan, schedule, and control production activities efficiently, ensuring optimal utilization of resources, timely delivery, cost-effectiveness, and competitiveness in manufacturing and service organizations.

Semester III	MANB503P	Production Planning & Control
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Outcomes

CO#	Cognitive Abilities	Course Outcomes
503P.1	Remember	Remember fundamental concepts, objectives, and functions of PPC.
503P.2	Understand	Explain the concepts and types of Production-inventory Systems
503P.3	Apply	Apply forecasting techniques to estimate production demand.
503P.4	Analyze	Analyze and design efficient material requirement planning (MRP) systems.
503P.5	Evaluate	Evaluate production performance through control techniques and KPIs.
503P.6	Create	Develop effective production planning strategies considering capacity, resources, and scheduling.

Unit-I	Introduction to Production Planning & Control) Definition, scope. objectives, and importance of PPC. Functions and phases of PPC: Planning, Routing, Scheduling, Dispatching, Follow-up. Types of production systems: Job, Batch, Mass, Continuous production. Role of PPC in manufacturing and service industries. Relationship between PPC and other functions: Marketing, Finance, HR, SCM.
Unit-II	**Forecasting & Capacity Planning** Demand forecasting: Need, importance, and techniques (qualitative and quantitative). Moving average, exponential smoothing, regression methods. Capacity planning: Concepts, measures, and strategies (lead, lag, match). Capacity requirement planning (CRP). Aggregate production planning – Objectives, strategies, and methods.
Unit-III	**Production Scheduling & Inventory Control** Scheduling: Objectives, types (forward, backward, Gantt charts).

	Sequencing problems and priority rules (FCFS, SPT, EDD, CR). Master production scheduling (MPS). Materials Requirement Planning (MRP I & II). Inventory management: Types, EOQ model, ABC analysis, Safety stock, Reorder point.
Unit-IV	**Modern Trends & Tools in PPC** Just-In-Time (JIT) & Lean manufacturing concepts.Theory of Constraints (TOC). Enterprise Resource Planning (ERP) in PPC.Computer Integrated Manufacturing (CIM).Industry 4.0 in PPC – IoT, AI, Big Data applications.Case studies and best practices in PPC.
Text Books:	1. **S. N. Chary** – *Production and Operations Management*, McGraw-Hill Education. 2. **Norman Gaither & Gregory Frazier** – *Operations Management*, Cengage Learning. 3. **Aswathappa, K. & Shridhara Bhat** – *Production and Operations Management*, Himalaya Publishing House.
Reference Books	1. **Adam, Everett E. & Ebert, Ronald J.** – *Production and Operations Management: Concepts, Models, and Behavior*, Prentice Hall. 2. **Banga & Sharma** – *Industrial Engineering and Production Management*, Khanna Publishers. 3. **Krajewski, Ritzman, Malhotra** – *Operations Management: Processes and Supply Chains*, Pearson Education. 4. **Chase, Jacobs & Aquilano** – *Operations Management for Competitive Advantage*, McGraw-Hill Education.

Course Objective
To equip students with the knowledge and skills to effectively plan, source, and manage materials and supplies, ensuring optimal utilization of resources, cost efficiency, and smooth production processes

Semester III	MANB 504P	Purchasing and Materials Management
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Outcomes

CO#	Cognitive Abilities	Course Outcomes
504P.1	Understand	Explain the fundamental concepts and importance of purchasing and materials management.
504P.2	Apply	Apply tools and techniques for vendor selection, negotiation, and procurement.
504P.3	Analyse	Analyze inventory control methods, material handling systems, and warehouse layouts.
504P.4	Evaluate	Evaluate supplier performance and material requirement planning strategies.
504P.5	Create	Create efficient purchasing policies and materials management systems for organizations

Unit 1	**Introduction to Purchasing & Materials Management** Definition, Scope, and Objectives of Purchasing and Materials Management Role in Production & Operations Management, Purchasing Cycle – Steps, Documents, and Procedures, Organization of Purchasing Department – Centralized vs Decentralized Purchasing, Materials Management Concept – Integration with Other Functions, Legal Aspects of Purchasing (Brief Overview – Contract Laws, Negotiation Ethics)
Unit 2	*Vendor Management & Procurement Process* Vendor Identification, Selection, and Development, Vendor Rating and Evaluation Techniques, Negotiation Strategies – Price, Quality, Delivery Terms, Make or Buy Decisions, Global Sourcing – Opportunities and Challenges, E-Procurement and Digital Purchasing Platforms.
Unit 3	**Inventory & Warehouse Management** Inventory Types – Raw Materials, WIP, Finished Goods, MRO Items, Inventory Control Techniques – EOQ, ABC Analysis, VED, FSN ,Safety Stock and Reorder Levels, Material Handling Systems – Types and Selection Criteria, Warehouse Layout, Design, and Operations, Warehouse Automation –, RFID, and Barcode Systems. Safety and Security Measures in Warehousing – Fire Safety, Theft Prevention, and Hazardous Materials Handling. Packaging and Storage Requirements.
Unit 4	*Strategic Materials Management & Future Trends* Materials Requirement Planning (MRP) and Enterprise Resource Planning (ERP), Just-In-Time (JIT) Purchasing and Lean Inventory Concepts, Supplier Relationship Management (SRM),Green Purchasing and Sustainable Materials Management Risk Management in Purchasing & Supply Chain, Emerging Trends – AI, IoT, and Blockchain in Materials Management.

Suggested Text Books/Cases/Readings:	1. **Baily, P., Farmer, D., Crocker, B., Jessop, D., & Jones, D.** – *Procurement Principles and Management*, Pearson Education. 2. **Gopalakrishnan, P., & Sundaresan, M.** – *Materials Management: An Integrated Approach*, Prentice Hall of India.
Reference Books	1. **Dobler, D. W., & Burt, D. N.** – *Purchasing and Supply Management*, McGraw-Hill Education. 2. **Lysons, K., & Farrington, B.** – *Purchasing and Supply Chain Management*, Pearson Education. 3. **Arnold, J. R. T., Chapman, S. N., & Clive, L. M.** – *Introduction to Materials Management*, Pearson. 4. **Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Patterson, J. L.** – *Purchasing and Supply Chain Management*, Cengage Learning.

Course Objective:

This course aims to equip students with advanced quantitative modeling and analytical skills to solve complex decision-making problems in production and operations management. It focuses on optimization, simulation, and multi-criteria decision-making techniques for effective resource allocation and strategic planning.

Semester III	MANB305P	Service Operations Management -I

Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Outcomes

CO#	Cognitive Abilities	Course Outcomes
505P.1	Understanding	Explain the distinctive characteristics and challenges of service operations in Indian and global contexts.
505P.2	Applying	Apply key service operations frameworks like service blueprinting, queuing theory, and capacity planning.
505P.3	Analyzing	Examine service quality dimensions and customer satisfaction metrics in service businesses.
505P.4	Evaluating	Evaluate strategies for service process redesign, demand forecasting, and yield management.
505P.5	Creating	Design innovative service delivery models using digital tools and operations analytics.

Unit 1	Introduction to Service Operations: Nature and classification of services, key differences between goods and services, role of service operations in the economy, service strategy, Indian service sector overview. Case Study: OYO Rooms – Service standardization across Indian cities
Unit 2	Service Process Design and Delivery: Service blueprinting, process flow diagrams, service scope, physical evidence, and facility layout. Case Study: Barbeque Nation – Standardizing service delivery experience
Unit 3	Managing Service Quality: SERVQUAL, dimensions of service quality, customer satisfaction and complaint management, benchmarking, and TQM in services. Case Study: ICICI Bank – CRM and service quality enhancement
Unit 4	Capacity and Demand Management: Capacity planning, demand forecasting, managing variability, overbooking, yield management, and queue management. Case Study: IRCTC – Managing peak demand during festive seasons
Unit 5	Technology and Innovation in Services: Role of IT in service operations, digital service delivery, AI/ML in services, service analytics, and operations transformation. Case Study: Zomato – AI-driven customer experience management

Suggested Text Books/Cases/ Readings:	1. Fitzsimmons, J.A., & Fitzsimmons, M.J. (2020). Service Management: Operations, Strategy, Information Technology (8th Ed.). McGraw Hill Education.
	2. Metters, R., King-Metters, K., Pullman, M., & Walton, S. (2020). Service Operations Management (2nd Ed.). Cengage Learning.
	3. Chase, R.B., & Apte, U. (2022). Operations and Supply Chain Management in the Service Sector. Pearson India. [Available on Amazon India]
	4. Verma, H., & Sinha, P.K. (2018). Services Marketing: Text and

| | Cases in Indian Context (2nd Ed.). Pearson Education. |

Semester III	MANB506 P	Applied Operations Research
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Objective:

To develop students' ability to apply quantitative and analytical techniques of Operations Research for effective decision-making in production and operations management. The course equips students to model, analyze, and optimize real-world business problems for improved efficiency and resource utilization.

Course Outcomes:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
506P.1	REMEMBERING	Define fundamental concepts, techniques, and models of Operations Research.
506P.2	Understanding	Explain the role of OR in managerial decision-making in production and operations management
506P.3	Applying	Apply OR techniques like linear programming, transportation, assignment, and queuing models to business problems.
506P.4	Analyzing	Analyze real-life case situations using simulation and decision analysis methods.
506 P.5	Evaluating	Evaluate alternative strategies using cost–benefit and optimization criteria for effective operations.

Unit- I:	Introduction to Operations Research & Linear Programming
	Meaning, scope, significance, and applications of OR in decision-making
	Phases of OR study, role in production and operations
	Linear Programming Problem (LPP): Formulation of problems, graphical method
	Simplex method, Big-M method, Two-phase method
	Duality in LPP, sensitivity analysis
	Applications in production scheduling and capacity planning
Unit- II:	Transportation & Assignment Models
	Transportation problem: formulation, initial basic feasible solutions (NWCM, LCM, VAM)
	Optimality test: MODI method, stepping stone method
	Balanced vs. unbalanced problems, degeneracy in transportation
	Assignment problem: Hungarian method, unbalanced assignment, maximization problem
	Applications in logistics, facility location, and resource allocation

Unit-III:	**Queuing Models, Replacement & Inventory Control**
	Queuing Theory: Structure of a queuing system, notation, single server (M/M/1), multiple server models (M/M/c), applications in service operations
	Replacement Models: Replacement of items that deteriorate with time, replacement of items that fail suddenly, group replacement policy
	Inventory Models: Deterministic inventory models (EOQ, EOQ with discounts, reorder level, safety stock)
	Probabilistic inventory models (single-period, newsvendor problem, lead-time models), Applications in production and maintenance planning
Unit-IV:	**Simulation, Decision Theory & Game Theory**
	Simulation: concept, types, Monte Carlo simulation, applications in operations management
	Decision Theory: decision-making under certainty, risk, and uncertainty (EMV, EOL, decision tree analysis)
	Game Theory: pure and mixed strategy games, saddle point, dominance rule, graphical method $(2 \times n, m \times 2)$
	Applications in competitive business strategies, project selection, and operational efficiency

Suggested Text Books:	Taha, H.A. – *Operations Research: An Introduction*, Pearson Education
	Sharma, J.K. – *Operations Research: Theory and Applications*, Macmillan
Suggested References Books:	• Hillier, F.S. & Lieberman, G.J. – *Introduction to Operations Research*, McGraw Hill
	• Wagner, H.M. – *Principles of Operations Research*, Prentice Hall
	• Ravindran, A., Phillips, D.T. & Solberg, J.J. – *Operations Research: Principles and Practice*, Wiley
	• Vohra, N.D. – *Quantitative Techniques in Management*, McGraw Hill

Semester IV	MANB507P	Logistics and Supply Chain Management
Credits : 3	LTP: 3:0:0	Discipline Specific Core
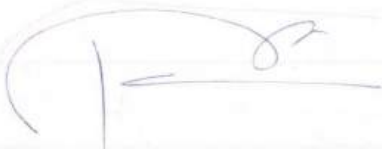
Course Objectives :-

This course aims to provide students with an understanding of the principles, strategies, and practices of logistics and supply chain management. It equips them with the skills to analyze, design, and manage efficient supply chains that create value and achieve competitive advantage.

Course Outcomes

CO#	Cognitive Abilities	Course Outcomes
507P.1	Understanding	Explain the concepts, components, and significance of logistics and supply chain management in business.
507P.2	Applying	Demonstrate the application of logistics and SCM tools in solving business problems.
507P.3	Analyzing	Analyze supply chain performance metrics and logistics operations in real-world organizations.
507P.4	Evaluating	Evaluate various sourcing, warehousing, inventory, and distribution strategies for supply chain optimization.
507P.5	Creating	Design an integrated and efficient supply chain strategy aligned with organizational goals.

Unit 1	Introduction to Logistics and Supply Chain Management : Definition and scope of logistics and SCM, evolution, importance in competitive business environment, logistics vs supply chain, key drivers and participants in supply chain, 3PL, 4PL. Case Study: Amul's Supply Chain Efficiency
Unit 2	Inventory and Warehousing Management : Types of inventory, inventory control models, EOQ, JIT, warehousing functions and types, location and layout decisions, warehouse management systems. Case Study: Big Bazaar's Inventory Management Practices

Unit 3	Transportation and Distribution Management : Modes of transport, freight management, multimodal transport, route optimization, distribution networks and strategies. Case Study: Dabbawala Model of Mumbai
Unit 4	Global Supply Chain and Sourcing : Global logistics, role of INCOTERMS, customs and documentation, global sourcing strategies, supplier selection and relationship management. Case Study: Tata Motors' Global Sourcing Strategy

Suggested Text Books/Cases/Readings:	1. Logistics and Supply Chain Management by Martin Christopher, Pearson Education – 5th Edition 2. Supply Chain Management: Strategy, Planning, and Operation by Sunil Chopra, Pearson – 7th Edition 3. Logistics Management and Supply Chain Management by D.K. Agarwal, Macmillan India – 2nd Edition 4. Essentials of Supply Chain Management by Michael H. Hugos, Wiley – 4th Edition 5. Purchasing and Supply Chain Management by Kenneth Lysons and Brian Farrington, Pearson Education – 9th Edition.

Semester IV	MANB508P	Total Productive Maintenance (TPM)
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Objective:

To provide students with a comprehensive understanding of Total Productive Maintenance, its implementation strategies, and techniques to improve equipment effectiveness, reduce downtime, and enhance overall operational efficiency.

Course Outcomes:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
508P.1	UNDERSTANDING	Understand the fundamental principles of TPM and its role in operational excellence.
508P.2	ANALYSING	Analyze the key losses in production and categorize them for improvement.
508P.3	APPLYING	Apply TPM tools and techniques for maintenance planning and autonomous maintenance.
508P.4	EVALUATING	Evaluate the effectiveness of TPM initiatives using OEE and other performance metrics.
508P.5	CREATING	Develop and implement TPM plans to improve equipment efficiency.

Unit-I:	Introduction to TPM
	• Definition, Objectives, and Benefits of TPM
	• Historical Development and Evolution of TPM
	• Pillars of TPM:- Autonomous Maintenance, Focused Improvement, Planned Maintenance, Quality Maintenance, Education and Training, Safety, Health, and Environment, TPM Implementation Strategy, TPM vs Traditional Maintenance
Unit-II:	TPM Performance Measurement & OEE
	Overall Equipment Effectiveness (OEE) Concept, Calculation and Interpretation of OEE, Six Big Losses and their Impact on Performance, Key Performance Indicators (KPIs) in TPM, Benchmarking TPM Performance TPM Audit and Self-assessment Techniques
Unit-III:	TPM Tools and Techniques
	Autonomous Maintenance Steps , 5S and Workplace Organization in TPM Planned Maintenance and Predictive Maintenance Techniques ,Failure Mode and Effect Analysis (FMEA) , Root Cause Analysis (RCA) and Problem-solving

	Techniques, TPM Software and Technology Integration, Case Studies of TPM Implementation
Unit- IV:	**TPM Implementation and Continuous Improvement** TPM Implementation Roadmap ,Role of Management and Cross-functional Teams, TPM in Lean Manufacturing and JIT Environment, Continuous Improvement Culture in TPM, Success Stories and Lessons from Industries Challenges in TPM Implementation and Mitigation Strategies, Future Trends in Maintenance Management

Suggested Text Books:	• Kumar, Ashutosh, et al. *Industry 4.0: Smart Manufacturing and Digital Transformation*. Wiley, 2020. • Raj, B., et al. *Industry 4.0: Challenges and Opportunities in Production Management*. McGraw-Hill, 2019.
Suggested References Books:	• R. K. Jain, *Industry 4.0 and Smart Manufacturing*, New Age International, 2020. • S. C. Sharma, *Digital Manufacturing and Industry 4.0*, PHI Learning, 2019. • P. K. Ghosh, *Industry 4.0: Concepts, Challenges, and Applications*, McGraw-Hill Education India, 2021.

Semester IV	MANB509P	Service Operations Management -II
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Objective:

This course aims to provide advanced knowledge of service operations strategies, supply chain, and technology-driven service innovations. It enables students to analyze, evaluate, and design efficient, sustainable, and globally competitive service delivery systems.

Course Outcomes:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
509P.1	UNDERSTANDING	Explain advanced concepts of strategic service operations, global outsourcing, and the service-profit chain.
509P.2	ANALYSING	Analyze service supply chain and logistics frameworks to identify performance gaps and improvement opportunities.
509P.3	APPLYING	Apply lean principles, Six Sigma, and process improvement techniques to enhance efficiency in service operations.
509P.4	EVALUATING	Evaluate sustainability, risk, and ethical challenges in service operations for long-term competitiveness.
509P.5	CREATING	Develop innovative service delivery frameworks using digital technologies .

Unit- I:	Strategic Service Operations
	Role of service operations in competitive advantage, Service value chain & service-profit chain ,Globalization and service outsourcing/off shoring , Strategic partnerships, franchising, and alliances in services , Case Study: Infosys BPO – Off shoring Excellence
Unit- II:	Service Supply Chain & Logistics
	Service supply chain concepts and frameworks , E-logistics, distribution, and last-mile delivery , Vendor and partner relationship management in services Global sourcing and procurement in services, Case Study: Amazon India – Service logistics optimization.
Unit- III:	Lean & Sustainable Service Operations
	Lean principles in services (removing waste, service flow improvement), Service Six Sigma and operational excellence, Green service operations and sustainability practices, Risk management and resilience in service networks Case Study: Indian Railways – Green Initiatives in Services.
Unit- IV:	Technology & Future of Service Operations
	Artificial Intelligence, Machine Learning, and Robotics in services, Service

	analytics, big data, and IoT applications, Emerging trends: Cloud services, platform economy, sharing economy, Ethical, legal, and social issues in digital service operations, Case Study: Swiggy – AI-enabled last-mile delivery
Suggested Text Books:	• S.A. Chary (2019) – *Production and Operations Management* – McGraw Hill Education (India). • Panneerselvam, R. (2015) – *Service Operations Management* – PHI Learning, New Delhi. • Johnston, R. & Clark, G. (2018) – *Service Operations Management: Improving Service Delivery* – Pearson (International).
Suggested References Books:	• Sinha, P.K. & Sahoo, S.C. (2019). *Service Operations and Management: Indian Perspective*. Pearson India. • Verma, H. (2018). *Services Marketing: Text and Cases in Indian Context*. Pearson Education India. • Nair, Suja (2021). *Services Marketing*. Himalaya Publishing House. • Johnston, R. & Clark, G. (2018). *Service Operations Management: Improving Service Delivery*. Pearson (International).

Semester IV	MANB510P	Industry 4.0
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Objective:

Familiarize students with the concepts, technologies, and applications of Industry 4.0 in production and operations management. To develop skills to analyze, implement, and manage smart-manufacturing systems and digital supply chains effectively.

Course Outcomes:

CO#	COGNITIVE ABILITIES	COURSE OUTCOMES
510P.1	UNDERSTANDING	Explain the evolution of industries from 1.0 to 4.0 and the concept of smart manufacturing.
510P.2	ANALYSING	Analyze real-world manufacturing and supply chain scenarios using Industry 4.0 tools.
510P.3	APPLYING	Apply Industry 4.0 frameworks to optimize production, quality, and efficiency..
510P.4	EVALUATING	Evaluate benefits, challenges, and risks of implementing Industry 4.0 in organizations.
510P.5	CREATING	Design strategies for digital transformation and smart factories in the context of modern operations management.

Unit- I:	Introduction to Industry 4.0
	Evolution of industrial revolutions (1.0 to 4.0) ,Definition, vision, and principles of Industry 4.0 , Smart factories and cyber-physical systems, Digital transformation in manufacturing and operations , Drivers of Industry 4.0 (Globalization, Customer demands, Technology).
Unit- II:	Key Technologies of Industry 4.0
	Internet of Things (IoT) and Industrial IoT (IIoT), Big Data and Analytics in operations, Cloud computing and Edge computing, Artificial Intelligence (AI) and Machine Learning (ML) applications, Additive Manufacturing (3D Printing), Robotics, Automation, and Autonomous Systems, Cyber security in Industry 4.0.
Unit- III:	Industry 4.0 in Operations and Supply Chain
	Smart supply chain management , Digital twin technology and simulation Predictive maintenance and condition monitoring ,Real-time production monitoring and control , Lean production and quality 4.0 ,Case studies of Industry 4.0 implementation in manufacturing.
Unit- IV:	
	Challenges, Strategies, and Future Trends
	Implementation challenges (technical, organizational, cultural) , Change

	management in digital transformation , Strategic planning for Industry 4.0 adoption, Sustainability and green manufacturing in Industry 4.0 , Future trends: AI, IIoT, robotics, autonomous supply chains, Global examples and emerging research

Suggested Text Books:	• Kumar, Ashutosh, et al. *Industry 4.0: Smart Manufacturing and Digital Transformation*. Wiley, 2020. • Raj, B., et al. *Industry 4.0: Challenges and Opportunities in Production Management*. McGraw-Hill, 2019.
Suggested References Books:	• R. K. Jain, *Industry 4.0 and Smart Manufacturing*, New Age International, 2020. • S. C. Sharma, *Digital Manufacturing and Industry 4.0*, PHI Learning, 2019. • P. K. Ghosh, *Industry 4.0: Concepts, Challenges, and Applications*, McGraw-Hill Education India, 2021.

MBA: III Semester Syllabus Specialization: International Business

SEMESTER III	MANB	Global Leadership and Skill Development
3 Credits	MANB503 E	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain major leadership theories and apply cross-cultural leadership frameworks to interpret leader behaviour in global settings.
CO2	APPLY	Apply emotional-intelligence and advanced interpersonal techniques to manage relationships, feedback and difficult conversations in managerial settings.
CO3	ANALYZE	Analyze complex communication and negotiation situations and select appropriate persuasion and bargaining strategies for managerial outcomes.
C04	CREATE	Create a team development and coaching plan plus a practical change-management intervention for an organisational scenario.
CO5	EVALUATE	Evaluate strategic leadership choices, ethical implications and design a career/leadership development roadmap with measurable KPIs for self and successors.

UNIT 1	Global Leadership Theories & Context:
	Trait, behavioural, situational & contingency theories; transformational vs transactional leadership; ethical leadership and stewardship; global leadership frameworks (GLOBE study and cross-cultural leadership dimensions); global mindset and cultural intelligence (CQ); leader competencies, competency mapping and leadership development architectures; differences between leaders and managers in global contexts.
UNIT 2	Interpersonal Skills & Emotional Intelligence (EI):
	Self-awareness and self-management; emotional intelligence (EI) constructs and assessment; social awareness and relationship management; active listening, empathetic communication and feedback skills; managing difficult conversations and building influence without authority; personal resilience and stress management for leaders.
UNIT 3	Communication, Negotiation & Persuasion:
	Executive communication: structure, storytelling and presentation skills; cross-cultural communication and virtual team communication protocols; negotiation fundamentals — interests vs positions, BATNA (Best Alternative To a Negotiated Agreement), distributive vs integrative bargaining; persuasion techniques, stakeholder analysis and coalition building; media & crisis communication basics.

UNIT 4	Team Leadership, Coaching & Change Management: Team formation and lifecycle (forming → storming → norming → performing); building high-performance teams and psychological safety; coaching & mentoring techniques for talent development (GROW model and structured feedback); leading change — Kotter's 8-step, ADKAR (Awareness, Desire, Knowledge, Ability, Reinforcement) and interventions; designing leadership development plans and succession pipelines.
UNIT 5	Strategic Leadership, Ethics & Career Skill Development: Strategic thinking and decision framing; systems thinking and stakeholder governance; corporate governance and ethical dilemmas in leadership; personal branding, career planning and executive presence; global mobility & cross-border leadership challenges; lifelong learning, digital leadership skills and measurement of leadership effectiveness (360° feedbacks, KPIs).

SUGGESTED TEXT BOOKS/CASES/READINGS.

Textbooks:

1. Northouse, P. G. (2019). *Leadership: Theory and practice* (8th ed.). SAGE Publications.
2. Goleman, D. (2013). *Emotional intelligence: Why it can matter more than IQ* (10th anniversary ed.). Bloomsbury Publishing.
3. Livermore, D. (2015). *Leading with cultural intelligence: The real secret to success* (2nd ed.). AMACOM.

Reference Books

1. Clegg, S., Kornberger, M., &Pitsis, T. (2016). *Managing & organizations: An introduction to theory & practice* (4th ed.). SAGE Publications.
2. Fisher, R., Ury, W., & Patton, B. (2011). *Getting to yes: Negotiating agreement without giving in* (3rd ed.). Penguin Books.
3. Whitmore, J. (2017). *Coaching for performance: The principles and practice of coaching and leadership* (5th ed.). Nicholas Brealey Publishing.
4. Patterson, K., Grenny, J., McMillan, R., &Switzler, A. (2011). *Crucial conversations: Tools for talking when stakes are high* (2nd ed.). McGraw-Hill Education.
5. Schein, E. H., & Schein, P. A. (2018). *Organizational culture and leadership* (5th ed.). Wiley.
6. Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology*, 9(2), 169–180. (journal article — useful for research assignments)

SEMESTER III	MANB	International Marketing
3 Credits	MANB504E	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain major international trade theories and evaluate country-level environmental factors to shortlist attractive international markets.
CO2	APPLY	Apply entry selection frameworks to recommend an appropriate market entry mode and initial market strategy for a chosen product/market.
CO3	ANALYZE	Analyse product and pricing alternatives across markets and propose a branding and pricing policy that balances adaptation, cost and competitiveness.
C04	CREATE	Create an end-to-end export logistics and distribution plan (including INCOTERMS selection and documentation checklist) for a chosen export product.
CO5	EVALUATE	Evaluate international market research findings and design a risk-mitigation plan (including hedging and payment instruments) and ethical compliance checklist for international operations.

UNIT 1	Global Market Environment & International Trade Theories:Global macro environment (political, economic, socio-cultural, technological, legal and ecological factors); international trade theories (absolute & comparative advantage, Heckscher-Ohlin, product life-cycle, new trade theories); regional trade agreements and economic blocs (WTO — World Trade Organization, EU, ASEAN, RCEP); country screening and market attractiveness frameworks; cultural dimensions and cross-cultural considerations (Hofstede, Trompenaars).
UNIT 2	International Market Entry & Global Strategy: Modes of entry (exporting — direct & indirect, licensing, franchising, contract manufacturing, joint ventures, wholly owned subsidiaries); strategic choices — global, transnational, multinational and multi-domestic strategies; strategic alliances and network entry; market prioritisation and market entry sequencing; legal and regulatory considerations for entry.
UNIT 3	Global Product, Branding & Pricing Decisions:Product standardization vs adaptation; global product development, new product diffusion and international product life-cycle; global branding, positioning and country-of-origin effects; international pricing strategies (cost-plus, market-based, transfer pricing), currency fluctuation adjustments and price escalation; dumping, anti-dumping and transfer pricing issues; export packaging and

.	labelling compliance.
UNIT 4	**International Distribution, Logistics & Export Operations:**International channel design (agents, distributors, importers, global retailers); contract negotiation with intermediaries; logistics and physical distribution — INCOTERMS (International Commercial Terms), shipping, freight forwarding, customs clearance and documentation; cold-chain & perishables logistics; export-import documentation, export incentives, export packing, cargo insurance and warehousing; role of 3PL (Third-Party Logistics) and trade facilitation (single window / e-customs).
UNIT 5	**International Marketing Research, Risk Management & Ethics:**International market research approaches and data sources; segmentation, targeting and positioning across cultures; currency and country risk management (exchange rate risk, political risk, transfer risk) and hedging instruments (forwards, futures, options, currency swaps); export finance and payment terms (LC — Letter of Credit, D/P, D/A, open account); international marketing ethics, CSR (Corporate Social Responsibility) and compliance (sanitary & phytosanitary measures, product standards).

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Cateora, P. R., Gilly, M. C., & Graham, J. L. (2019). *International marketing*. McGraw Hill Education.
2. Keegan, W. J., & Green, M. C. (2017). *Global marketing*. Pearson Education India.
3. Czinkota, M. R., Ronkainen, I. A., & Moffett, M. H. (2019). *International business* (and international marketing sections). Wiley.

Reference Books:

1. Boddewyn, J. J., &McGahan, A. (2019). *Global marketing management: Text and cases*. Palgrave Macmillan.
2. Hill, C. W. L. (2018). *International business: Competing in the global marketplace*. McGraw Hill Education.
3. Onkvisit, S., & Shaw, J. J. (2018). *International marketing: Strategy and theory*. Routledge.
4. Sharma, R. A. (2016). *Export-Import Procedures and Documentation* (India context). New Age International Publishers.

SEMESTER III	MANB	Global Merger and Acquisition
3 Credits	MANB505 E	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain strategic motives for M & A, distinguish transaction types and evaluate market/competition constraints affecting deal choices.
CO2	APPLY	Apply valuation methods to estimate target value and design appropriate deal consideration and structuring alternatives.
CO3	ANALYZE	Analyse due-diligence findings and identify legal, accounting and tax issues that materially affect deal valuation and risk allocation.
C04	CREATE	Create a transaction execution plan that covers financing choices, negotiation stance and the sequence of documentation and approvals.
CO5	EVALUATE	Evaluate post-merger integration options and design an integration roadmap with KPIs to capture projected synergies and mitigate governance risks.

UNIT 1	Merger & Acquisition Strategy, Motives & Market Context: Strategic rationales for mergers & acquisitions (synergies, market power, diversification, corporate control, capabilities acquisition); types of transactions (merger, acquisition, takeover, friendly vs hostile, cross-border); market structures and competition considerations; regulatory & antitrust (competition-law) frameworks affecting deals; industry analysis and target screening; deal drivers in emerging markets and India-specific context (corporate groups, promoter-driven deals).
UNIT 2	Valuation, Pricing & Deal Structuring: Valuation techniques for target firms — comparable company multiples, precedent transactions, discounted cash flow (DCF), adjusted present value (APV); estimating synergy value and control premia; exchange ratios and share-swap calculations; consideration structures (cash, stock, contingent payments / earn-outs); tax structuring and regulatory constraints on consideration; anti-dilution and minority protections.
UNIT 3	Due Diligence, Legal, Accounting & Tax Issues: Due diligence process and checklists (commercial, financial, tax, operational, HR, legal, IT, environmental); accounting aspects of mergers — purchase method vs pooling (where applicable), goodwill measurement and impairment; tax implications, stamp duty and cross-border tax treaties; regulatory filings, approvals and takeover code requirements (domestic & cross-border); material contracts, representations & warranties, indemnities.

UNIT 4	**Financing, Negotiation & Transaction Execution:** Deal financing options (cash, debt, equity, mezzanine, leveraged buyouts — LBOs); role of investment banks, private equity, and lenders; negotiation strategies and bargaining tactics (term-sheet, exclusivity, break-fee); documentation (LOI — Letter of Intent, SPA — Share Purchase Agreement, SHA — Shareholders' Agreement); timeline and project-management of deal execution; regulatory clearances and closing mechanics.
UNIT 5	**Post-Merger Integration (PMI), Value Capture & Governance:** Post-merger integration planning (people, culture, IT, operations, brand, customers); integration models (absorption, preservation, symbiotic); measuring and tracking synergy capture (financial & operational KPIs); change management, retention and compensation schemes; governance, minority protection, anti-trust remedies and divestiture/exits; deal failures: common causes and lessons learned.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Damodaran, A. (2012). *Investment valuation: Tools and techniques for determining the value of any asset* (3rd ed.). John Wiley & Sons.
2. DePamphilis, D. (2021). *Mergers, acquisitions, and other restructuring activities* (8th ed.). Academic Press / Elsevier.
3. Sudarsanam, S. (2003). *Value creation from mergers and acquisitions.* Pearson Education.

Reference Books:

1. Andrade, G., Mitchell, M., & Stafford, E. (2001). New evidence and perspectives on mergers. *Journal of Economic Perspectives,* 15(2), 103–120.
2. Bruner, R. F. (2004). *Applied mergers and acquisitions.* Wiley.
3. Gaughan, P. A. (2017). *Mergers, acquisitions, and corporate restructurings* (7th ed.). Wiley.
4. Koller, T., Goedhart, M., &Wessels, D. (2015). *Valuation: Measuring and managing the value of companies* (6th ed.). Wiley.
5. Weston, J. F., Mitchell, M. L., &Mulherin, J. H. (2004). *Takeovers, restructuring, and corporate governance.* Pearson Education.

SEMESTER III	MANB	Export Import Procedure and Documentation
3 Credits	MANB506 E	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain India's trade policy architecture, identify the key institutions supporting exports/imports, and relate major export incentive schemes to firm-level decisions.
CO2	APPLY	Prepare and manage the core pre-shipment and shipment documentation set (IEC, commercial docs, transport docs, certificates) required for a standard export consignment.
CO3	ANALYZE	Demonstrate the sequence and documentation required for import clearance and apply HS-code based classification and valuation principles for duty estimation.
C04	CREATE	Apply trade-finance instruments (LCs, collections, pre/post-shipment finance) and recommend appropriate risk-mitigation (ECGC, hedging) for transactions.
CO5	EVALUATE	Create a complete export-logistics plan (INCOTERMS choice, documentation flow, customs & digital filing) and evaluate compliance/claims procedures for an export consignment.

UNIT 1	International Trade Policy, Regulatory Framework & Institutional Support:India's foreign trade policy and policy instruments (Foreign Trade Policy — FTP; export control and licensing); role of DGFT (Directorate General of Foreign Trade), RBI (Reserve Bank of India), CBIC (Central Board of Indirect Taxes & Customs) and EPCs (Export Promotion Councils); export promotion schemes and incentives; classification of exports (merchandise, services); institutional support—ECGC (Export Credit Guarantee Corporation), banks and trade facilitation agencies; compliance overview and licensing basics.
UNIT 2	Export Procedures & Documentation (pre-shipment to shipment):Export readiness and registration (IEC — Importer Exporter Code); export contract and order processing; commercial documents — proforma & commercial invoice, packing list, delivery challan; transport documents — bill of lading, air waybill; export declarations and customs formalities for export (shipping bill, export manifest); certificates — Certificate of Origin, Phytosanitary, Fumigation, FSSAI (Food Safety and Standards Authority of India) certificates where relevant; cargo insurance and claims documentation; role of freight forwarders and customs brokers.

UNIT 3	Import Procedures, Documentation & Customs Clearance: Import licensing and registration; foreign purchase order processing; import documents — commercial invoice, packing list, bill of entry, bill of lading / airway bill; customs valuation, HS (Harmonized System) classification and tariff structures; duty exemptions/relief schemes, bonded warehouses and Special Economic Zones (SEZs); clearance process at port/ICD/CFS (Inland Container Depot / Container Freight Station); regulatory clearances (plant quarantine, BIS, FSSAI) and inspection regimes.
UNIT 4	Trade Finance, Payments & Risk Management: Methods of payment and settlement (Cash In Advance, Open Account, Documentary Collection, Documentary Credit / LC — Letter of Credit); mechanics of documentary credits, UCP (Uniform Customs and Practice) rules and ICC (International Chamber of Commerce) standards; export finance — pre-shipment and post-shipment credit, ECGC (Export Credit Guarantee Corporation) cover and claim process; foreign-exchange risk and hedging basics (forwards, options); trade insurance, buyer/credit risk mitigation and banker's role in export/import.
UNIT 5	Incoterms, Logistics, Customs Compliance & Digital Procedures: INCOTERMS (International Commercial Terms) selection and implications for costs & risks; multimodal logistics, containerisation, packing for export, cargo handling and cold-chain considerations; customs compliance & audit, anti-dumping and export control issues; digital platforms & e-filing (DGFT portal, ICEGATE/Indian Customs Electronic Gateway, eSanchit); export documentation flow, record-keeping and trade facilitation (single-window initiatives); post-shipment follow-up: claims, repatriation and reconciliation.

Text Books:

1. Bade, D. (2015). *Export/Import Procedures and Documentation* (5th ed.). AMACOM.
2. Gopal, C. R. (2006). *Export Import Procedures: Documentation and Logistics*. New Age International Publishers.
3. Jain, K. S. (2009). *Export–Import Procedures and Documentation: A Complete Reference for the Educators and the Educands*. Himalaya Publishing House.
4. Lall, M., & Ahmad, S. (2021). *Export Import: Procedure and Documentation*. Sultan Chand & Sons.

Reference Books:

1. Central Board of Indirect Taxes & Customs. *Customs procedures and notifications*. Government of India. Retrieved from https://www.cbic.gov.in
2. Directorate General of Foreign Trade. *Foreign Trade Policy and Handbooks*. Directorate General of Foreign Trade, Ministry of Commerce & Industry, Government of India. Retrieved from https://dgft.gov.in
3. Export Credit Guarantee Corporation of India. *Schemes and Guidelines*. ECGC Ltd. Retrieved from https://www.ecgc.in
4. Paul, J. (2015). *International Business* (5th ed.). Pearson India. — (useful for contextual international trade background).

5. Senthilvelmurugan, J., &Mahalakshmi, S. (2012). *Export and Import Documentation and Procedures*. New Century Publications.

SEMESTER IV	MANB	International Economics and Emerging Market
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Students will be able to explain key theories of international trade and their relevance to emerging markets.
CO2	APPLY	Students will be able to apply BOP analysis and exchange rate concepts to assess the economic health of emerging markets.
CO3	ANALYZE	Students will be able to analyze the role of international institutions and agreements in shaping emerging market dynamics.
C04	CREATE	Students will be able to develop strategic frameworks for attracting FDI in emerging markets.
CO5	EVALUATE	Students will be able to evaluate the impact of global disruptions and policy shifts on emerging markets.

UNIT 1	Foundations of International Economics: International trade theories (Absolute Advantage, Comparative Advantage, Heckscher-Ohlin); gains from trade; role of international economics in global business strategy; globalization trends in trade, capital, and technology. Emerging markets context: characteristics, growth drivers, and challenges.
UNIT 2	Balance of Payments and Exchange Rate Mechanisms: Structure of Balance of Payments (BOP); current account, capital account, official reserve transactions; disequilibrium and adjustment measures. Exchange rate systems—fixed, floating, and managed float; Purchasing Power Parity (PPP) theory; implications of exchange rate volatility for emerging economies.
UNIT 3	International Economic Institutions and Agreements: Role of IMF (International Monetary Fund), World Bank, WTO (World Trade Organization); regional trade agreements (EU, NAFTA, ASEAN, SAARC); South-South trade cooperation; challenges for emerging markets in global institutional frameworks.
UNIT 4	Foreign Direct Investment (FDI) and Multinational Corporations (MNCs): Trends and patterns of FDI in emerging markets; determinants of FDI inflows; benefits and risks for host countries; role of multinational corporations in knowledge transfer, technology, and employment generation. Emerging market multinationals (EMNCs) and their global strategies.
UNIT 5	Contemporary Issues in International Economics:Global financial crises and emerging markets; trade wars, tariffs, and protectionism; BRICS economies; currency crises; role of innovation, digitization, and sustainability in

emerging markets.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Textbooks:

1. Carbaugh, R. J. (2019). *International economics*. Cengage.
2. Salvatore, D. (2020). *International economics: Trade and finance*. Wiley.

Reference Books:

1. Krugman, P., Obstfeld, M., & Melitz, M. (2018). *International economics: Theory and policy*. Pearson.
2. Todaro, M. P., & Smith, S. C. (2020). *Economic development*. Pearson.

SEMESTER IV	MANB	Global Financial Markets and Instruments
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Students will be able to describe the structure and significance of global financial markets.
CO2	APPLY	Students will be able to apply knowledge of instruments to evaluate money and capital market transactions.
CO3	ANALYZE	Students will be able to analyse foreign exchange market movements and their impact on corporate decisions.
C04	CREATE	Students will be able to create hedging strategies using derivative instruments.
CO5	EVALUATE	Students will be able to evaluate global financial disruptions and regulatory responses.

UNIT 1	Introduction to Global Financial Markets : Structure and evolution of global financial markets; role of financial markets in economic development; international capital flows; classification into money markets, capital markets, forex markets, and derivatives markets.
UNIT 2	Money and Capital Markets: Instruments in money markets (Treasury bills, commercial papers, certificates of deposit); capital market instruments (equity, bonds, debentures, G-security). Primary vs secondary markets; role of stock exchanges and SEBI in India; international listing of Indian companies.
UNIT 3	Foreign Exchange Market and Instruments: Mechanics of forex market; spot and forward exchange rates; swaps, options, and futures in forex; exchange rate risk management; role of LIBOR (London Interbank Offered Rate), EURIBOR; Indian forex market reforms.
UNIT 4	Derivatives and Risk Management: Introduction to financial derivatives; futures, options, swaps; hedging, speculation, and arbitrage; risk management in global business; Indian derivatives market (NSE, BSE).
UNIT 5	Global Financial Crises and Regulatory Frameworks : Historical financial crises (Great Depression, 2008 crisis, Eurozone crisis); contagion effects; role of regulatory bodies (BIS, IOSCO, RBI, SEBI); Basel norms. Future of global finance—Fintech, crypto-assets, and digital currency.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Bhole, L. M., &Mahakud, J. (2019). *Financial institutions and markets: Structure, growth and innovations*. McGraw-Hill.
2. Madura, J. (2020). *International financial management*. Cengage.

Reference Books:

1. Hull, J. C. (2018). *Options, futures, and other derivatives*. Pearson.
2. Mishkin, F. S. (2019). *The economics of money, banking, and financial markets*. Pearson.

SEMESTER IV	MANB	Management of Multinational Companies
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Students will be able to explain the fundamentals and role of MNCs in the global economy.
CO2	APPLY	Students will be able to apply suitable entry and growth strategies for MNCs.
CO3	ANALYZE	Students will be able to analyze organizational and HRM strategies of MNCs.
C04	CREATE	Students will be able to create financial and risk management frameworks for MNC operations.
CO5	EVALUATE	Students will be able to evaluate emerging trends shaping the future of MNCs.

UNIT 1	Introduction to Multinational Corporations (MNCs):Definition, characteristics, and classification of MNCs; role of MNCs in globalization; drivers of internationalization; advantages and risks of managing across borders.
UNIT 2	Strategies of Multinational Companies: Entry strategies—exporting, licensing, franchising, joint ventures, wholly-owned subsidiaries; global vs multi-domestic strategies; supply chain and operational strategies in multinational context.
UNIT 3	Organization and Human Resource Management in MNCs :Organizational structures of MNCs (matrix, transnational, regional HQs); expatriate management, cross-cultural management, leadership in MNCs. Diversity and inclusion challenges in global HRM.
UNIT 4	Financial and Risk Management in MNCs: Transfer pricing, international taxation, foreign exchange exposure; political, legal, and cultural risks; corporate governance in MNCs; CSR (Corporate Social Responsibility) in global context.
UNIT 5	Future of MNCs and Emerging Trends:Digital transformation, sustainability, ethical leadership, green supply chains; role of Indian MNCs in the global arena; geopolitics and shifting trade blocs.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Deresky, H. (2017). *International management: Managing across borders and cultures*. Pearson.
2. Hill, C. W. L. (2020). *International business: Competing in the global marketplace*. McGraw-Hill.

Reference Books:

1. Bartlett, C. A., & Beamish, P. W. (2018). *Transnational management: Text, cases, and readings in cross-border management*. McGraw-Hill.
2. Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2018). *International business: Environments and operations*. Pearson.

MBA: IV Semester Syllabus Specialization: International Business

SEMESTER IV	MANB	Global Trade Legislation
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Students will be able to describe the foundations of global trade law.
CO2	APPLY	Students will be able to apply knowledge of trade policies to real-world business scenarios.
CO3	ANALYZE	Students will be able to analyze export-import procedures within the legal framework.
C04	CREATE	Students will be able to create frameworks for managing IPR in global trade.
CO5	EVALUATE	Students will be able to evaluate contemporary legal issues affecting global trade.

UNIT 1	Introduction to Global Trade and Legal Framework: Globalization of trade; evolution of international trade law; importance of legal frameworks in facilitating trade; overview of UNCITRAL (United Nations Commission on International Trade Law) and WTO.
UNIT 2	Trade Policies and Agreements: WTO agreements (GATT, GATS, TRIPS); regional trade agreements (NAFTA, EU, ASEAN, SAARC); India's trade agreements; tariff and non-tariff barriers.
UNIT 3	Export-Import Regulations and Documentation: Legal aspects of EXIM (Export-Import) trade; INCOTERMS (International Commercial Terms); export-import documentation; customs laws and procedures; role of DGFT (Directorate General of Foreign Trade).
UNIT 4	Intellectual Property Rights (IPR) and Global Trade: Patents, copyrights, trademarks, and geographical indications; TRIPS agreement; IPR challenges in emerging markets; protection of indigenous knowledge and agri-products.
UNIT 5	Contemporary Issues in Global Trade Legislation: Trade disputes and settlement mechanisms; role of WTO in dispute resolution; issues of dumping, subsidies, and countervailing duties; e-commerce and digital trade laws; India's position in global trade conflicts.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Kumar, R. (2019). *Export-import and logistics management.* Sage Publications.
2. Vermani, A. (2017). *International trade and business: Law, policy and ethics.* PHI Learning.

Reference Books:

1. Jackson, J. H., Davey, W. J., & Sykes, A. O. (2019). *Legal problems of international economic relations.* West Academic.
2. Trebilcock, M., Howse, R., &Eliason, A. (2019). *The regulation of international trade.* Routledge.

SEMESTER III	MANB	Agri Marketing
3 Credits	MANB504A	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain India's agro-processing landscape and Maharashtra's cluster dynamics.
CO2	APPLY	Students will able to apply concepts of agro Marketing mix
CO3	ANALYZE	Students will be able to distinguish different types of market structure and pricing
C04	CREATE	Design a marketing plan along with export and value addition of Agri products
CO5	EVALUATE	Decide among investment alternatives using IRR/NPV/DSCR + risk.

UNIT 1	Agricultural Marketing Environment & Institutions:Nature, scope and peculiarities of agricultural markets in India; Marketable and marketed surplus; seasons and price cycles; Marketing institutions: APMC (Agricultural Produce Market Committee), private markets, direct marketing, local mandis, and the role of e-NAM (electronic National Agriculture Market); Intermediaries and channel functions; Government role: MSP (Minimum Support Price), procurement agencies, buffer stocks, and basic export/import controls; Market information systems and price dissemination (national & local)
UNIT 2	Market Analysis & Marketing Mix for Agriproducts:Market segmentation, targeting and positioning for farm and processed products. Product decisions: grading, standardization (AGMARK / BIS), packaging for perishables and processed goods. Pricing strategies: cost, demand and buyer-oriented methods; price spread analysis. Promotion & rural communication for farm inputs and outputs. Place (distribution) decisions: wholesalers, retailers, processors, contract farming and FPO (Farmer Producer Organization) linkages; direct marketing & farmers' markets.
UNIT 3	Market Structures, Price Discovery & Risk Management: Market structures and competition in agricultural marketing; concentration & cartelization risks. Spot vs forward markets, futures markets and hedging basics (role of commodity exchanges). Price discovery mechanisms in regulated vs deregulated markets. Post-harvest loss, quality risk, and market risk management instruments (warehouse receipts, futures, insurance). Contract farming models and legal/risk analysis.
UNIT 4	Marketing Planning, Exports & Value Addition: Marketing planning and new product development for value-added agricultural products. Branding & quality certification (organic, GI, FSSAI (Food Safety and Standards Authority of India) labelling requirements). Export readiness: quality, phytosanitary standards, documentation and logistics. Agribusiness retailing models, supply chain integration and aggregator platforms (digital marketplaces).

	Designing marketing models for perishables: cold-chain, aggregation hubs and pack houses.
UNIT 5	**Performance Measurement, Pricing Policy & Ethical Evaluation:** Marketing performance metrics (market share, margins, price spread indices). Project appraisal for marketing interventions: simple BEP (Break-Even Point), **NPV (Net Present Value), IRR (Internal Rate of Return)** and cash-flow analysis for marketing investments. Evaluation of social, environmental & ethical impacts of marketing (inclusiveness, farmer welfare). Policy evaluation: effectiveness of APMC (Agricultural Produce Market Committee) reforms, e-NAM (electronic National Agriculture Market), contract farming regulations, and subsidy impacts. Consumer protection, labelling ethics and fair trade considerations.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Acharya, S. S., & Agarwal, N. L. (2011). *Agricultural marketing in India* (4th ed.). Oxford & IBH Publishing.
2. Kohls, R. L., &Uhl, J. N. (2005). *Marketing of agricultural products* (9th ed.). Pearson Prentice Hall.
3. Sharma, P. (2010). *Agri-marketing management.* Daya Publishing House.
4. Kotler, P., Keller, K. L., &Gangadhar, B. (2016). *Marketing management* (15th ed.). Pearson India. *(for managerial marketing frameworks used in agrimarketing contexts).*

Reference Books:

1. Singh, S., & Pandey, S. (2005). *Rural marketing.* New Age International Publishers.
2. Rangnekar, D., &Bhalla, G. (eds.) (2018). *Transformation of agri-food systems.* Springer / academic collections.
3. Hatai, L. D. (Year). *Agricultural Marketing Management.* (Indian publisher — check current edition).
4. Legal / Policy sources (use online authoritative sources — relevant for Unit I/III/IV):
    a. Food Safety and Standards Authority of India. (2006). *Food Safety and Standards Act, 2006.* Government of India. Retrieved from https://www.fssai.gov.in.
    b. e-NAM (electronic National Agriculture Market) & central APMC guidance pages (refer to Government of India / Ministry of Agriculture portals).

SEMESTER III	MANB	Agri Business Project Management
3 Credits	MANB505 A	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain project identification and formulate a clear project brief that captures scope, stakeholders and high-level feasibility for an agricultural/agribusiness intervention.
CO2	APPLY	Apply financial and economic appraisal tools (BEP, NPV, IRR, DSCR) and prepare a basic cost and cash-flow model for an Agri-project.
CO3	ANALYZE	Analyse implementation plans and institutional arrangements to identify operational bottlenecks and mitigation measures for an Agri-project.
C04	CREATE	Design a monitoring and evaluation framework (log frame + indicators + data plan) and design an impact assessment approach for an Agri-project.
CO5	EVALUATE	Assess project risks and governance structures and recommend mitigation, exit and sustainability measures for an agricultural project.

UNIT 1	Project Identification & Formulation
	Nature of Agri projects (seasonality, perishability, fragmented producers); project life-cycle stages; opportunity scanning, stakeholder mapping and beneficiary analysis; feasibility screening (technical, market, social, environmental); project scoping and concept note preparation; common Agri project types in Maharashtra (cold chain, dairy, FPO [Farmer Producer Organization], irrigation, processing units); alignment with subsidy/government schemes.
UNIT 2	Project Appraisal: Technical, Financial & Economic
	Technical appraisal (capacity, layout, equipment, manpower); cost estimation (CapEx [Capital Expenditure], OpEx [Operating Expenditure], working capital); break-even analysis, cash flows, pro-forma financials; NPV (Net Present Value), IRR (Internal Rate of Return), payback, DSCR (Debt Service Coverage Ratio); subsidy/grant treatment; sensitivity and scenario analysis; economic appraisal and basic DPR (Detailed Project Report) preparation.

UNIT 3	Project Implementation & Institutional Linkages
	Project governance structures; procurement and contracting (equipment, works, services); project scheduling (Gantt, CPM/PERT basics); HR planning and training; financial phasing and bank credit linkage (NABARD [National Bank for Agriculture and Rural Development], cooperative finance, PPP [Public-Private Partnership] models); regulatory clearances and stakeholder coordination; monitoring quality during implementation.
UNIT 4	Monitoring, Evaluation (M&E) & Sustainability
	M&E frameworks and indicators; MIS (Management Information System) for data tracking; mid-term and ex-post evaluation methods; environmental and social safeguards; financial sustainability (O&M [Operations & Maintenance] models, user fees); institutional sustainability (handover to FPO/cooperative, capacity building); adaptive management and documentation of lessons.
UNIT 5	Risk Management, Exit & Governance
	Types of risks (production, market, financial, regulatory, environmental); mitigation tools (insurance, contracts, warehouse receipts, diversification); contingency planning; governance mechanisms (audit, compliance, performance incentives); exit and handover strategies; evaluation of project outcomes and scaling-up lessons from Maharashtra cases.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Barde, S. D., &Karmakar, K. G. (2004). *Agricultural project management for banks.* Popular Prakashan Pvt. Ltd.
2. Chandra, P. (2017). *Projects: Planning, analysis, selection, financing, implementation and review* (9th ed.). Tata McGraw-Hill Education.
3. Casley, D. J., & Kumar, K. (1988). *Project monitoring and evaluation in agriculture.* World Bank Publications.

Reference Books:

1. Barde, S. D., Karamkar, K. G., & others (eds.). *Agricultural project case studies / manuals* (various). (Check Popular Prakashan / local academic publishers).
2. Johl, S. S., & Moore, C. V. (Year). *Essentials of farm financial management.* (India edition; Today & Tomorrow's). — commonly listed in agricultural finance bibliographies.

SEMESTER III	MANB	Agricultural Logistics & Supply Chain Management
3 Credits	MANB506 A	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain the structure, stakeholders and value-chain flows of agricultural supply chains and interpret institutional roles in Maharashtra.
CO2	APPLY	Apply post-harvest and cold-chain design principles to prepare a basic storage/cold-chain plan for a horticulture commodity.
CO3	ANALYZE	Analyse transport and distribution alternatives and select cost-effective routing and distribution strategies for an agribusiness.
C04	CREATE	Create a sourcing and procurement model (contracts, inventory rules and supplier scorecards) for an FPO or MSME processor.
CO5	EVALUATE	Evaluate quality, traceability and risk-mitigation measures and recommend sustainable logistics solutions for an agricultural supply chain.

UNIT 1	Agri Supply Chain & Market Environment
	Characteristics of agricultural supply chains (seasonality, perishability, fragmentation of producers, low value-to-volume ratios); value-chain mapping from farm gate to consumer; market institutions and regulatory environment — APMC (Agricultural Produce Market Committee), e-NAM (electronic National Agriculture Market) and mandi systems; role of FPOs (Farmer Producer Organizations), cooperatives, traders and processors; channel choice and intermediary functions; regional commodity clusters (Maharashtra focus: grapes, mango, sugarcane, dairy); market information systems and basic KPIs for Agri-SCM.
UNIT 2	Post-harvest Operations, Storage & Cold-Chain Management
	Unit operations for quality preservation: grading, cleaning, sorting, packaging and handling; storage science for grains vs horticulture; warehouse design, capacity planning and warehouse receipt systems; cold-chain components — pack house, refrigerated transport, controlled atmosphere storage; inventory rules & spoilage management for perishables; cost drivers in storage and cold systems and basic route/holding loss calculations.
UNIT 3	Transportation, Distribution & Logistics Optimization
	Modal choice and transport economics for Agri goods; routing, scheduling and network design; distribution strategies for fresh vs processed products;

·	3PL (Third-Party Logistics) and contract logistics models; freight costing and risk in transit; basic optimization techniques for routing/allocation (linear programming concepts); performance metrics (lead time, fill rate, on-time delivery) and IT enablers (tracking, telemetry, basic TMS/WMS interfaces).
UNIT 4	**Procurement, Sourcing & Inventory for Agri Systems** Sourcing strategies: spot purchases, forward contracts, contract farming and aggregator/FPO sourcing; quality/grade specifications and supplier selection; procurement contracts and payment terms; inventory policies under seasonality (safety stock, reorder rules) and working-capital implications; procurement KPIs and supplier scorecards; integration of procurement with warehousing and cold-chain.
UNIT 5	**Quality, Traceability, Risk & Sustainability in Agri-SCM** Quality assurance systems and traceability (batch/lot tracing, basic digital traceability); food-safety linkages and compliance — FSSAI (Food Safety and Standards Authority of India) obligations and labelling considerations; risk identification (production, price, logistics disruptions), mitigation instruments (insurance, futures/hedging basics, warehouse receipts); green logistics and sustainability (energy, emissions in cold-chain); KPIs (spoilage rate, logistics cost % of value, OEE [Overall Equipment Effectiveness] where applicable) and resilience planning.

Text Books:

1. Chandrasekaran, N., &Raghuram, G. (2014). *Agribusiness supply chain management.* CRC Press.
2. Chopra, S., &Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson India.
3. Christopher, M. (2016). *Logistics & supply chain management* (5th ed.). Pearson Education Limited.
4. Chakraverty, A. (2003). *Post-harvest technology of cereals, pulses & oilseeds* (3rd ed.). Oxford & IBH Publishing Co. Pvt. Ltd.
5. Ranganna, S. (2019). *Handbook of analysis and quality control for fruit and vegetable products* (2nd ed.). Tata McGraw-Hill Education.

Reference Books:

1. Ballou, R. H. (2004). *Business logistics/supply chain management* (5th ed.). Pearson Education India.
2. Simchi-Levi, D., Kaminsky, P., &Simchi-Levi, E. (2008). *Designing and managing the supply chain: Concepts, strategies and case studies* (3rd ed.). McGraw-Hill Education.
3. Food Safety and Standards Authority of India (FSSAI). (2006). *Food Safety and Standards Act, 2006.* Government of India. Retrieved from https://www.fssai.gov.in
4. National Bank for Agriculture and Rural Development (NABARD). (n.d.). *Schemes and guidelines.* Retrieved from https://www.nabard.org
5. e-NAM (electronic National Agriculture Market). (n.d.). *e-NAM portal.* Retrieved from https://enam.gov.in

SEMESTER III	MANB	Agro Processing & Operation Management
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain India's agro-processing landscape and Maharashtra's cluster dynamics.
CO2	APPLY	Estimate throughput and headcount by shift for a selected line.
CO3	ANALYZE	Interpret course of action/test data to identify probable quality failure modes.
C04	CREATE	Design a sourcing–to–distribution network for an MSME processor.
CO5	EVALUATE	Decide among investment alternatives using IRR/NPV/DSCR + risk.

UNIT 1	**Overview of Agricultural Processing,** Role of Processing in Agribusiness, Importance of agricultural processing in food security and economy. Types of Agricultural Products (Crops, Livestock, Dairy, etc.), Key Players in the Agricultural Processing Sector, Basic Concepts in Operations Management, Historical development and current trends in agricultural operations
UNIT 2	**Overview of Agricultural Processing Techniques,** Traditional Agricultural Processing Methods, Modern Agricultural Processing Techniques, Emerging Trends and Technologies in Agricultural Processing, Specialized Processing Techniques in Different Agricultural Sectors, Quality Control and Standards in Agricultural Processing.
UNIT 3	**Quality Systems, Food Safety & Regulatory (India focus)** Topics: QA/QC & SPC basics; HACCP & ISO 22000; documentation & internal audits; Food Safety & Standards Act, 2006; FSSAI Licensing & Registration Regulations; labeling& claims; BIS/Agmark overview; vendor quality & traceability.
UNIT 4	**Post-Harvest Logistics, Cold-Chain & Agri-Supply Chains** Topics: Storage science (grains vs horticulture); cold-chain design & route planning; inventory policies with perishability; procurement from growers/FPOs; APMC/e-NAM implications; export readiness for processed foods; SCM levers (network, transport, information).
UNIT 5	**Costing, Project Appraisal & Continuous Improvement** Topics: Cost structure in food ops; product costing & pricing; BEP, NPV (Net Present Value/IRR (Internal Rate of Return), DSCR (Debt Service Coverage Ratio; reading a P&L for MSME units; production planning/scheduling for seasonal lines; TPM (Total Productivity Management, OEE (Overall Equipment Effectiveness), SMED (Single Minute Exchange of Dies), 5S & Lean in batch/process settings; sustainability (water/energy, by-product

	valorization); basic digital traceability. (Managerial toolsets per standard MBA OM/SCM texts.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Textbooks

1.Sahay, K. M., & Singh, K. K. (2001).*Unit operations of agricultural processing* (2nd ed.). Vikas Publishing House.

2. Chakraverty, A. (2003).*Post-harvest technology of cereals, pulses and oilseeds* (3rd ed.). Oxford & IBH Publishing Co. Pvt. Ltd. / CBS Publishers.

3. Ranganna, S. (2019).*Handbook of analysis and quality control for fruit and vegetable products* (2nd ed.). Tata McGraw-Hill Education.

4. Food Safety and Standards Authority of India (FSSAI). (2006).*Food Safety and Standards Act, 2006*. Government of India. Retrieved from https://www.fssai.gov.in

Reference Books

1. Chopra, S., &Meindl, P. (2019).*Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson Education India.

2. Heizer, J., Render, B., Munson, C., &Sachan, A. (2017).*Operations management: Sustainability and supply chain management* (12th ed.). Pearson Education India.

3. Chandrasekaran, N., &Raghuram, G. (2014).*Agribusiness supply chain management*. CRC Press.

MBA: IV Semester Syllabus Specialization: Agri Business Management

SEMESTER IV	MANB	High-Tech Agricultural Management
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain precision-farming technologies and interpret sensor/GIS outputs for farm management decisions.
CO2	APPLY	Apply IoT and digital-platform concepts to design a farm data collection and advisory workflow.
CO3	ANALYZE	Analyse suitability and ROI (Return on Investment) of UAV/robotics solutions for a selected cropping system.
CO4	CREATE	Create a high-level decision support design using AI/ML for crop advisory or input optimization.
CO5	EVALUATE	Evaluate governance and business models to scale high-tech agricultural solutions sustainably.

UNIT 1	Precision Farming & Sensing Technologies: Precision agriculture concepts; soil & crop sensing — in-field sensors, remote sensing & GIS (Geographic Information System); variable rate application and prescription maps; benefits and limitations for Indian farm sizes; data collection protocols and calibration.
UNIT 2	Digital Agriculture Platforms & IoT (Internet of Things): Farm management information systems (FMIS); IoT architectures for farms (sensors → gateways → cloud); mobile apps for advisory & market linkages; data security and farmer usability issues; business models for digital agritech platforms.
UNIT 3	UAV (Unmanned Aerial Vehicle) & Robotics in Agriculture: UAV/drone applications (surveying, spraying, NDVI mapping); autonomous farm machinery and robotics for seeding/harvesting; safety, regulation and operator requirements; cost-benefit and scale considerations for Maharashtra cropping systems.
UNIT 4	AI (Artificial Intelligence), ML (Machine Learning) & Decision Support: AI/ML algorithms for yield prediction, pest/disease detection, recommendation engines; DSS (Decision Support Systems) integration with ERP (Enterprise Resource Planning); model validation and explain ability for field adoption.
UNIT 5	Ag-data Economics, Governance & Scaling Technologies: Data ownership, privacy and sharing models; PPP (Public-Private Partnership) and FPO (Farmer Producer Organization) led tech adoption; financing & leasing models (service-as-a-service); scaling strategies and sustainability of high-tech interventions.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Textbooks:

1. Balasubramanian, R., &Selvaraj, K. N. (2018). *High-Tech Horticulture: Emerging Trends*. New India Publishing.
2. Singh, G. (2017). *Protected Cultivation of Horticultural Crops*. Kalyani Publishers.

Reference Books:

1. Shetty, N. S., &Hegde, M. R. (2019). *Agri-Tech: Opportunities and Challenges in India*. Himalaya Publishing House.
2. Government of Maharashtra. (2022). *Schemes for Polyhouse and Greenhouse Cultivation*. Dept. of Agriculture, Pune.
3. Singh, R., & Sharma, V. K. (2021). *Precision Farming in India: Concepts and Practices*. Oxford & IBH.

SEMESTER IV	MANB	Laws Related to Agri Business
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain the regulatory framework governing agricultural markets and the implications of APMC reforms.
CO2	APPLY	Apply FSSAI compliance and labelling rules to prepare a regulatory checklist for a processed Agri product.
CO3	ANALYZE	Analyse legal constraints related to land and water that affect agricultural project planning.
C04	CREATE	Create a basic contract-farming agreement and recommend institutional arrangements for farmer protection and enforceability.
CO5	EVALUATE	Evaluate legal and trade/regulatory risks for agri-businesses engaged in processing and export.

UNIT 1	Regulatory Framework for Agricultural Trade & Markets: APMC (Agricultural Produce Market Committee) laws and Model APMC reforms; e-NAM (electronic National Agriculture Market) legal interface; state market regulations; licensing & mandi operations; statutory roles of mandi boards.
UNIT 2	Food Safety, Standards & Consumer Protection: FSSAI (Food Safety and Standards Authority of India) Act/regulations; licensing, labeling and standards for processed foods; consumer protection aspects and recall procedures; compliance requirements for exporters.
UNIT 3	Land, Water & Agrarian Laws: Land tenure and lease laws affecting Agri projects; water rights, irrigation law and groundwater regulation; social/environmental clearance requirements; land-use change and eminent domain issues.
UNIT 4	Contract Farming, Cooperatives & Institutional Law: Contract farming frameworks and model acts; producer organizations, cooperative law and registration; PPP (Public-Private Partnership) contractual arrangements and dispute resolution; sample contract clauses and risk allocation.
UNIT 5	Intellectual Property, Trade & International Agreements: IPR (Intellectual Property Rights) in Agri inputs (plant varieties, seeds), GI (Geographical Indication) registrations, patent basics; WTO (World Trade Organization), sanitary & phytosanitary (SPS) measures and export controls; FDI (Foreign Direct Investment) and GST (Goods and Services Tax) implications for Agri business.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Singh, S. (2019). *Contract Farming and the Law in India*. Kalpaz Publications.
2. Srivastava, A. K. (2017). *Agri Business Laws and Policies*. Himalaya Publishing House

Reference Books:

1. Ministry of Agriculture & Farmers Welfare. (2022). *Model Contract Farming Act*. Govt. of India.
2. Narayanan, K. P. (2020). *Indian Agriculture: Institutions and Legal Issues*. Oxford University Press.
3. Deshpande, C. S. (2018). *Agricultural Policy and Law in India*. Pune: Everest Publishing.

SEMESTER IV	MANB	Agriculture Sustainability
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain core principles of sustainable agriculture and identify agro ecological practices suitable for local systems.
CO2	APPLY	Apply natural-resource and climate-smart practices to design an on-farm resilience plan.
CO3	ANALYZE	Analyse supply-chain interventions to reduce waste and improve circularity for a selected commodity.
C04	CREATE	Create a policy-aligned sustainability investment plan and recommend green-finance options for an agribusiness.
CO5	EVALUATE	Evaluate social and governance frameworks to ensure equitable and durable sustainability outcomes.

UNIT 1	**Principles of Sustainable Agriculture &Agro ecology:** Sustainable agriculture concepts; agro ecological practices (crop diversification, intercropping, conservation agriculture); soil health, nutrient management and integrated pest management (IPM); ecosystem services and biodiversity conservation.
UNIT 2	**Natural Resource Management & Climate Resilience:** Water-use efficiency, watershed management, micro-irrigation (drip & sprinkler), groundwater governance; climate risks, climate-smart agriculture measures and adaptation strategies; carbon sequestration and soil carbon management.
UNIT 3	**Sustainable Supply Chains & Circular Economy:** Post-harvest loss reduction, by-product valorization and circular models (waste to energy/compost); sustainable procurement, certification schemes (organic, Rainforest Alliance); lifecycle and footprint assessment (carbon & water).
UNIT 4	**Policy, Incentives & Green Finance:** National and state sustainability policies; carbon markets, payment for ecosystem services (PES), subsidies and incentives for sustainable practices; green finance instruments and sustainability reporting.
UNIT 5	**Social Inclusion, Rural Livelihoods & Governance:** Gender & social inclusion in sustainable agriculture; FPO (Farmer Producer Organization) roles in equitable value chains; social impact assessment and community engagement; governance for long-term sustainability.

SUGGESTED TEXT BOOKS/CASES/READINGS.

Text Books:

1. Gliessman, S. R. (2015). *Agroecology: The ecology of sustainable food systems* (3rd ed.). CRC Press.
2. Pretty, J., &Bharucha, Z. P. (2014). Sustainable intensification in agricultural systems. *Annals of Botany*, 114(8), 1571–1596.
3. Reddy, A. A. (2018). *Sustainable Agriculture in India*. Concept Publishing.
4. Palaniappan, S. P., &Annadurai, K. (2019). *Organic Farming: Theory and Practice*. Scientific Publishers.

Reference Books:

1. FAO. (2019). *Sustainable Food and Agriculture: Pathways to 2030*. FAO, Rome.
2. Singh, K. (2020). *Climate Smart Agriculture*. Oxford Book Co.
3. Government of Maharashtra. (2021). *Watershed and Organic Farming Models in Maharashtra*. Agriculture Dept., Pune.
4. Government of India / Maharashtra water and climate-resilience schemes (NABARD / state dept. publications).

SEMESTER IV	MANB	Agri Business Financial System
3 Credits	MANB	Discipline Specific Elective

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain institutional channels and products available for agricultural finance and their roles
CO2	APPLY	Apply project-finance tools to structure a loan proposal and compute viability metrics for an Agri project.
CO3	ANALYZE	Analyse insurance and market instruments to recommend a risk-mitigation package for farmers and processors.
C04	CREATE	Create a blended-finance proposal (mix of grants, debt, and equity) or fintech solution to finance an FPO/MSME Agri venture.
CO5	EVALUATE	Evaluate financial inclusion strategies and regulatory constraints and propose improvements for rural credit delivery.

UNIT 1	Structure of Agricultural Finance & Institutions: Overview of agricultural finance ecosystem — commercial banks, regional rural banks (RRB), cooperative banks, NABARD (National Bank for Agriculture and Rural Development), NBFCs (Non-Banking Financial Companies); MSME (Micro, Small & Medium Enterprises) credit policies and farm credit models.
UNIT 2	Project & Working-Capital Finance for Agri Projects: Financing term projects (CapEx [Capital Expenditure], machinery) and cyclical working capital for seasonal procurement; credit appraisal components (promoter, project, cash flows); BEP (Break-Even Point), NPV (Net Present Value), IRR (Internal Rate of Return) and DSCR (Debt Service Coverage Ratio) in project appraisal; subsidy packages and credit guarantees.
UNIT 3	Risk Management & Agricultural Insurance: Crop insurance schemes (PMFBY — Pradhan Mantri FasalBimaYojana), weather index insurance, livestock insurance; risk mitigation via warehouse receipts, futures & hedging, contract farming; credit risk assessment and recovery mechanisms; role of guarantee funds and credit rating.
UNIT 4	Alternative Finance & Fintech for Agriculture: Microfinance, value-chain finance, invoice discounting, supply-chain finance, leasing and equipment finance; fintech solutions (mobile banking, digital KYC, e-mandi payments) and aggregator financing models; impact investing and blended finance for Agri startups.

UNIT 5	**Financial Inclusion, Regulation & Performance Monitoring:** Regulatory framework (RBI guidelines, priority sector lending), financial inclusion metrics, KYC & AML (Anti-Money Laundering) considerations for rural finance; monitoring lender performance, portfolio KPIs, NPA (Non-Performing Asset) management and social performance metrics.

Text Books:

1. Karmakar, K. G. (2012). *Agricultural finance and management.* New India Publishing.
2. Muralidharan, E., & Sinha, S. (2018). *Rural finance & microfinance in India.* Sage Publications India.
3. Prasanna Chandra. (2017). *Projects: Planning, analysis, selection, financing, implementation and review* (9th ed.). Tata McGraw-Hill Education.
4. Subba Reddy, S., & Raghu Ram, P. (2020). *Agricultural Finance and Management.* Oxford & IBH Publishing.
5. Singh, S. (2019). *Agri Business and Rural Finance.* Himalaya Publishing House.

Reference Books:

1. NABARD. (2022). *Annual Report.* NABARD Publications, Mumbai.
2. Rangarajan, C., &Sundaram, K. P. M. (2020). *Indian Economy: Agri and Rural Perspectives.* S. Chand Publishing.
3. Deshmukh, A. (2018). *Agri Business Management in India.* Everest Publishing House, Pune.

Syllabus As per NEP 2020 of Business Analytics
MBA IIIʳᵈ Semester

Semester III	MANB503B	Database Management System (DBMS)
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Objectives

The course aims to provide students with an in-depth understanding of modern database systems and their applications in Business Analytics. The focus is on database design, querying, optimization, and advanced concepts including emerging database technologies, so that managers and analysts can leverage data effectively for strategic decisions.

Course Outcomes (COs)

CO #	Cognitive Abilities	Course Outcomes
CO1	Remembering	Remember fundamental concepts, objectives, and functions of PPC. *(Bloom's: Remembering)*
CO2	Understanding	Demonstrate understanding of database concepts, models, and architectures in a business context.
CO3	Applying	Apply relational database principles using SQL for business data analysis and reporting.
CO4	Analyzing	Analyze database design choices and evaluate normalization, indexing, and integrity constraints for efficient business data handling.
CO5	Evaluating/ Creating	Assess various database technologies (SQL, NoSQL, NewSQL, Cloud DBs) for suitability in business analytics and decision-making Design and develop relational and non-relational database solutions for business analytics applications.

Unit-I	Introduction to Database Management System
	- Role of data and databases in business analytics and decision-making
	-Database system concepts & architecture
	- Data models: hierarchical, network, relational, object-oriented, NoSQL models
	- Database users and administrators, DBMS vs. traditional file systems
	- Business case: How companies use DBMS for customer insights & operations
Unit-II	Relational Database Model & SQL

	- Relational data concepts: entities, relationships, attributes, keys
	- Introduction to SQL: DDL, DML, DCL, TCL
	- Query formulation for analytics: filtering, joining, grouping, aggregations
	- Views, sub queries, constraints, indexes
	- Business application cases: customer segmentation queries, sales analysis queries
Unit-III	**Unit 3: Database Design & Normalization**
	- Entity-Relationship (ER) modeling, Enhanced ER concepts
	- Mapping ER model to relational schema
	- Database normalization: 1NF, 2NF, 3NF, BCNF & denormalization
	- Integrity constraints, functional dependencies
	- Practical case: Data warehousing schemas (Star & Snowflake) for BI applications
Unit-IV	**Advanced Database Concepts**
	- Transaction management: ACID properties
	- Concurrency control & deadlock handling
	- Database security & authorization
	- NoSQL databases: types (Document, Key-Value, Columnar, Graph) and applications in Business Analytics
	- Cloud-based databases (AWS RDS, Google BigQuery, Microsoft Azure SQL)
Unit-V	**Emerging Trends & Business Applications**
	- Data warehouses, data lakes & integration with BI tools
	- Big Data and distributed databases (Hadoop, Spark SQL, Hive)
	- Database applications in machine learning & predictive analytics
	- Case discussions: Netflix recommendation engine, Retail analytics using DBMS, Healthcare databases
	- Ethical issues in managing and analyzing business data
Texts Books	1. Elmasri, R., & Navathe, S. B. – *Fundamentals of Database Systems* (7th Edition, Pearson) 2. Ramakrishnan, R., & Gehrke, J. – *Database Management Systems* (McGraw-Hill) 3. Coronel, C., & Morris, S. – *Database Systems: Design, Implementation & Management* (Cengage Learning) 4. Pramod J. Sadalage & Martin Fowler – *NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence* 5. Foster Provost & Tom Fawcett – *Data Science for Business* (for business analytics applications) 6. Case studies and research articles from Harvard Business Review , McKinsey Insights, and *MIS Quarterly* focusing on analytics applications of databases.

Reference Books	1. **Database System Concepts** – *Abraham Silberschatz, Henry F. Korth, S. Sudarshan*
	     o Most popular & standard book for DBMS concepts, ER diagrams, normalization, SQL.
	 2. **Database Systems: The Complete Book** – *Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer Widom*
	     o Covers both theory + practical implementation of DBMS, transactions, concurrency.

	3. **Fundamentals of Database Systems** – *Ramez Elmasri, Shamkant B. Navathe*
	   ○ Detailed book with strong coverage on ER modeling, relational algebra, normalization.
	4. **An Introduction to Database Systems** – *C.J. Date*
	   ○ Classic book, great for deep understanding of relational database theory.

Suggested Pedagogy	Case-based teaching - Lab sessions with SQL, MySQL/PostgreSQL/Oracle - Use of analytics databases (Power BI, Tableau with SQL) - Group projects on dataset-driven business problems - Industry guest lectures on current DBMS practices

Note: - "This syllabus balances theory, hands-on SQL (relational), modern trends (NoSQL, big data, cloud DBs) , and business-focused cases —which is crucial for MBA (Business Analyst specialization)"

Syllabus As per NEP 2020 of Business Analytics
MBA IIIrd Semester

SEMESTER III	MANB504B	Fundamentals of Python
3 CREDITS	LTP – 2:0:1	Discipline Specific Core

Course Objective

To equip students with the knowledge and programming skills required to write, execute, and analyze Python programs effectively, enabling them to manipulate data, automate tasks, and apply computational techniques for solving business and analytical problems in a cost-effective and efficient manner

Course Outcomes

CO	Cognitive Abilities	Course Outcomes
CO1	UNDERSTAND	Explain Python fundamentals, syntax, control flow, and data structures.
CO2	APPLY	Write Python programs to handle, clean, and process business datasets.
CO3	ANALYZE	Analyze business problems using Python libraries for data handling and visualization.
C04	CREATE	Develop scripts and mini-projects applying Python to business analytics tasks.
CO5	EVALUATE	Assess and validate outputs of Python-based solutions for business decision-making

UNIT 1	**Python Basics & Control Structures** • Introduction to Python, installation & IDEs (Jupyter, Colab) • Syntax, indentation, keywords, variables, constants, data types • Operators: arithmetic, relational, logical, assignment, bitwise • Input/output statements • Control flow: conditional statements (if, if-else, nested if) • Loops: for, while, nested loops, break, continue, pass
UNIT 2	**Data Structures & Functions in Python** • Strings: operations, slicing, formatting, string methods • Lists: creation, indexing, slicing, list methods • Tuples: immutability, tuple operations • Sets: creation, operations, methods • Dictionaries: key-value pairs, methods • Functions: definition, arguments, return values, recursion • Modules & packages: importing, using built-in and custom modules.

	Exception handling
UNIT 3	**File Handling & Data Handling with Python** • File operations: open, read, write, append, file modes • Handling text, CSV, and Excel files • Introduction to NumPy: arrays, operations, indexing, slicing • Introduction to Pandas: Series, DataFrame, loading data from files • Data cleaning: handling missing values, duplicates, renaming, formatting
UNIT 4	**Visualization & Applications in Business Analytics** • Introduction to Matplotlib: line plot, bar chart, histogram, scatter plot • Seaborn basics: categorical plots, distribution plots, heatmaps • Descriptive statistics in Python: mean, median, mode, correlation • Case Study 1: Visualizing sales/marketing data

Suggested Text Books/Cases/Readings:	• Reema Thareja – Python Programming (Oxford University Press, India) • E. Balagurusamy – Python Programming: A Modern Approach (McGraw Hill India)
Reference Books	• Dr. D. Nageswara Rao – Core Python Programming (BPB Publications) • Ashok Namdev Kamthane, Amit Ashok Kamthane – Programming and Problem Solving with Python (McGraw Hill Education) • Wes McKinney – Python for Data Analysis (O'Reilly

Syllabus As per NEP 2020 of Business Analytics
MBA IIIrd Semester

SEMESTER III	MANB505B	Introduction to R
3 CREDITS	LTP:2:0:1	Discipline specific core

Course Objectives:

This course aims to provide foundational knowledge of R programming for business analytics. It introduces students to R syntax, data structures, data manipulation, and visualization techniques. Students will develop analytical skills to process, analyze, and visualize business data using R for decision-making.

Prerequisite: Familiarity with Microsoft Excel for data handling. Fundamental understanding of Business Analytics concepts.

Course Outcome:

CO	Cognitive Abilities	Course Outcomes
CO1	UNDERSTAND	Explain the basic concepts, environment, and syntax of R programming.
CO2	APPLY	se R data structures and perform data import, manipulation, and preparation for analysis
CO3	ANALYZE	Construct appropriate data visualizations and statistical summaries using R packages like ggplot2, dplyr, and tidyr.
C04	CREATE	Develop R-based business analytics solutions integrating data cleaning, visualization, and statistical modeling.

UNIT 1	Introduction to R Programming, Overview of R and its IDEs (RStudio). Basics of R, syntax and programming concepts, Data types: R Numbers, Math. , Boolean, variables, and operations in R. Statements in R : If-else, while loop, for Loop, R Function.
UNIT 2	Data Structure in R : R Vector, R Lists, R Matrices, R Array, R Data Frames, R Factor, Data Manipulation and Preparation : Importing and exporting data in R, Knowing how to read data from files (CSV, Excel, etc.) and databases, Data filtering, sorting, summarizing, and transforming data sets, Data cleaning and preparation with dplyr, Data transformation using tidyr.
UNIT 3	Data Visualization : Visualizing data is key to understanding the underlying patterns and communicating insights. Learn to use ggplot2 and other visualization packages for creating compelling data visualizations. Graphics & Statistics : R-Plot, R Line, R Scatterplot. R Pie chart, R Bars, R-Histogram , R-Statistic , R data Set, R Max-Min, R Mean Median & mode, Logical Regression. Introduction to R an Database.

SuggestedText Books/Cases/Reading	1. Mohsen Nady (Author) Introduction to R Programming Language Hardcover Import, 30 December 2021
	2. G Jay Kerns (Author) Introduction to Probability and

	Statistics Using R Paperback – Import, 10 January 2010
Reference Books	1. Dr. Bharatendra Rai (2019), Business Analytics Using R – A Practical Approach, McGraw Hill Education India. 2. SeemaAcharya (2018), Data Analytics using R, McGraw Hill Education India. 3. Deepak Gupta (2017), Practical Data Science with R, Packt India. 4. Sudha G. Purohit& Suresh D. Purohit (2015), Statistics Using R, Narosa Publishing House

Notes: Internal assessment of 30 marks in that need to the 15 marks practical manual, manual attached

- practical should be written in the following format:

1. Practical Number & Title:
2. Objective:
3. Theory (Brief)
4. R Program/Commands
5. Output (screenshot/interpretation)
6. Conclusion

Syllabus As per NEP 2020 of Business Analytics
MBA IIIrd Semester

SEMESTER III	MANB506B	Data Analytics Using Excel
3 CREDITS	LTP:2:1:0	Discipline specific core

Course Objective:
The objective of this course is to enable students to understand and apply Excel as a powerful tool for data analytics. It aims to develop skills in data cleaning, transformation, visualization, and statistical analysis using Excel functions and tools. The course equips learners with practical problem-solving abilities to analyze business data and support decision-making.

Prerequisite: Basic knowledge of Microsoft Excel (formulas, charts, and data entry), Fundamental understanding of statistics and data handling concepts.

Course outcomes

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	Understand	Explain the role of Excel in business analytics and interpret datasets using descriptive statistics tools.
CO2	Apply	Apply Excel functions (sorting, filtering, pivot tables, charts) to analyse business data for decision-making.
CO3	Analyze	Examine datasets using advanced Excel tools such as What-if Analysis, Goal Seek, and Scenario Manager
C04	Create	Design and present business dashboards and reports in Excel for effective decision-making.
CO5	Evaluate	Evaluate data-driven decisions using advanced Excel features such as Power Query and Data Models.

UNIT.1	Introduction to Excel and Basic Analytics Tools
	Excel Interface – worksheets, workbooks, cells, formatting. Data Entry, Cleaning, and Validation. Basic Functions and Formulas: SUM, AVERAGE, COUNT, IF, VLOOKUP, HLOOKUP, INDEX, MATCH.Logical and Text Functions in Data Analysis. Data Sorting, Filtering, Conditional Formatting.Introduction to Data Analytics and its importance in business.
UNIT 2	Data Summarization and Visualization
	Descriptive Statistics using Excel: Mean, Median, Mode, Variance, Standard Deviation.Data Summarization using Pivot Tables and Pivot Charts.What-If Analysis: Data Tables, Goal Seek, Scenario Manager.Data Visualization: Bar Charts, Pie Charts, Line Graphs, Histograms, Scatter Plots.Dynamic Charts and Sparkline.Dashboard Basics – creating interactive visual reports

UNIT 3	**Advanced Excel for Data Analytics** Power Pivot: Data model creation, relationships, and DAX functions.Advanced conditional formulas: Nested IF, IFS, SUMIFS, COUNTIFS, AVERAGEIFS.Array & Dynamic functions: UNIQUE, SORT, FILTER, SEQUENCE.Advanced charting: Waterfall, Sparkline, Heat maps, Histogram.Dashboard creation: Interactive dashboards using slicers, timelines, and KPIs.Case study: Building a Business Dashboard for decision-making. Best Practices for Data Presentation
UNIT 4	**Introduction to Data Visualization & Power BI Basic** - What is Data Visualization,Why visualize data,Common types of charts (Bar, Line, Pie, Table) and when to use them. - Getting Started with Power BI: Downloading and installing Power BI Desktop.Overview of the Power BI interface (Report, Data, and Model views). - Loading Data into Power BI :Importing data from Excel/CSV files.Understanding datasets and fields. - Creating Your First Visualization:Drag-and-drop chart creation.Formatting visuals (colors, titles, legends). Lab Work / Hands-On Activities: - Install Power BI Desktop. - Load a sample dataset (e.g., Sales Data from Excel). - Create 3 basic charts (Bar, Line, and Pie) and format them - Power Query: Importing, cleaning, and transforming data.

Suggested Text Books/Cases/Readings:	1. **Mustafa Ali (Author)**Business Analytics with Excel Kindle Edition 2. **R. Panneerselvam (Author)**Business Statistics Using Excel: A Complete Course in Data Analytics Hardcover – Import, 22 December 2023 3. **Joe Penn (Author)** Data Analysis With ExcelKindle Edition 4. **KavithaVenkatachari (Author)**Fundamentals of Business Analytics Using Excel And R: Practical Manual For Beginners Paperback – 28 October 2016

Reference Books	1. **Deepak Bhattacharya** – Data Analytics with Excel, BPB Publications.
	2. **R. Panneerselvam** – Business Analytics, PHI Learning India.
	3. **Manoj Kumar Srivastava** – Business Statistics using Excel, Pearson India.
	4. **Anuradha Gupta** – Practical Business Analytics using Excel, S. Chand Publishing

Syllabus As per NEP 2020 of Business Analytics
MBA IVth Semester

Semester IV		Advance Statistical Analysis.
Credits : 3	LTP: 3:0:0	Discipline Specific Core

Course Outcomes (COs):

The objective of this course is to provide students with a strong foundation in advanced statistical tools and techniques, enabling them to apply appropriate models for business decision-making and predictive analysis. It aims to develop critical analytical skills for interpreting real-world data, foster creativity in designing statistical models for problem-solving, and cultivate the ability to evaluate and validate statistical outputs for robustness, reliability, and practical usefulness.

CO Code	Cognitive Abilities	Course Outcomes – After completing this course, the student will be able to :
CO1	Remembering	Recall and describe fundamental statistical concepts, probability distributions, and data types relevant to business research.
CO2	Understanding	Explain advanced statistical methods and interpret their applications in business and management contexts.
CO3	Applying	Apply appropriate regression, multivariate, and time-series models for solving business decision-making and predictive analytics problems.
CO4	Analyzing	Examine and critically analyze complex business datasets using advanced statistical and data reduction techniques to draw meaningful insights.
CO5	Evaluating/Creating	Assess statistical outputs for robustness and reliability, and design innovative statistical or predictive models for real-world business problem-solving.

Unit-I	Foundations of Advanced Statistics
	- Review of inferential statistics: hypothesis testing, confidence intervals
	- Types of data & measurement scales in business research
	- Probability distributions and their business applications
	- Introduction multivariate analysis framework
	Learning Outcome: Recall and describe statistical fundamentals for advanced analysis.
Unit-II	Regression Techniques
	- Multiple Linear Regression – assumptions, diagnostics, interpretation
	- Logistic Regression for classification problems
	- Ridge, Lasso, and Elastic Net Regression (regularization methods)

	- Applications in pricing, risk assessment, and marketing analytics
	Learning Outcome: Explain regression models and interpret their use in business contexts.
Unit-III	**Multivariate and Data Reduction Techniques**
	- Factor Analysis & Principal Component Analysis (PCA)
	- Cluster Analysis – hierarchical & non-hierarchical methods
	- Discriminant Analysis for classification
	- Case Studies: Customer segmentation, market basket analysis
	Learning Outcome: Apply multivariate and data reduction techniques for decision-making.
Unit-IV	**Time Series and Forecasting**
	- Time Series components – trend, seasonality, cyclicity
	- AR, MA, ARIMA, SARIMA models
	- Exponential Smoothing methods (Holt-Winters)
	- Applications in sales, demand forecasting, stock market analysis
	Learning Outcome: Analyze time-dependent business data and build forecasting models.
Unit-V	**Advanced Predictive & Prescriptive Analytics**
	- Survival Analysis & Cox Regression
	- Decision Trees, Random Forests (intro to ensemble methods)
	- Introduction to machine learning for business analysts
	- Model Evaluation Metrics: AIC, BIC, ROC, RMSE, Cross-validation
	- Ethical implications of business analytics
	Learning Outcome: Evaluate statistical models and create innovative predictive solutions for real-world problems.
Core Texts	1. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. Multivariate Data Analysis. Pearson.
	2. Gupta, S.C. & Kapoor, V.K. Fundamentals of Applied Statistics. Sultan Chand & Sons.
	3. Bowerman, B. L., O'Connell, R. T., & Koehler, A. Forecasting, Time Series, and Regression. Cengage.
Additional Reference Books	James, G., Witten, D., Hastie, T., &Tibshirani, R. An Introduction to Statistical Learning with Applications in R. Springer.
	Anderson, D. R., Sweeney, D. J., & Williams, T. A. Statistics for Business and Economics. Cengage.
	Case studies from Harvard Business Review (Data-driven decision making, Forecasting challenges).
	Research articles and white papers from industry reports (McKinsey, Deloitte, PwC on Business Analytics trends).
Pedagogy & Learning Methods	Lectures + Hands-on workshops (R / Python / SPSS / SAS)
	Case-based learning (real business datasets)
	Group projects on developing predictive models
	Class presentations & Interpretations of statistical outputs

Syllabus As per NEP 2020 of Business Analytics
MBA IVth Semester

Semester IV		AI in Business Application
Credits : 3	LTP: 3:0:0	Discipline Specific Core

CO	Cognitive Abilities	COURSE OUTCOMES
CO1	Remember	The fundamental concepts of Artificial intelligence (AI).
CO2	Understand	Explore AI applications across various business functions and industries.
CO3	Apply	The impact of AI on business models, processes and decision-making.
C04	Analyze	Analysis of Business challenges and opportunities for deployment of data mining,
CO5	Evaluate	Develop critical thinking skills to evaluate ethical and legal implications of AI adoption.
CO6	Create	The ethical implications and societal impacts of AI technologies.

UNIT 1	**Introduction to Artificial Intelligence** • Overview of AI and its importance in various industries. • AI techniques and approaches: search algorithms, knowledge representation, and reasoning. • Intelligent agents and problem-solving strategies. • AI in real-world applications: challenges and opportunities. • Introduction to popular AI tools &technologies, Artificial Intelligence driven innovations& Use of AI tools and technologies in business.
UNIT 2	**AI in Data Science and Machine Learning** • Role of AI in Data Science and Machine Learning (ML). • Supervised and unsupervised learning algorithms. • Regression, classification, clustering, and anomaly detection. • Model evaluation techniques: accuracy, precision, recall. F1-score, and ROC curves.
UNIT 3	**AI in Natural Language Processing (NLP)** • Introduction to NLP and its challenges. • Text pre-processing techniques: tokenization, stemming. lemmatization. • Text classification, sentiment analysis, and named entity recognition.

	• Applications of NLP in chatbots, information retrieval, and machine translation.
UNIT 4	**Search and Data Mining** • Introduction to search and recommendation systems • Internet search, page rank, knowledge graph, Ethical implications and responsibilities, Applications of data mining, Personalisation, Micro-segmentation, Unsupervised learning, Evaluation metrics, Customer database, Business challenges and opportunities for deployment of data mining. • Opportunities for deployment of data mining within your organisation
UNIT 5	**AI Applications Across Business Domains** • **Marketing & Sales**: Predictive analytics, customer segmentation, AI-driven campaigns. • **Finance, Accounting & Taxation**: Forecasting, automation in ledger management, tax compliance tools. • **HR & Talent Management**: Recruitment automation, onboarding bots, employee analytics. • **Supply Chain & Operations**: Inventory optimization, demand forecasting, logistics analytics. **Business Process Automation**: From RPA to Intelligent Process Automation (IPA), streamlining tasks with AI. • Impact of AI on Business Activities.
UNIT 6	**Ethical and Legal Considerations:** • Ethical issues: fairness, bias, accountability, and transparency in AI applications. • Regulatory and societal challenges: privacy concerns, job displacement, and automation. • Future trends in AI applications: Artificial General Intelligence (AGI), AI in creativity and art. • Human-AI collaboration and the future of AI in society. • Legal frameworks for AI adoption, Regulatory compliance and data protection laws.
	SUGGESTED TEXT BOOKS/CASES/READINGS.
	• Ajay Agrawal, Joshua Gans, Avi Goldfarb, "Prediction Machines: The Simple Economics of Artificial Intelligence", HBR Press. • J. Nilsson, "Artificial Intelligence: A new Synthesis", Elsevier Publishers. • Nitin Mittal and Thomas H. Davenport, "All-in On AI: How Smart

Companies Win Big with Artificial Intelligence", HBR Press.

- S. Russel and P. Norvig, "Artificial Intelligence – A Modern Approach", Pearson Education.

Syllabus As per NEP 2020 of Business Analytics
MBA IVth Semester

Semester IV		Machine Learning Using Python
Credits : 3	LTP: 2:0:1	Discipline Specific Core

Course Objective:

To equip students with the knowledge and analytical skills required to understand, design, and implement machine learning models using Python, enabling them to process business data, generate predictive insights, and develop data-driven solutions that enhance decision-making, efficiency, and competitiveness in modern business organizations.

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain Python fundamentals and ML applications in business analytics.
CO2	APPLY	Apply pre-processing, visualization, and ML models on business data.
CO3	ANALYZE	Compare and analyze supervised and unsupervised models for decision-making.
C04	CREATE	Build predictive ML models to solve real-world business problems.
CO5	EVALUATE	Evaluate ML models and discuss ethical implications in business analytics.

UNIT 1	**Introduction to Python & Machine Learning** • Basics of Python programming: syntax, data types, functions • Data structures: lists, dictionaries, tuples, sets • Libraries for ML: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn • Introduction to Machine Learning: concepts, types (supervised, unsupervised) • ML in Business Analytics (applications in marketing, HR, finance, operations)
UNIT 2	**Data Preprocessing & Visualization** • Data import/export (CSV, Excel, Databases) • Handling missing values, outliers, categorical encoding • Feature engineering and scaling (normalization, standardization) • Data visualization with Matplotlib & Seaborn • Exploratory Data Analysis (EDA) techniques • Case Study: Customer behaviour analytics

UNIT 3	**Supervised Learning for Business Analytics** • Regression: linear, multiple, logistic regression • Classification models: decision trees, random forests, SVM, KNN, Naïve Bayes • Model evaluation: accuracy, precision, recall, F1-score, ROC curve • Cross-validation, regularization, over fitting & under fitting • Hyper parameter tuning techniques • Case studies: Sales forecasting & Customer churn prediction
UNIT 4	**Unsupervised & Advanced ML** • Clustering: K-Means, Hierarchical, DBSCAN • Dimensionality reduction: PCA • Association rule mining: Market Basket Analysis • Introduction to Time Series forecasting: ARIMA, Prophet • Introduction to Text analytics & Sentiment analysis • Ethical AI: fairness, transparency, and bias in ML • Case studies: Customer segmentation, Sentiment analysis of reviews

Suggested Text Books/Cases/Readings:	• Seema Acharya & Subhashini Chellappan – Machine Learning Using Python (Wiley India, 2018) • Pratap Dangeti – Statistics for Machine Learning (Packt / BPB Publications, Indian Edition) • K.P. Soman, R. Loganathan & V. Ajay – Machine Learning with SVM and Other Kernel Methods (PHI Learning, India) • Rajaraman V. – Foundations of Data Science (Universities Press, India) • E. Balagurusamy – Python Programming: A Modern Approach (McGraw Hill India) • Harrington, P. (Indian Reprint by SPD) – Machine Learning in Action • Seema Thareja – Python Programming (Pearson India)

Syllabus As per NEP 2020 of Business Analytics
MBA IVth Semester

emester IV		Data Visualization
Credits : 3	LTP: 2:0:1	Discipline Specific Core

Course Objective:
To equip students with the knowledge and analytical skills required to design, develop, and interpret effective data visualizations, enabling them to transform complex business data into meaningful insights for informed decision-making, strategic planning, and enhanced competitiveness across diverse business domains.

Course Outcomes

CO	COGNITIVE ABILITIES	COURSE OUTCOMES
CO1	UNDERSTAND	Explain the principles of data visualization and its importance in business decision-making.
CO2	APPLY	Use visualization tools (Excel, Tableau, and Python/R) to represent data effectively.
CO3	ANALYZE	Critically analyze datasets to identify suitable visualization techniques.
C04	CREATE	Develop interactive dashboards and reports for business insights.
CO5	EVALUATE	Assess the effectiveness of visualizations in solving real-world business analytics problems.

UNIT 1	**Introduction to Data Visualization**
	• Importance of data visualization in Business Analytics
	• Fundamentals of visual perception and cognitive load
	• Types of charts and graphs – when to use what
	• Design principles: clarity, accuracy, aesthetics, storytelling
	• Tools overview: Excel, Tableau, Python, Power BI
	Practical: Create comparative charts in Excel for sales & marketing data
UNIT 2	**Data Visualization with Excel & Spreadsheets**
	• Data cleaning and preparation in Excel
	• Basic charts: bar, line, pie, scatter
	• Pivot tables and pivot charts
	• Conditional formatting & sparklines

	• Dashboards in Excel for business KPIs
	Practical: Build an Excel dashboard for financial performance analysis
UNIT 3	**Data Visualization with Python** • Introduction to Python visualization libraries (Matplotlib, Seaborn, Plotly) • Plotting time series, categorical, and numerical data • Heatmaps, pairplots, distribution plots • Interactive plots with Plotly • Case study: HR analytics visualization using Seaborn **Practical**: Visualize employee attrition data using Seaborn & Plotly
UNIT 4	**Advanced Visualization with Tableau / Power BI** • Introduction to Tableau/Power BI environment • Connecting datasets, data blending • Building interactive dashboards • Geospatial visualizations (maps) • Business storytelling with dashboards **Practical**: Create a Tableau dashboard for sales forecasting & customer segmentation
UNIT 5	**Applications of Data Visualization in Business Analytics** • Visualization for different domains: Marketing, Finance, HR. Supply Chain • Visualization for Big Data and Real-Time Analytics • Best practices and ethics in data visualization • Case study: Business performance monitoring with dashboards • Mini Project: Visualization-based decision support for a chosen business dataset **Practical**: Develop a full business dashboard integrating multiple KPIs

Text Books:	1. Cole Nussbaumer Knaflic – Storytelling with Data: A Data Visualization Guide for Business Professionals (Wiley) 2. Seema Acharya – Data Analytics Using Python (Wiley India)
Reference Books	1. Partha Dey – Business Analytics Using R – A Practical Approach (McGraw Hill India)

	2. Anil Maheshwari – Data Analytics Made Accessible (McGraw Hill India Edition)
	3. Ashutosh Aggarwal – Practical Business Intelligence with Power BI (Packt India Edition)
	4. Ben Fry – Visualizing Data (O'Reilly)
	5. Kieran Healy – Data Visualization: A Practical Introduction (Princeton University Press, Indian Reprint)

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR

Faculty of Commerce & Mangement

Syllabus as per NEP 2020 of Hospital Administration

MBA IIIrd Sem and IV th Sem

Affiliated Colleges,

From the Academic Year 2025- 26 & Onwards/

Syllabus As per NEP 2020 of Hospital Administration

MBA IIIrd Sem and MBA IVth Sem.

Specialization – Hospital Administration IIIrd Sem

Sem	Course	Ref. No.	Subject Title	Credit	Exam Hrs.	Marks Internal	End Sem Exam	Total
III	Mandatory / Discipline specific elective (DSE) (HA)	MANB503 AA	Management Process in Hospitals	3	1.5	30	45	75
		MANB504 AA	Human Resource Management in Health Organizations	3	1.5	30	45	75
		MANB505 AA	Business lows and Medco - Legal Systems	3	1.5	30	45	75
		MANB506 AA	Medical Record and Documentation	3	1.5	30	45	75

Semester III		MANB-503AA : MANAGEMENT PROCESS IN HOSPITALS
3 Credits		

Objective : The Objective of the course is introduce management concepts and process with a focus on leadership and human behavior in organization.

Course outcomes:

CO#	Cognitive Abilities	Course outcomes
CO1	Understand	Students with the knowledge and Skills to Effectively manage health care organization.
CO2	Apply	Various Practices & Existing in Hospitals.
CO3	Analyze	Different function of Planning, organizing, Staffing & Decision making.
CO4	Create	Matching Qualification with positions requirements and orientation, socializing new employees.
CO5	Evaluate	Critical control points and standards with health care organization in development and change process.

Detailed course Plan :

Unit 1	INTRODUCTION TO MANAGEMENT FUNCTIONS Introduction lo management - An art or science Functions of the manager - Corporate Strategic Planning - Mission and Vision of organization - Development, maintenance and role of a Leader- Strategic: Management h India -Family-run Corporate.
Unit 2	PLANNING Introduction to planning - Characteristics of Planning - Participants in planning - Planning constraints or boundaries - Characteristics of effective plans Philosophy or underlying purpose - Functional objectives - Policies and procedures - methods and rules - Space and renovation planning - Management By Objectives (MBG) - Introduction to MBO & 50 concepts - MBQ -Historical development S advantages of MBO
Unit 3	DECISION MAKING Introduction to decision making - participants in decision making - Evaluating a decision's importance - Steps in decision making - Barriers to rational choice - Bases for decision making - Decision making tools 5 techniques - Health care practitioners as decision makers - Case studies & clinical reason capability analysis tools - control charts- models- clinical reasoning ORGANIZING Introduction to organizing concepts - the process of organizing - fundamental principles arid span of management - One & staff relationships - the dual pyramid form of organization in health care - Basic department & flexibility In organizational structure - the organizational char - job description - Concept of Re - engineering - the Organisation as a total system - formal V/s informal organisation - classification of health care organization – Classic bureaucracy -Consequences of organizational form - the Nature and purpose of Strategic and Policies - the strategic planning process - the TOWS Matrix, A Modern Tool for Analysis of the situation - (I) the portfolio matrix A Tool for Allocating Resources - Major kinds of Strategies and Policies three

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	Genetic Competitive Strategies by Porter - Effective Implementation of Forecasting.
Unit 4	STAFFING Definition of staffing – Defining the Managerial job – The Systems Approach to Human Resource Management – Situational factors affecting Staffing – selection: Matching the person with the job – system Approach to selection – Position requirement and Job Design – skills and personal Characteristics Needed by Managers – Matching qualification with Position Requirements – Orienting and Socializing New Employees.
Unit 5	CONTROLLING The Basic Control Process - Critical Control Points and Standards - Control as a feedback Systems - feal - Time Information and control - Feed forward Control - Requirements or Effective Control - Control Techniques; The Budget - Traditional Nan budgetary control Devices - time Event Network Analysis - Organizational Behavior - Emergence of OB - Personality, Values and attitudes - Learning and Perception - Individual and Group Behavior - Elton Mayo theory - Behavioural characteristics - Theories of Motivation - Personality Types - Leadership & Group Development -Organisational Change and Development ~ Change Process - Ob interventions -Organizational Conflicts - Organizational Culture- Organizational Effectiveness.

SUGGESTED READINGS:

1. Management Principles for health Professionals 2nd edition (1992) - Joan Grantor Liebley. Roth Eller Louvine, Jeffrey Rothman, Aspex Publication. Gaithersburg. Marylnd.
2. Principles of Management - G. Venkatesan (1994) J.J. Publisher, (Madurai).
3. Management In Health Care - A Theoretical and Experiential approach (1997) Elaine Lynnela Monica and Philip lan Morgan. Macmillan Publishers.
4. Essentials of Management - Harold Konnti weihrlch Tata cGraw Mil Fifth Edition.
5. Mirza, S. Sailyadain, "Organizational Behavior", Tata McGraw Hill Publishing Company Ltd New Delhi, 2003.
6. Fied luthans, "Organizational Behaviour", McGraw Hill Education (Asia), 2005.
7. Steven L McShane and Mary Ann Vougllnow, "Organisational Behaviour TataMcGraw'' Hill Pushing Company Ltd., New Delhi, 2005,
8. Angelo Kinichi ttinichl and flobert Kreltner "Organizational Behaviour - Concepts Skills and Pnctkts", Tata McGraw Hill Company Ltd., New Delhi, 2006.

Semester III		MANB-504AA – Human Resource Management in Health Organizations
3 Credits		

Objective : The objective of the course is to acquaint the learner with various concepts principles of HRM in Hospitals.

Course outcomes: Course outcomes:

CO#	Cognitive Abilities	Course outcomes
CO1	Remembering	Effectively manage core HRM- Functions like recruitment Training and performance Management.
CO2	Understand	Develop and analyze HR Challenges and contribute to strategic decision making.
CO3	Apply	To gain practical skills in Ethical decision making with An HR-context.
CO4	Analyze	Principles of wage administration and wage fixation
CO5	Evaluate	Role of state in industrial relation IR with trade union, blue collar vs white collar union association of doctors

Detailed course Plan :

Unit 1	Definition of Hospital HRM importance of HRM in Hospitals – Nature of HR in Hospitals Objective of HR in Hospital, Functions of HRM principles of HRM – Functions and role of HR Manage.
Unit 2	HR Planning and Development – Significance – Importance of HR Planning – Factors influencing HR Planning process – Job Analysis – Recruitment – Selection Induction & Orientation Programs
Unit 3	Training and development Training Need Identification – Methods of Training – Executive Development – Evaluation of Training Effectiveness – Performance Appraisal – Techniques Traditional Vs. Modern Methods – Limitations of Appraisal.
Unit 4	Compensation and Benefits – Wage Concepts – Principles of Wage Administration – Wage Fixation – Employee incentives and Benefits – ESOPs – Role of Monetary and Non-monetary Benefits.
Unit 5	Industrial Relations – Factors affecting industrial Relations Role of State in IR – Trade Unions- Blue Collar Vs. White Collar Unions Association of Doctors, Nursing Staff Paramedical Industrial Disputes, Consequences, Preventive and Settlement Machinery – (Case Studies Compulsory)

SUGGESTED READINGS:

1. Goyal, R.C. Hospital Administration and Human Resource Management, Prentice Hall of India Private Limited New Delhi 2010

2. K. Aswathappa : "Human Resource and Personnel Management 0 Text and Cases" Tata McGraw Hill Publishing Company Limited New Delhi, 3rd Ed , 2009

3. Lan Berdwell and Len Holden, Human Resource Management MacMillan, New Delhi.

4. Venkata Ratnam, C.S. and Srivastava B.K. Personne / Human Resource Management Tata McGraw Hill, New Delhi.

5. Satya Raju, R., Human Resource Response to New Corporate Initiatives, National Institute of Personnel Management, Calcutta

Semester III		MANB-505AA – Business Laws and Medico – Legal Systems
3 Credits		

Objectives : Hospital a place of subtle environment has its legal framework to protect the hospital as well as the patients. The relevant laws are imparted to the students keeping in mind the future needs to handle administrative routines in such issues.

Course outcomes

CO#	Cognitive Abilities	Course outcomes
CO1	Understand	Constitutional Provisions relating to health and medical practice.
CO2	Remembering	Medical Ethics and Conflicting Interest in Health care
CO3	Apply	Knowledge of laws on medical negligence.
CO4	Analyze	Liability of medical professionals under various laws.
CO5	Evaluate	Skill in determination of liability and compensation

Detailed course Plan :

Unit 1	**Constitutional Provisions relating to health and medical practice.** 1. Basic tenants of Constitutional Law 2. Preamble to the Constitution 3. Fundamental Rights and their application 4. Article 21 and its relevance in Health Care 5. Directive Principles of state Policy Medical Ethics and conflicting interest in Health care **A. Medico-legal aspects of clinical practice** 1. Medico-legal case 2. duties and obligation of Doctors **B. Pre-requisites of Medical Practice** **a. Consent** i. Relevance of Consent ii. Necessity of consent iii. Validity of consent iv. refusal of treatment v. Consent - vulnerable group vi. Consent in an emergency **b. Professional secrets/privileged communication**
Unit 2	**Introduction to law of Medical negligence** i. Negligence – Definition ii. essentials/components of negligence iii. Duty of care iv. Standard of care v. what is not negligence vi. Defenses to the law of negligence **Liability of Medical Professionals under various laws** i. Negligence as a tort ii. negligence under contract iii. Negligence as a crime iv. Negligence under the consumer law
Unit 3	**Determination of liability and compensation**

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	i. Liability under the general law
	1. Individual liability
	2. Vicarious liability
	ii. Liability under the consumer law
	1. Professional service
	2. Professional service free of cost
	3. Contract of personal service
	4. Deficiency in service
	Relevant Acts/legislations applicable to Hospitals and its Importance
	i. Indian Medical Council Act 1956 and code of conduct, ethics and etiquette
	ii. Dental Council Act
	iii. Indian nursing council Act
	iv. Transplantation of Human Organs Act 1994
	v. Medical Termination of Pregnancy Act 1971
	vi. Prenatal Diagnostics Techniques (Regulation and Prevention of Misuse) Act 1994
Unit 4	VIII. Biomedical Research
	i. Ethical issues
	ii. Relevance of ICMR guidelines
	iii. Relevance of Schedule Y guidelines (Drugs and Cosmetic Act)
	IX. Important Legal Aspects of Medical Documentation for
	1. Patients
	2. Physician/Doctors
	3. Hospital
	4. Public health
	5. Medical Education / Research
Unit 5	X. Law Relating to Death in Hospital
	XI. Law of Contracts
	1. Definition and Object of the Law of Contract
	2. Essential Elements of a Valid Contract
	3. Classification of Contract
	4. Definition of Consideration
	5. Legal Rules as to Consideration
	6. Remedies for the Breach of Contract

References:
1. Law of Medical Negligence and Compensation, R. K. Bag, second Edition, Eastern Law House.
2. Medical Negligence and Compensation, Dr. Jagadish Singh, 3rd edition, Bharat Publications.
3. Medical Technology and the Law, Harvard Law Review Vol. 103.1519.

Semester III		MANB-506AA - Medical Records and Documentation
3 Credits		

Objective: The objective of this course is to impart modem scientific medical and health information systems that conform to international standards. This provide an effective techniques for management of medical record services for practitioners to assist in patient care, computerization containing health care cost .evaluating quality of healthcare, medical education, medical research and healthcare administrative activities.

Course outcomes:

CO#	Cognitive Abilities	Course outcomes
CO1	Remembering	Knowledge of History of medical records administration, medical records in western and developing countries, opslip system, Departmental records system, unit record system, role of medical records in health care delivery, computerization of medical records, and format of medical records.
CO2	Understand	Understanding of Problem oriented medical records (POMR). database. problem list, patient care plan, progress notes, general medical records standards and procedure, assembling of forms in the medical records folders, medical record forms design, supply of medical records, and registration of medico -legal cases.
CO3	Create	Understanding of Staff medical records, laboratory, radiology and pharmacy records , maintenance and control of movements of medical records , registration of birth and death .issues of medical reports and certificates , hospital statistics . classification of diseases and operations, preservation of records , rights and responsibilities of patients .important medical records registers.
CO4	Analyze	Familiarity with Legal Aspects of Medical Records, Impact of Consumer Protection Act, Medical and Negligence, Documentation of the Medical Records, **Medical** Audit, Methods, **Audit Sheet, Benefits of Medical audit, Guidelines for** preparation **of Medical Reports.**
CO4	Evaluate	Familiarity with Hospital information system and medical records, designing computer based medical records information processing system, role of computers in today's medical office, flow of information in a medical office , building the patient file and data entry, posting ailment details, printing daily reports, organization and management of the medical records department- medical record procedures.

Courses Contents:

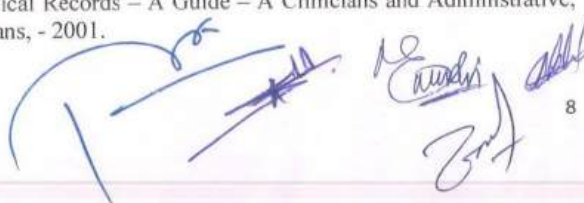|	
Medical Records administration: History	-1hr
Systems of medical records administration	-1hr
Role of medical records	- 1hr
Formal of medical records	- 1hr
Problem oriented medical records	- 1hr
Patient care plan progress notes	- 1hr
General medical records standards and procedure	- 1hr

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Supply of medical records   - 1hr
Registration of medico-legal cases   - 1hr
Staff medical records   - 2hrs
Registration of birth and death   - 1hr
Issues of medical reports and certificates   - 1hr
Classification of diseases and operations   - 2hrs
Preservation of records   - 1hr
Important medical record registers   - 1 hr
Legal aspects of medical records   - 1 hr
Medical malpractice and negligence   - 1hr
Documentation of medical records   - 2hrs
Media audit   - 2 hrs
Hospital Information System and medical records   -2hrs
Role of computers in today's medical office   - 1hr
Flow of information in u medical office   - 1hr
Organization and management of medical records department - 2hrs
Medical record procedure   - 1hr

Total   **- 30 hrs**

Detailed course Plan :

Unit 1	History of medical records administration, medical records in western and developing countries, opslip system, Departmental records system, unit record system, role of medical records in health care delivery, computerization of medical records, and format of medical records.
Unit 2	Problem oriented medical records (POMR), database, problem list, patient care plan, progress notes, general medical records standards and procedure, assembling of forms in (he medical records folders, medical record forms design, supply of medical records, and registration of medico -legal cases.
Unit 3	Staff medical records , laboratory, radiology and pharmacy records, maintenance and control of movements of medical records, registration of birth and death .issues of medical reports and certificates, hospital statistics , classification of diseases and operations, preservation of records , rights and responsibilities of patients. important medical records registers.
Unit 4	Legal Aspects of Medical Records, Impact of Consumer Protection Act, Medical and Negligence, Documentation of the Medical Records, Medical Audit, Methods, Audit Sheet, Benefits of Medical audit, Guidelines for preparation of Medical Reports.
Unit 5	Hospital information system and medical records, designing computer based medical records information processing system, role of computers in today's medical office, How of information in a medical office , building the patient file and data entry , posting ailment details, printing daily reports .organization and management of the medical records department- medical record procedures.

Reference Books:

1. Mogili -Medical Records Organization and Management, Jaypee Brothers Medical Publications Private Limited.

2. Jerome – H Carter Electrical Medical Records – A Guide – A Clinicians and Administrative, American College of Physicians, - 2001.

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Specialization – Hospital Administration IVth Semester

Sem.	Course	Ref. No.	Subject Title	Credit	Exam Hrs.	Marks		Total
						Internal	End Sem Exam	
IV	Mandatory / Discipline specific elective (DSE) (HA)	MANB507 AA	Financial Management and Accounting	3	1.5	30	45	75
		MANB508 AA	Operations Management in Hospital	3	1.5	30	45	75
		MANB509 AA	Legal Aspects Governing Hospital	3	1.5	30	45	75
		MANB510 AA	Marketing Management in Hospitals	3	1.5	30	45	75

Semester IV		MANB- 507AA - FINANCIAL MANAGEMENT AND ACCOUNTING
3 Credits		

Objective: The objective of the course is to introduce the concepts, tools and techniques of financial management to the learners.

Course outcomes

CO#	Cognitive Abilities	Course outcomes
CO1	Analyze	To gain Ability to analyze financial statements in health organization.
CO2	Evaluate	To develop and manage budgets with fund projection in health organization
CO3	Understand	To understand cost. Accounting and make informed decisions
CO4	Apply	To gain knowledge on theirs of capital structure.
CO5	Create	To understand concepts and approaches of working capital management-cash receivables profit sharing and forecasting.

Detailed course Plan :

Unit 1	Introduction to Financial Management – Meaning, Nature and Scope of Finance Function – Objectives of Financial Management – Profit Maximization Vs Wealth Maximization – Role of a Finance Manager – Methods and sources of Short-term and Long-term Finance.
Unit 2	Financial Statement Analysis: Understanding Basic Financial Statements – Ratio Analysis – Funds Flow Analysis – Cash Flow Analysis – BEP – Construction of Balance Sheets. Financial Accounting – Definition – Principles, Concepts and conventions, Trial Balance – Final Accounts – Depreciation Methods – Cost Accounting – Budgets
Unit 3	Investment Decisions – Cost of Capital – Computation of WACC – Capital Budgeting Process – Techniques of Capital Budgeting – Traditional and DCF Techniques of Investment Appraisal – C/B under Risk and Uncertainty.
Unit 4	Financing Decision – Financial leverage – Operating leverage – EBIT – EPS Analysis – Capital Structure Planning – Theories of Capital Structure – Dividend policy – Models of Dividend Policy – Practice – Bonus shares – Rights Issue.
Unit 5	Working Capital Management – Concepts and Approaches of Working Capital – Determinants of Working Capital – Management of Current Assets – Cash – Receivables – Inventory – Case Studies – Profit meaning and nature – Profit Policies – Profit planning and forecasting.

SUGGESTED READINGS:

1. Vyuptakesh Sharan, "Fundamentals of Financial Management", Pearson Education (Singapore) Pte. Ltd., 2005.
2. M.Y. Khan and P.K. Jain, "Financial Management Text, Problems and Cases", Tata McGraw Hill Publishing company Limited, New Delhi, 2006.
3. I.M. Pandey, "Financial Management", Vikas Publishing House Pvt. Ltd., 9th ed., 2008
4. Prasanna Chandra, "Financial Management Theory and Practice", Tata McGraw Hill Publishing Company Limited, New Delhi, 6th ed., 2004.
5. James C. Van Horne, Financial Management and Policy – 2007
6. Prasanna Chandra, Financial Management: Theory and Practices – 2009
7. Solomon, Ezra, The Theory of Financial Management – 2009
8. I.M. Pandey, Financial Management – 2008

Semester IV		MANB- 508AA - Operations Management in Hospital
3 Credits		

Objective: The objective of the course is to equip the learners with decision making skills in planning, scheduling and control of production and operation functions in hospitals.

Course outcomes:

CO#	Cognitive Abilities	Course outcomes
CO1	Understand	To equip students with the knowledge and skills in operational aspects – Product vs service operation, front office admission billing and medical records.
CO2	Apply	To focus on optimizing efficiency and patient care with types of patient of OPD and flow pattern of patients.
CO3	Analyze	Information system with input technology trends database analysis, changing patterns of patient records – software, electronic communication.
CO4	Evaluate	The location and layout techniques of work measurement.
CO5	Remembering	Inventory management, value management, financial aspects of purchasing.

Detailed course Plan :

Unit 1	Introduction to Concepts – Product vs. Service Operations – Front office – Admission – Billing – Medical Records – Ambulatory Care – Maintenance and Repairs Bio Medical Equipment.
Unit 2	Clinical Services – Clinical Departments – Out patient Department (OPD) – Introduction – Location – Types of patients of OPD – Facilities – Flow Pattern of patients – Training and Coordination; Radiology – Location – Layout – X-ray Rooms – Types of X-ray machines – Staff – USG – CT – MRI – ECG, PET Scan Supporting Services: House-keeping, Linen and Laundry, Food Services, Central Sterilization and gas-distribution system.
Unit 3	Need for Information System, IT as tool for competitive advances, Input technology trends, Database Analysis, Output Technology, Website Management, Electronic-medical records, networking Hospital Information System, data processing, Tele-communication, Satellite clinics, Changing patterns of patient records – Software, electronic communication, knowledge management, security and security measures in telecommunication.
Unit 4	Facility Location and Layout, importance of location, factors, general steps in location and selection decision process, types of layouts – techniques of work measurement, time and motion study. Productivity measures, value addition, capacity utilization.
Unit 5	Purchasing strategy process – organizing the purchasing function – financial aspects of purchasing – tactical and operational applications in purchasing management – Inventory Management; Valuation and accounting for inventory – physical location and control of inventory – planning and replenishment concepts – protecting inventory; value management, value engineering, value analysis.

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SUGGESTED READINGS:

1. Maduri Sarma, Essentials for Hospital Support Services and Physical Infrastructure, Jaypee Brothers Publications – 2008
2. Prabhu KM, Sood SK, Hospital Laboratory Services Organization and Management, Journal of Academy of Hospital Administration – 2010
3. Srinivasan, A.V. (ed.), Managing a Modern Hospital, Chapter 12, Response Books, New Delhi, 2009
4. Schoedev, Roger G., Operations Management – Decision Making in Operations Function, McGraw Hill, New Delhi, 2007.

Semester IV		MANB- 509AA - Legal Aspects Governing Hospital
3 Credits		

Objective: The Hospital being a part of the larger socio-political set up the student will be exposed to the legal and ethical issues pertaining to the Hospitals.

Course outcomes

CO#	Cognitive Abilities	Course outcomes
CO1	Remembering	To gain knowledge and skills to navigate complex legal landscape of health care.
CO2	Understand	Medico legal issues section 304A medical legal record
CO3	Apply	Law relating to health organization transplantation of human organs act 1994, registration of birth and death act.
CO4	Evaluate	Industrial relations in hospitals unrest and unfair labour practices and victimization.
CO5	Analyze	Doctor and Patient relationship, women safety committee.

Detailed course Plan :

Unit 1	Introduction: Legal Process and Procedure, Legal terminology, Basic understanding of Criminal Law, Civil Law (Law of Torts), Law of evidence, Establishment, Registration of Health-care organization, Typology of Healthcare organizations.
Unit 2	Medico-legal issues: Consumer Protection Act and issues arising from it. Indemnity insurance and Police investigations, Section 304-A, Death in Hospitals, Brought-dead in Hospital, Court Evidence. Medico-legal records, vicarious liability of hospital and staff, Biomedical Waste Registration.
Unit 3	Law relating to health organization – Trust Law, Law of Contract, Corporate Law, Commercial Law, Indian Medical Degree Act, 1916; Medical termination of Pregnancy Act, 1994; Transplantation of Human organs Act, 1994; Bombay Nursing Home Registration Act, 1949; Registration of Birth and Death Act, Maharashtra Medical Practitioners Act, 1961; Clinical Establishment Bill, 2010.
Unit 4	Unrest in hospitals, Dispute settlement mechanism, Arbitration, Role of Trade Unions, Unfair Labor Practices and Victimization, Disciplinary enquiry and action. Social Security and insurance.
Unit 5	Outsourcing of Activities and disputes arising out of it. Doctor-Patients relation. Duties towards patients of medical and para-medical staff and conflicts arising out of it. Women safety committee.

SUGGESTED READINGS:
1. S.L. Goel, Healthcare Management and Administration, Deep & Deep Publications Pvt. Ltd. New Delhi, 2010.
2. Srinivasan, A.V. (ed.), Managing a Modern Hospital, Chapter 12, Response Books, New Delhi, 2009.
3. Encyclopedia of Bio-medical Ethics – Two Volumes.

REFERENCES:
1. A.A. Deshpande, Legal Aspects in Ophthalmology, All Indian Ophthalmological Society.

Semester IV		MANB- 510AA -Marketing Management in Hospital
3 Credits		

Objective: The objective of this course is enhance the marketing skills of the student with special reference to Hospital marketing.

Course outcomes:

CO#	Cognitive Abilities	Course outcomes
CO1	Analyze	To gain Ability and Analyze health care market.
CO2	Understand	To develop marketing plans & manage marketing mix, market segmentation.
CO3	Evaluate	To Evaluate the effectiveness of marketing campaigns and designing health care services.
CO4	Apply	Internal and External marketing strategies, global target market selection and medical tourism.
CO5	Create	SERVQUAL Modal service recovery strategies and Telemarketing.

Detailed course Plan :

Unit 1	Core concepts of Marketing - Marketing Environment Analysis - Competition Analysis - The scope of Hospital Services Marketing - Changing marketing practices.
Unit 2	Service Characteristics and their strategic Implications, Service Consumer Behavior - Service Marketing strategy - Market segmentation - targeting and positioning - Service Marketing Mix -Service Triangle - Branding of Hospitals - Strategic Marketing Planning
Unit 3	Designing health care service products - New Service Development process - PIC - Physical evidence - Pricing Strategies, Channel management in Hospitals, Franchisee management. Identifying and analyzing competitors Designing competitive strategies.
Unit 4	Internal marketing – Importance and Objectives – Roles of a service employee – Internal marketing strategies; External marketing – Promotional campaign design Interactive marketing. Global Target Market Selection – Medical Tourism.
Unit 5	Service distribution; Service Demand and Capacity Management; Service Quality Management - GAP model, SERVQUAL model -Service recovery strategies-Telemarketing.

SUGGESTED READINGS:

1. Ramamohana Rao, K., Services Marketing, Pearson Education (Asia],

2. Kotler Philip, Marketing Management {Millennium Edition), PHI, New Delhi, 2006.

3. Zeithaml bitner, Yalaric A, Service Marketing - Cases In Marketing Management, MC Graw Hill, New York, 2007.

4. Snnivssan, R., Services Marketing (The Indian Context), Prentice Hall India, New Delhi, 2006 Bhattacharya. C., Services Marketing, Excel Books, New Delhi, 2006.

5. Ravi Shankar, Services Marketing (Indian Perspective), Excel Books New Delhi, 2004.

6. Christopher Lovelock & Jochen Wirtz, Services Marketing (People, Technology and Strategy), Peanon Education, New Delhi, 2004.

7. Saxena, Rajan. Marketing Management, Tata McGraw Hill, New Delhi, 2008

8. Still, Richard R, Edward W. Cundlff and Norman A.P, Govanl, Sales Management PHI New Delhi, 2007.

9. Milles Z   Bookman, Karia R. Bookman; Medical Tourism in Developing Countries Palgrave Macmillan, 2007.