

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE (Deemed to be University)

MADANAPALLE

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Department of Management Studies

Course Structure

&

Detailed Syllabi (R25)

For the students admitted to

Master of Business Administration from the Academic Year 2025 – 26 Batch onwards



MBA Regular Two Year P.G. Degree Course

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

(Deemed to be University)

MADANAPALLE

MBA Two Year Curriculum Structure

Total Credits	86 Credits for 2025 Admitted Batch onwards
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MBA - I YEAR I SEMESTER

S. No	COURSE CODE	I YEAR I SEMESTER COURSES	L	T	P	C
1	25MCMBATC01	Management and Workplace Behavior	3	0	0	3
2	25MCMBATC02	Business and Regulatory Environment	3	0	0	3
3	25MCMBATC03	Corporate Economics and Decision Making	3	0	0	3
4	25MCMBATC04	Financial Accounting and Analysis	3	1	0	4
5	25MCMBATC05	Entrepreneurship and Design Thinking	2	0	0	2
6	25MCMBATC06	Human Capital Management	3	0	0	3
7	25MCMBATC07	Statistical Analysis for Business	2	0	2	3
8	25MCMBASC01	Data Analytics Using Excel and GS	1	0	2	2
9		Audit Course I (Refer ANNEXURE - I)	2	0	0	0
Sub Total			22	1	4	23

MBA - I YEAR II SEMESTER

S. No	COURSE CODE	I YEAR II SEMESTER COURSES	L	T	P	C
1	25MCMBATC08	Finance for Business Leaders	3	0	0	3
2	25MCMBATC09	Marketing Strategy and Planning	3	0	0	3
3	25MCMBATC10	Production and Operations Management	3	1	0	4
4	25MCMBATC11	Strategic Management	3	0	0	3
5	25MCMBATC12	Business Data Analytics	2	0	2	3
6	25MCMBATC13	Business Research and Econometrics	3	0	2	4
7	25MCMBASC02	Corporate Communication	1	0	2	2
8	25MCMBAPC01	Rural Immersion Project	0	0	2	1
9		Audit Course II (Refer ANNEXURE - I)	2	0	0	0
Sub Total			20	1	8	23

(L = Lecture, T = Tutorial, P = Practical, C = Credit)

II Year I Semester (Tentative Structure)

S.No	COURSE CODE	II YEAR I SEMESTER COURSES	L	T	P	C
1	25MCMBATC14	Operations Research	3	1	0	4
2		Generic Elective I	2	0	0	2
3		Major – I	3	0	0	3
4		Major – II	3	0	0	3
5		Major - III	3	0	0	3
6		Minor – I	3	0	0	3
7		Minor – II	3	0	0	3
8	25MCMBAIC01	Internship*	0	0	4	2
Sub Total			20	1	4	23

* 6 Weeks Internship during I Year II Semester Summer Break and to be evaluated in II Year I Semester

II Year II Semester (Tentative Structure)

S.No	Course Code	II Year II SEMESTER COURSES	L	T	P	C
1		Major – IV	3	0	0	3
2		Minor – III	3	0	0	3
3		Open Elective - I	2	0	0	2
4	25MCMBAPC02	Comprehensive Project Work	0	0	18	9
Sub Total			8	0	18	17
Grand Total						86

(L = Lecture, T = Tutorial, P = Practical, C = Credit

LIST OF AUDIT COURSES

Audit Course I		
S. No	Course Code	Course Title
1.	25MCMBAAC01	E-Commerce and Digital Markets
2.	25MCMBAAC02	Managing Digital Innovation and Transformation
3.	25MCMBAAC03	Management Information Systems
4.	25MCMBAAC04	Business Process Re-Engineering
Audit Course II		
1.	25MCMBAAC05	Total Quality Management
2.	25MCMBAAC06	Multimedia Technologies
3.	25MCMBAAC07	Data Analysis using R
4.	25MCMBAAC08	Indian Knowledge System

MBA I Year I Semester

25MCMBATC01 MANAGEMENT AND WORKPLACE BEHAVIOUR

L	T	P	C
3	0	0	3

Pre-requisite: None

Course Description: This course Provides an overview of management and organizational behavior, covering managerial functions, leadership, individual and group dynamics, ethics, and workplace well-being. Emphasizes practical strategies for improving organizational effectiveness through case studies and applications.

Course Objectives:

1. To introduce basic concepts, evolution, and approaches of management.
2. To explain core managerial functions like planning, organizing, decision-making, and controlling.
3. To understand individual behaviour, personality, perception, attitudes, and motivation.
4. To study group behaviour, leadership, and conflict resolution.
5. To examine organizational culture, stress management, and workplace well-being.

UNIT I FOUNDATIONS OF MANAGEMENT

9 hours

Concept & Evolution of Management, Comparative Management Styles and approaches, Benchmarking & Best Practices, Management Levels & Roles, Hybrid Workplace & Challenges, Ethics & Social Responsibility, Management: Art or Science or Profession; Organization vs Administrations Management

UNIT II MANAGERIAL FUNCTIONS

9 hours

Planning: Process, problems, essentials, MBO (concept & applications), Organizing: Process, design, structure determinants, authority & responsibility, delegation, centralization vs decentralization, span of control; structures – Line & Staff, Functional, Divisional, Matrix, Network. Decision-Making: Process & techniques., Controlling: Process and techniques

UNIT III INDIVIDUAL BEHAVIOUR

9 hours

Human Behavior in Organizations – Nature & Scope, Personality: Major traits & types, Johari Window, Perception: Process & factors, Attitude – overview & workplace implications, Learning in organizations – key theories & applications, Concept and Theories of Motivation

UNIT IV GROUP BEHAVIOUR

9 hours

Groups-Types & formation of groups, group norms, cohesiveness, effectiveness. Conflict: Types & basic resolution methods (brief on Transactional Analysis), Leadership: Overview of styles & major theories – Likert's System Theory, Managerial Grid. Women in Leadership-Indian context

UNIT V ORGANIZATIONAL BEHAVIOUR & WORKPLACE WELL-BEING

9 hours

Stress Management: Sources, consequences, coping strategies, Work-Life Balance (overview & best practices). Organizational Culture: Concept, types, sustaining culture, Organizational Climate vs Culture – differences & significance.

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Course Outcomes:

- CO1: Understand management concepts, styles, roles, and ethics.
- CO2: Apply managerial functions in real business situations.
- CO3: Analyse individual behaviour and motivation in organizations.
- CO4: Evaluate group dynamics and leadership approaches.
- CO5: Assess workplace well-being, stress, and organizational culture.

Text Books:

1. Harold Koontz, Heinz Weihrich, Mark V. Cannice, (2020), Essentials of Management McGraw Hill Education (India) Private Limited
2. Stephen P. Robbins, Mary Coulter, Agna Fernandez, (2018) Management, Pearson Education

Reference Books:

1. John W. Newstrom, Organizational Behaviour: Human Behaviour at Work, , Tata McGraw Hill, 2017
2. Jerald Green Berg & Robert A. Baron(2010) Behavior in Organizations, , Pearson Education,
3. Subbarao P(2017) Management and Organizational Behaviour, Himalaya Publishing House

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year I Semester

25MCMBATC02 BUSINESS AND REGULATORY ENVIRONMENT

L	T	P	C
3	0	0	3

Pre-requisite: None

Course Description:

This course provides a foundational understanding of the external environment and legal framework impacting business operations in India. It explores key economic policies, regulatory institutions, and analytical tools like PESTEL and SWOT. The legal segment covers essential business laws including contract law, partnership, agency, and major commercial legislations. The course aims to equip students with the skills to make informed and legally compliant business decisions in a dynamic economic landscape

Course Objectives

1. To understand the components and significance of the business environment
2. To gain knowledge of India's key economic policies and reforms
3. To understand the essentials of valid business contracts
4. To learn the legal principles governing agency and partnerships
5. To become familiar with important business legislations

UNIT I INTRODUCTION TO BUSINESS ENVIRONMENT

9 hours

Definition, Scope and Significance of Business Environment - Components of Business Environment - Environmental analysis: Need and importance – Techniques of environmental analysis: PESTEL analysis – SWOT analysis.

UNIT II POLICIES RELATED TO ENVIRONMENT

9 hours

Economic Environment of Business – Introduction to economic systems – Indian Economy – Basic Characteristics of Indian Economy; Economic Planning – Objectives & Strategies of Economic Planning. NITI AYOJ, GST, Industrial Policy Resolutions – 1948, 1956, 1991 (NIP) and FEMA. - Monetary Policy – Fiscal Policy

UNIT III LAW OF CONTRACT

9 hours

Indian contract Act, 1872: Contract Element of valid contract: Offer and Acceptance, Consideration Capacity to contract, Free consent, Coercion, undue influence, Misrepresentation, fraud, Legality of the object - classification of contract-performance of contract - Discharge of contract – breach of contract Quasi contract .

UNIT IV AGENCY AND PARTNERSHIP

9 hours

Law of Agency: Essentials, kinds of agents, Rights and Duties of Agent and Principal, Creation of Agency, Termination of Agency. Law of Partnership 1932: Definition, Essentials of Partnership, Formation of Partnerships, Kinds of Partners, Authorities, Rights and Liabilities of Partners, Registration of Partnership, Dissolution of Partnership Firm

UNIT V BUSINESS LAWS IN INDIA

9 hours

Sale of goods Act, 1930 – Negotiable Instruments Act, 1881- Limited liability partnership (LLP) act, 2008 - Consumer Protection Act, 2019-Competition Act, 2002 – Companies Act, 2013 – Information Technology Act, 2000.

Course Outcomes:

At the end of this course students will demonstrate the ability to

- CO1:** Understand the scope, significance, and components of the business environment and apply environmental analysis techniques like PESTEL and SWOT.
- CO2:** Analyse economic policies and reforms in India, including planning strategies, fiscal and monetary policies, GST, FEMA, and industrial policies.
- CO3:** Interpret the fundamental principles of the Indian Contract Act and evaluate various forms and consequences of contract breach.
- CO4:** Explain the legal framework governing agency and partnership, including the rights, duties, and liabilities of agents and partners.
- CO5:** Identify and apply key provisions from essential business legislations like the Sale of Goods Act, Consumer Protection Act, Companies Act, and Competition Act.

Text Books:

1. Kapoor, N. D. (2023). *Elements of Mercantile Law* (30th ed.). New Delhi: Sultan Chand & Sons.
2. Pathak, A. (2020). *Legal Aspects of Business* (7th ed.). New Delhi: Tata McGraw Hill Education.
3. Paul, J. (2021). *Business Environment: Text and Cases* (4th ed.). New Delhi: McGraw Hill Education.
4. Fernando, A. C. (2020). *Business Environment* (2nd ed.). New Delhi: Pearson Education India.
5. Tulsian, P. C., & Tulsian, B. (2022). *Business Law* (3rd ed.). New Delhi: Tata McGraw Hill Education
6. Cherunilam, Francis (2021): *Business Environment*, Himalaya Publishing House

Reference Books:

1. Tulsian, P. C. (2022). *Business Law*. Tata McGraw Hill.
2. Fernando, A. C. (2020). *Business Environment*. Pearson Education.
3. Ghosh, P. K. & Kapoor, G. K. (2021). *Business and Corporate Laws*. New Age International Publishers.

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year I Semester

25MCMBATC03 CORPORATE ECONOMICS AND DECISION MAKING

L T P C
3 0 0 3

Pre-requisite: None

Course Description:

Managerial Economics applies economic principles to business decisions, covering demand and supply analysis, cost and production functions, market structures with pricing strategies, optimization techniques, elasticity, forecasting, and break-even analysis. It also reviews key economic indicators such as Inflation, and the Consumer Price Index to guide managerial choices

Course Objectives:

1. To enable students to apply economic concepts and optimization tools in business decision-making.
2. To analyze demand and supply theories and forecast demand using various techniques.
3. To examine production and cost concepts for optimal decision-making
4. To understand the knowledge of various competitive markets and pricing practices.
5. To analyze National economic indicators

UNIT I INTRODUCTION TO MANAGERIAL ECONOMICS

9 hours

Economics: Nature, Scope, and Significance - Relationship with Other Areas: Production Management, Marketing, Finance, and Personnel - Role of Managerial Economist in the Modern Business World - Objectives of the Firm and introduction to Optimization Techniques - Economic Principles: Opportunity Cost, Incremental Concept, Scarcity, Marginalism, Equi-Marginalism, Time Perspective, Discounting Principle, Risk, and Uncertainty

UNIT II THEORY OF DEMAND AND SUPPLY

9 hours

Demand Analysis: Significance, Determinants, Demand Functions, Law of Demand, Exceptions to the Law of Demand, Elasticity of Demand (Types) - Demand Forecasting: Need and Techniques – Supply Analysis: Supply Function, Law of Supply, Elasticity of Supply.

UNIT III COST AND PRODUCTION ANALYSIS

9 hours

Cost concepts and Cost-Output Relationship, Economies of Scale and Scope, Production Function - Short-and long run production functions, Isoquant types & Properties, Laws of returns to scale, ISO-Cost line, least cost combination factor and Cobb-Douglas Production Function.

UNIT IV MARKET STRUCTURE AND PRICING PRACTICES

9 hours

Competitive Situations: Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly (Short Run and Long Run) - Pricing Methods: Cost-Based, Demand-Based, Competition-Based, Other Pricing, Methods - Break-Even Analysis: Meaning, Assumptions, Determination, Limitations, Uses in Managerial Decisions (Simple Problems)

UNIT V ECONOMIC INDICATORS

9 hours

National Income: Concepts and various methods of its measurement – Gross Domestic Product, Gross National Income, Gross National Product, Per Capita Income, Consumer Price Index and Inflation– Meaning, Definition, Significance and Types.

Course Outcomes:

CO1: Understand and apply economic concepts for optimal resource utilization in business.

CO2: Determine demand and supply elasticity and utilize forecasting techniques in decision-making

CO3: To assess the cost concepts in relationship with optimal production levels.

CO4: Analyze various market structures and adopt appropriate pricing methods.

CO5: Assess the effects of economic indicators on business operations.

Text Books:

1. Ivan k Cohen (2015); Economics for Business: A guide to decision making in a complex global macro economy; Kogan Page Ltd; 1st edition
Mehta, P.L(2013); Managerial Economics Analysis, Problems and Cases;: S. Chand & Co Publisher
2. Hirschey, Mark (2009), “Fundamentals of Managerial Economics”, 9th edition, Cengage Learning.
3. Suma Damodaran(2010); “Managerial Economics”, Oxford University Press.2nd Edition
4. G.S. Gupta,(2017) “Managerial Economics”, Tata McGraw-Hill.2nd Edition

Reference Books:

1. DN Dwivedi, Managerial Economics, Vikas, New Delhi
2. Dean,Joel: Managerial Economics, PHI., New Delhi
3. Trivedi M.L: Managerial Economics, Theory and Applications, Tata McGraw-Hill.2nd Edition
4. Mark Hirschey(2010), Managerial Economics: An Integrative Approach, Cengage Learning New Edition

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year I Semester

25MCMBATC04 FINANCIAL ACCOUNTING AND ANALYSIS

L	T	P	C
3	1	0	4

Pre-requisite: None

Course Description:

This course will acquaint the students with the language of accounting and develop the ability to read, analyze, interpret, and use accounting data as an aid to decision making. Emphasis is laid on analysis and utilization of financial and accounting data for planning, controlling, problem solving and decision making in the financial area

Course Objectives:

1. To familiarize the concepts, principles, and role of accounting in business
2. To enable the students to prepare financial statements
3. To elucidate the process of financial statement analysis
4. To provide students with the knowledge of various types of cost and cost -volume –profit analysis.
5. To develop an insight in computerized accounting

UNIT I INTRODUCTION TO FINANCIAL ACCOUNTING

12 hours

Nature and Scope of Accounting – Need for Accounting – Definition, Functions and Branches of Accounting - Accounting concepts & conventions - Uses and users of accounting information - Generally Accepted Accounting Principles – Accounting Standards [Issued by ICAI] – IGAAP, IFRS The role of Accounting in global business environment. The Accounting Process: Brief overview of Accounting Cycle - Recording of business transaction, classification of accounts, the double entry system, journal, Ledger, subsidiary books and trail balance.

UNIT II PREPARATION OF FINAL ACCOUNTS

12 hours

Classification of capital and revenue expenses - Final Accounts of Joint Stock Companies – contents, and preparation of Trading and Profit and Loss Account, Profit and Loss Appropriation Account and Balance sheet with adjustments as per Schedule III of the Companies Act, 2013, Provisions for Statutory Audit. (horizontal and vertical form)

UNIT III FINANCIAL STATEMENT ANALYSIS

12 hours

Financial Statement Analysis- Objectives - Need – Importance -tools and techniques - Funds flow statement Cash Flow Statement – Ratio Analysis – Meaning, Need, Advantages and Limitations of Ratio Analysis, Classification of Ratios

UNIT IV COST-VOLUME-PROFIT ANALYSIS

12 hours

Cost, Costing, Cost Control, and Cost Reduction; Elements of Cost, Components of total Cost, Cost Sheet– Absorption costing and Marginal Costing - Cost-Volume-Profit Analysis: Contribution, Profit-Volume Ratio, Margin of safety, Cost Breakeven Point, Composite Break-even Point, Cash Break- even Point, Key Factor, Break-even Analysis. Relevant Costs and Decision Making

UNIT V COMPUTERISED ACCOUNTING SYSTEM

12 hours

Need and Requirements of Computerized Accounting – Features, Merits and Demerits of Computerized Accounting – Process of Computerized Accounting – Differences between Manual Accounting System and Computerized Accounting System - Components of Computerized Accounting system – Computerized Accounting Package – Tally – Features of Tally – Recording of Business Transactions through Tally.

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Course Outcomes:

At the end of this course students will demonstrate the ability to

CO1: Understand the fundamentals of financial accounting, the principles and concepts underlying them.

CO2: Construct the financial statements viz., the Income Statement and Balance Sheet

CO3: Present financial statements Analysis

CO4: Exploit the cost -Volume-Profit analysis in business decision making

CO5: Learn the computerized process of accounting

Text Books:

1. Narayanaswamy, R(2023),. Financial accounting - A management perspective, 7th edition, Tata McGraw-Hill.2nd Edition.
2. P C Tulsian, Bharat Tulsian, (2023); Financial Accounting Tushar Tulsian Edition
3. Maheshwari S.N. & Maheshwari S.K(2024)., “An Introduction to Accountancy”, 14th Edition, Vikas Publishing House.

Reference Books:

1. S. P. Jain and K. L. Narang(2024); Financial Accounting, Kalyani Publishers.
2. Ashish K. Bhattacharya(2022); “Essentials of Financial Accounting”, 6th Edition, , PHI, New Delhi.
3. Gupta R. L & Radhaswamy M(202); “Advanced Accountancy”, 13th Edition, 2, Sultan Chand Publications

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year I Semester

25MCMBATC05 ENTREPRENEURSHIP AND DESIGN THINKING

L	T	P	C
2	0	0	2

Pre-requisite: None

Course Description:

Entrepreneurship and Design Thinking is a dynamic course that blends creative problem-solving with strategic business development. It introduces students to the principles of design thinking—empathy, ideation, prototyping, and testing—while cultivating an entrepreneurial mindset geared toward innovation and impact. Through hands-on projects, Case Studies, and Collaborative Exercises, Learners explore how to identify real-world challenges, generate user-centered solutions, and transform ideas into viable ventures. This course empowers aspiring entrepreneurs, designers, and change makers to think boldly, act iteratively, and build with purpose in today's fast-evolving world

Course Objectives:

1. Explain the core concepts, traits, and roles of entrepreneurs in economic development
2. Develop a comprehensive business plan integrating ethical and sustainable practices
3. Analyze various business models and evaluate funding options for venture growth
4. Apply design thinking principles to identify user-centric problems and opportunities
5. Construct innovative entrepreneurial solutions using iterative design thinking tools

UNIT I INTRODUCTION TO ENTREPRENEURSHIP

6 hours

Introduction to entrepreneurship: Definition, significance, features and motivation theories for entrepreneurs and key concepts. Historical perspectives and success stories in entrepreneurship -Role of science and technology in driving innovation and economic development: **Opportunity Identification and Evaluation** Evaluating market potential, customer needs, and competitive landscape -Techniques for assessing feasibility and viability of business ventures

UNIT II BUSINESS DEVELOPMENT PLAN AND ETHICAL ENTREPRENEURSHIP

6 hours

Crafting a Comprehensive Business Plan, Components of a Business Plan: Executive Summary, Market Analysis, Financial Projections, Operational Plan, Structuring and Formatting: Professional layout and documentation standards-Team Composition and Dynamics: Roles in start-ups (founders, advisors early hires), Psychological safety and trust-building, Hiring and Retention: Recruitment strategies for early-stage ventures, Incentivization: equity, benefits, and growth paths, Culture Creation: Innovation, collaboration, and learning, Preserving culture during scaling and transitions Ethical Entrepreneurship and Responsible Innovation, Ethical Considerations: Privacy, data security, and social impact, Stakeholder responsibility and transparency, Responsible Innovation: Environmental sustainability, Inclusivity and ethical design principles, Case Studies: Real-world dilemmas and decision-making frameworks.

UNIT III BUSINESS MODELS, FUNDING AND INVESTMENT STRATEGIES

6 hours

Understanding different types of business models and revenue streams - developing innovative business models -Lean start-ups methodology and iterative approach to business model refinement. **Market Analysis and Validation**-Techniques for conducting market research and Analysis-Customer segmentation, persona development, and value proposition Design-Lean experimentation and MVP (Minimum Viable Product) testing for market validation. **Funding and Investment Strategies**-Overview of funding options for ventures: Grants, equity financing, debt financing Pitching to investors: Crafting a pitch deck and delivering an effective pitch presentation-Due diligence process and negotiation strategies in securing investment

UNIT IV INTRODUCTION TO DESIGN THINKING

6 hours

Evolution and Critical Perspectives of Design Thinking - Open-mindedness; Developing Design Thinking Mindset; Principles of Design Thinking; Primer on Design Thinking; Advanced Standards and IDEO. Definition and Components of Empathy; Steps in Empathy process; Assessment tools; Roots of Empathy (Case studies) Innovation Creativity, Divergent and Convergent Thinking Models, Ideation Techniques - Role-play; Brainstorming; Analyzing; Synthesizing and integrating the ideas. Mind-mapping the experiences, Flaring & Focus; Impact of Visuals; Exploring resources, Timeline. and Competitive uniqueness; Building artifacts; Real time evaluation; Bringing idea to the life. Testing and feedback

UNIT V DESIGN THINKING APPLICATIONS IN ENTREPRENEURSHIP

6 hours

Design Thinking Mind-set for Entrepreneurs, Embracing ambiguity and failure, Bias toward action and experimentation, Reframing problems as opportunities, Empathy and User-Centric Discovery, Techniques: interviews, observation, immersion, Empathy maps and persona development, Identifying unmet needs and pain points, Opportunity Identification through Design Thinking, Problem-solution fit, Mapping stakeholder journeys, Defining a compelling problem statement, Case Studies and Applications, Real-world examples of start-ups using design thinking, Social entrepreneurship and inclusive innovation- Lessons from Creative Business Legends: CEOs of Alibaba, Facebook, Apple, Microsoft, Space-X etc.

Course Outcomes:

At the end of this course students will demonstrate the ability to

- CO1:** Demonstrate understanding of entrepreneurial traits, functions, and their impact on economic systems.
- CO2:** Design and present a viable business plan incorporating ethical values and sustainability principles.
- CO3:** Critically assess business models and appraise funding mechanisms for entrepreneurial ventures
- CO4:** Employ design thinking techniques to discover and define user-driven entrepreneurial challenges.
- CO5:** Generate and refine innovative solutions through iterative prototyping and feedback loops.

Text Books:

1. Tim Mazzarol & Sophie Roboud, (2019), Entrepreneurship and Innovation: Theory, Practice and Context, Springer Publications, USA
2. Hisrich, Peters, Shepherd, (2016), Entrepreneurship, 10th edition. McGraw Hill.
3. Tim Brown, (2009), Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, Harper Business.
4. Roger L. Martin, (2009), The Design of Business: Why Design Thinking is the Next Competitive Advantage, Harvard Business Review Press; Third Edition.
5. Stanford University's Hasso Plattner Institute of Design(2018) "Design Thinking-A Practical Approach" proprietary material-2018, Stanford Tool Kit

Reference Books:

1. Kuratko, Hodgetts, (2014), Entrepreneurship - Theory, Process and Practice, 10th edition. Cengage Learning
2. Eric Ries, (2011), The Lean Start-Up, Penguin Publishers, UK
3. “Action Research” by Eileen Ferrance, “Themes in Education” Northeast and Islands Regional Educational Laboratory Brown University.

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year I Semester

25MCMBATC06 HUMAN CAPITAL MANAGEMENT

L	T	P	C
3	0	0	3

Pre-requisite: None

Course Description:

Human Capital Management examines strategic and operational approaches to managing people as assets. Integrating HR, psychology, and leadership, it explores talent acquisition, development, retention, and optimization. Students engage with frameworks like analytics, engagement, and performance systems, emphasizing HCM's role in digital transformation, sustainability, and inclusive organizational growth.

Course Objectives:

1. To understand the HR Management's evolution from the 18th century
2. To explore HR functions—planning, recruitment, selection, training, appraisal, compensation, welfare
3. To examine objectives and factors of Human Resource Planning and evaluate its integration with other personnel functions
4. To explore the methodologies for job analysis, job description, and job specification
5. To evaluate training, compensation, and employee practices in Indian industry

UNIT I HUMAN RESOURCE MANAGEMENT

9 hours

Human Resource Management: Introduction, meaning, nature, scope of HRM - Importance and Evolution of the concept of HRM Historical Perspectives of HRM, Emergence of Modern Industrial Labour and Improvement, Different Eras of HRM, History of Modern HRM, Stages for the Growth of HR, 18th Century to the Modern Times, Industrial Revolution Era - Major functions of HRM - Principles of HRM.

UNIT II HUMAN RESOURCE PLANNING

9 hours

Human Resource Planning: Objectives, Importance and process of Human Resource Planning, Effective HRP, Factors Affecting HRP, External Factors, Internal Factors, Different Levels of HRP, Prerequisites of HRP, HRP – Relationship with other Personnel Processes, Human Resource Planning Process, Essentials for Effective HRP, Advantages of HRP, Disadvantages of HRP

UNIT III JOB ANALYSIS, RECRUITMENT, SELECTION, PLACEMENT

9 hours

Job Analysis: Meaning, process of Job Analysis, methods of collecting job analysis data, Job Description, Definitions of Job Description, Contents of Job Description, Stages of Job Description, Typical Sections of Job Description, Advantages of Job Description, Disadvantages of Job Description and Job Specification, Importance of Job Specification, Components of Job Specification. Job Specification, Advantages of Job Specification, Disadvantages of Job Specification, Difference Between Job Description and Job Specification and Role Analysis.

Recruitment: Definition, Constraints and Challenges, Sources and Methods of Recruitment, New Approaches to recruitment.

Selection: Definition and Process of Selection.

Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and Employee Separation.

UNIT IV TRAINING AND DEVELOPMENT, PERFORMANCE APPRAISAL AND COMPENSATION 9 hours

Training and development: Training v/s development, Training v/s Education, Systematic Approach to Training, Training Methods.

Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal Process, Methods of Performance Appraisal

Compensation: Objectives of Compensation Planning, Job Evaluation, Compensation Pay Structure in India.

UNIT V EMPLOYEE WELFARE, EMPLOYEE GRIEVANCES AND DISCIPLINE 9 hours

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions.

Employee Grievances: Employee Grievance procedure, Grievances Management in Indian Industry.

Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees.

Course Outcomes:

At the end of this course students will demonstrate the ability to

CO1: Learners will explain HRM's evolution from industrial origins to strategic roles

CO2: Learners will analyze the objectives, processes, and influencing factors of HRP, and integrate HRP with other personnel processes for effective workforce management

CO3: Learners will perform job analysis using appropriate methods

CO4: Learners will develop training modules using systematic approaches

CO5: Learners will assess welfare, grievances, and discipline in Indian industry

Text Books:

- 1 Human Resource Management: Concepts authored by Amitabha Sengupta by Sage Publication India Pvt. Ltd. 2019 edition.
- 2 Pravin Durai; Human Resource Management, Pearson books, Copyright © 2012 Dorling Kindersley (India) Pvt. Ltd
- 3 Human Resource Management: Theory and Practices authored by R. C. Sharma, Nipun Sharma by Sage Publication India Pvt. Ltd., 2019 edition.
- 4 Leadership: Theory and Practices authored by Peter G. Northouse by Sage Publication, 2016 edition.
- 5 Human Resources Management authored by T.P Renuka Murthy by HPH, 2015 edition. 03092024
- 6 The HR Scorecard: Linking People, Strategy, and Performance by Brian Becker, Dave Ulrich, and Mark A. Huselid by Harvard Business School Press, 2001 edition.
- 7 The HR Answer Book: An Indispensable Guide for Managers and Human Resources Professionals by Shawn Smith and Rebecca Mazin by AMACOM publishers, 2011 edition.
- 8 Performance Management and Appraisal Systems HR Tools for Global Competitiveness by T. V. Rao, First edition 2004.
- 9 Human Resource Management by Appasaba L.V and Kadakol A M by College Book House, 2016 edition.
- 10 Human Resource Management-Text & Cases, by Rao, V.S.P, Publisher: Excel Books, New Delhi.
- 11 Robert S. Kaplan, David P. Norton, Alignment: Using the Balanced Scorecard to Create Corporate Synergies, Boston (2006)

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

M.B.A. I Year I Semester

25MCMBATC07 STATISTICAL ANALYSIS FOR BUSINESS

L	T	P	C
2	0	2	3

Pre-requisite: None

Course Description: “Statistical Analysis for Business” provides a practical and comprehensive introduction to statistical analysis in business contexts. It teaches how to use SPSS software to manage data, perform descriptive and inferential statistics, visualize findings with charts and graphs, and conduct various analyses like hypothesis testing, correlation, and regression. The course is structured to build confidence in handling real business data, drawing meaningful insights, and supporting data-driven decision-making.

Course Objectives:

1. To understand fundamental concepts and principles of statistical analysis in business contexts.
2. To learn various statistical methods including probability concepts, distributions, and their applications in business decision-making.
3. To grasp the principles of statistical inference and hypothesis testing for business research.
4. To develop analytical skills in correlation, regression, and their interpretation in real-world business data.
5. To comprehend multivariate analysis techniques such as ANOVA, reliability testing, and factor analysis for complex business problems.

UNIT I INTRODUCTION TO BUSINESS STATISTICS AND DATA HANDLING 12 hours

Basic Statistical Concepts relevant to business, Data Measurement, Visualizing Data with Charts and Graphs: Frequency Distributions, Quantitative Data Graphs, Qualitative Data Graphs, Introduction to SPSS: Interface, Data View, Variable View, Descriptive Statistics: Measures of Central Tendency (Mean, Median, Mode), Measures of Dispersion (Range, Variance, Standard Deviation, CV)

Experiments

1. Data Entry & Descriptive Statistics in SPSS
2. Graphical Data Presentation in SPSS

UNIT II PROBABILITY CONCEPTS AND PROBABILITY DISTRIBUTIONS 12 hours

Introduction to Probability, Structure of Probability, Marginal, Union, Joint, and Conditional Probabilities, Additional Laws, Multiplication Laws, Conditional Probability, Random Variables: Discrete vs. Continuous, Discrete Distributions: Binomial, Poisson, Continuous Distributions: Normal Distribution & Application.

Experiments

1. Binomial Distribution Using SPSS
2. Poisson Distribution Using SPSS

UNIT III STATISTICAL INFERENCE AND HYPOTHESIS TESTING 12 hours

Sampling Methods and Sampling Distributions, Central Limit Theorem & Practical Implications, Point & Interval Estimation, Hypothesis Testing Process & Types of Errors, t-tests (One-sample, Independent, Paired), Chi-square Test for Independence & Goodness of Fit.

Experiments:

1. Chi-Square Test for Goodness of Fit
2. Chi-Square Test for Independence of Attributes
3. t-Test for Single Mean
4. t-Test for Difference of Means
5. Paired t-Test

UNIT IV CORRELATION AND REGRESSION ANALYSIS

12 hours

Understanding and Interpreting Correlation (Pearson, Spearman), Scatterplots and Relationship Patterns, Simple Linear Regression: Model Building and Coefficients Interpretation, Multiple Regression: Basics and Applications in Business.

Experiments:

1. Correlation Analysis in SPSS
2. Simple Regression and Multiple Regression in SPSS.

UNIT V ANOVA, RELIABILITY TESTING, AND FACTOR-BASED ANALYSIS

12 hours

Introduction to ANOVA, ANOVA-One-Way Classification, ANOVA-Two- Way Classification and Factor Analysis.

Experiments:

1. ANOVA-One-Way Classification
2. ANOVA-Two-Way Classification
3. Factor Analysis

Course Outcomes:

CO1: Explain and apply key statistical concepts including data measurement, descriptive statistics, and data visualization relevant to business. Understand and apply basic probability concepts and distributions, including binomial, Poisson, and normal distributions

CO2: Understand and utilize probability theories and probability distributions for decision-making under uncertainty.

CO3: Conduct and interpret hypothesis testing, including t-tests and chi-square tests, to draw conclusions from sample data.

CO4: Analyze relationships between variables using correlation and regression techniques and interpret their significance in business contexts.

CO5: Conduct multivariate analysis using SPSS, including ANOVA, reliability analysis, and factor analysis

Text Books:

1. Pallant, J. (2020). SPSS Survival Manual: A Step-by-Step Guide to Data Analysis using IBM SPSS (7th ed.). Routledge.
2. Levin, R. I., & Rubin, D. S. (2017). Statistics for Management (8th ed.). Pearson Education
3. Digital Design, 6th Edition, M. Morris Mano, Pearson Education.

Reference Books:

1. Field, A. (2017). Discovering Statistics Using IBM SPSS Statistics (5th ed.). SAGE Publications Ltd.
2. George, D., & Mallery, P. (2019). IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference (16th ed.). Routledge.
3. Aczel, A. D., & Sounderpandian, J. (2009). Complete Business Statistics (7th ed.). McGraw-Hill Education.

Mode of Evaluation: Assignments, Mid Term Tests, Continuous Internal Evaluation (Record) and End Semester Examination.

MBA I Year I Semester

Skill Enhancement Course - I

25MCMBASC01 DATA ANALYTICS USING EXCEL AND GS

L	T	P	C
1	0	2	2

Pre-requisite: None

Course Description:

This course equips students with essential and advanced Microsoft Excel skills for data analytics. It covers workbook management, shortcut keys, formulas, functions, data visualization, and statistical analysis using the Analysis Tool Pak, enabling learners to efficiently organize, analyze, and present data for informed decision-making.

Course Objectives:

The main objectives of the course are to

1. Explain the basic interface, features, and functionalities of MS Excel for data entry and formatting.
2. Apply commonly used shortcut keys to enhance productivity and navigate Excel efficiently.
3. Analyze spreadsheet requirements to implement basic formulas and built-in functions for data computation.
4. Evaluate complex formula structures and nested functions to solve business-related analytical problems.
5. Design dynamic spreadsheets using advanced Excel tools such as data validation, and conditional formatting for decision support.

UNIT I GETTING STARTED WITH EXCEL

9 hours

Workbook and Worksheets, Navigation with Keyboard, Tabs and Ribbons, Quick Access Toolbar, Excel Options, Create a New Workbook, Print and Save, Understanding Worksheet Basics, Protecting Excel Workbook and Worksheet, importing data into excel, Sharing in Excel.

EXPERIMENTS:

1. Create & Protect Workbook
2. Import & Share Data

UNIT II PERFORM FUNCTIONS WITH SHORTCUT KEYS

9 hours

Keys for Menus-Move on a worksheet or Workbook-Select Cells, Columns, Rows or Objects-Select Cells with Special Characteristics, Format Data, filling data in cells, Working on Tables. Excel Data Types.

EXPERIMENTS:

1. Shortcut Keys & Special Selection
2. Create & Format an Excel Table

UNIT III FORMULAS AND FUNCTIONS-1

9 hours

Understanding Formulas, Operators in Formula, Defined Names, Calculations, Functions in Formula, Relative and Absolute addressing, Referencing Cells Outside the Worksheet, Referencing Cells Outside the Workbook, Logical Functions- Using IF, Using nested IF, Writing conditional expressions: IF combined with AND/OR-Using IFS, Using SWITCH.Data Entry Shortcuts.

EXPERIMENTS:

1. Nested IF for Grading System
2. VLOOKUP

UNIT IV FORMULAS AND FUNCTIONS-2

9 hours

Summarizing Functions, Text functions, Lookup and Reference functions, Date and time functions, Math Functions, Financial Functions, Error Handling Functions, Formula Auditing, Data Visualization with

New chart types- Waterfall charts, Histogram, Pareto Chart, Sparkline chart, Gantt and Milestone Chart, Putting Data in perspective with Pivots.

EXPERIMENTS:

1. **Pivot Table Analysis**
2. **Data Visualization with New Chart Types**

UNIT V MS-EXCEL ADVANCED

9 hours

Statistical Functions- Frequency, MEDIAN, MODE.SNGL, MODE.MULT, STDEV.P(/.S), VAR.P(/.S), CORREL, COVARIANCE.P(/.S), Complex Data Analysis using Tool Pack-Enabling Analysis Tool Pak in Excel, Descriptive Statistics in Excel, ANOVA in Excel-ANOVA: Single factor, t-Test following ANOVA.

EXPERIMENTS:

1. **Descriptive Statistics using Analysis Tool Pack**
2. **ANOVA: Single Factor**

Course Outcomes:

Upon successful completion of the course, students will be able to

- CO1: Describe the basic interface, features, and functions of MS Excel for data entry, formatting, and navigation.
- CO2: Use shortcut keys and built-in functions to perform routine spreadsheet operations efficiently.
- CO3: Analyze business data using formulas and logical functions to derive meaningful insights.
- CO4: Evaluate spreadsheet models using advanced functions such as lookup, conditional logic, and error handling to solve business problems.
- CO5: Design dynamic and interactive spreadsheets using advanced Excel tools like charts, and data validation for decision support.

Text Books:

1. **Winston, Wayne L**(2019); *Microsoft Excel Data Analysis and Business Modeling* (5th Edition), Microsoft Press,
2. **Frye, Curtis D** (2022) *Microsoft Excel 365 Step by Step*, Microsoft Press,
3. **Jelen, Bill & Alexander, Michael** (2021); *Excel 2021 Bible*, Wiley Publications

Reference Books:

1. **Walkenbach, John** (2018); *Excel 2019 Power Programming with VBA*, Wiley Publications
2. **Collie, Rob & Singh, Avichal** (2016.); *Power Pivot and Power BI: The Excel User's Guide to DAX, Power Query, Power BI & Power Pivot in Excel 2010–2016*, Holy Macro! Books,
3. **Proctor, Bernard L.**(2021); *Data Analysis with Microsoft Excel: Updated for Office 365*, Cengage Learning, 2021.
4. **Alexander, Michael**(2022); *Excel Dashboards and Reports*, Wiley,

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

MBA I Year II Semester

25MCMBATC08 FINANCE FOR BUSINESS LEADERS

L T P C
3 0 0 3

Pre-requisite: None

Course Description: This course introduces the fundamental principles and practices of corporate financial management. It focuses on the primary goal of wealth maximization and the three core decisions of finance—investment (capital budgeting), financing (capital structure and cost of capital), and dividend policy. The course also covers the effective management of short-term working capital within the context of the Indian economic environment.

Course Objectives:

1. To establish the conceptual framework of financial management, its primary goals, and the application of the Time Value of Money.
2. To impart a working knowledge of the capital budgeting process, from cash flow estimation to project evaluation and risk analysis.
3. To analyze the role of leverage and apply capital structure theories to determine a firm's optimal financing mix.
4. To develop the skills to measure a firm's cost of capital (WACC) and to evaluate various dividend policy theories.
5. To provide a conceptual and analytical framework for the effective management of working capital

UNIT I INTRODUCTION TO FINANCIAL MANAGEMENT

9 hours

Meaning, nature, and scope of financial management - Evolution of the finance function and its contemporary role – The goal of the firm: the debate on Profit vs. Wealth vs. Welfare maximization; The Risk-Return trade off - The Time Value of Money (TVM): compounding, discounting, annuities and perpetuities (Simple Problems) - The core finance functions: the investment, financing, and dividend decisions – The agency problem, agency costs, and the debate on maximizing vs satisfying behavior.

UNIT II CAPITAL BUDGETING

9 hours

The Capital Budgeting Process and its significance - Estimation of Relevant Cash Flows - Capital Budgeting Techniques: Payback, Accounting Rate of Return, NPV, IRR, and PI (Problems); The NPV vs. IRR debate - Risk Analysis in Capital Budgeting: Sensitivity Analysis, Scenario Analysis, Risk-Adjusted Discount Rate (RADR) method, and Decision Tree Analysis

UNIT III CAPITAL STRUCTURE

9 hours

Operating and Financial Leverage – Measurement of Leverages – Effects of Operating and Financial Leverage on Profit – Combined Financial and Operating Leverage (Problems) – Capital Structure Theories: Traditional approach, M.M. Hypotheses – without Taxes and with Taxes, Net Income Approach (NI), Net Operating Income Approach (NOI) – EBIT-EPS Analysis (Problems) - Factors determining capital structure.

UNIT IV COST OF CAPITAL AND DIVIDEND DECISION

9 hours

Meaning and significance of cost of capital: Calculation of cost of debt, preference capital, equity capital and retained earnings; Combined cost of capital (WACC) based on Historical and Market weights (Problems) - Dividend Decisions: Dividend Policy and its types-Theories of dividend- Gordon model, Walter model, MM model- Forms of dividend.

UNIT V WORKING CAPITAL MANAGEMENT

9 hours

Definition and Objectives – Sources of Working Capital, Working Capital Policies– Factors affecting Working Capital requirements-Calculating Operating Cycle Period and Estimation of Working Capital Requirements (Problems) –Management of Cash: Preparation of Cash Budget; Cash management technique (Lock box, concentration banking), Receivables Management –Credit Policy, Cash Discount, Debtors Outstanding and Ageing Analysis; Inventory Management (Very Briefly) – ABC Analysis; Minimum Level; Maximum Level; Reorder Level; Safety Stock; EOQ (Basic Model).

Course Outcomes:

At the end of this course students will demonstrate the ability to

CO1: Practically understand the core principles of financial management, including the goal of wealth maximization and the Time Value of Money.

CO2: Develop the skill of evaluating capital investment projects using techniques like NPV, IRR, and risk analysis.

CO3: Develop the skill to analyze the impact of leverage and construct alternate capital structure plans for a firm.

CO4: Practically understand how to measure a firm's Cost of Capital (WACC) and analyze the impact of Dividend Decisions on value.

CO5: Develop a conceptual and analytical framework for managing a firm's working capital.

Text Books:

1. Ehrhardt & Brigham(2017) Financial Management: Theory and Practices, 15th Edition, Cengage.
2. Pandey, I.M(2015) Financial Management, 11th Edition, Vikas Publishing House, New Delhi.
3. Prasanna Chandra(2022), Financial Management: Theory & Practice, 11th Edition, McGraw Hill

Reference Books:

1. Keown, Arthur J., Martin, John D., Petty, J. William and Scott, David F(2004), Financial Management, Pearson Education
2. Van Horne, James C(2001); Financial Management and Policy, Prentice Hall of India
3. Brigham & Houston(2019), Fundamentals of Financial Management, Thomson Learning, Bombay. Kishore, R., Financial Management, Taxman's Publishing House.

Online Learning Resources

1. <https://nptel.ac.in/courses/110107144>

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

25MCMBATC09 MARKETING STRATEGY AND PLANNING

L	T	P	C
3	0	0	3

Pre-requisite: None

Course Description:

Marketing Strategy & Planning covers the analysis, formulation, and implementation of marketing strategies. Topics include market analysis, STP, product and pricing strategies, distribution planning, and integrated marketing communications, with emphasis on creating actionable marketing plans in dynamic environments.

Course Objectives:

1. To understand the fundamentals of marketing, its strategic role, and the process of developing a marketing plan.
2. To design product strategies and manage brands through their life cycle to achieve competitive advantage.
3. To develop and adapt pricing strategies to meet organizational objectives under varying market conditions.
4. To formulate effective sales and distribution channel strategies aligned with the go-to-market approach.
5. To plan and implement integrated marketing communication strategies for targeted customer engagement.

UNIT I MARKETING FOUNDATIONS & STRATEGIC FRAMEWORK

9 hours

Introduction to Marketing: Nature, scope, and importance; core concepts; philosophies of marketing – Strategic Role of Marketing – Marketing Mix & Extended Ps in strategy formulation – Marketing Environment Analysis: India and global contexts; scanning tools (PESTEL, SWOT) – Market Segmentation, Targeting & Positioning (STP): Strategic basis for segmenting and selecting markets; positioning strategy and brand differentiation – Marketing Planning Process: Steps in developing a marketing plan (situation analysis, objectives, strategy, action programs, budgets, controls).

UNIT II PRODUCT STRATEGY & MANAGEMENT

9 hours

Product Strategy: Levels of product; product mix and portfolio strategy – Product Life Cycle (PLC) as a Strategic Tool: Linking PLC stages to marketing strategy – Product Line & Brand Strategy: Decisions on product lines, brand equity, and brand extension – New Product Development (NPD): Strategic NPD process – Product Differentiation & USP Development – Packaging & Labelling: Strategic role in positioning and customer perception.

UNIT III PRICING STRATEGY & PLANNING

9 hours

Strategic Objectives of Pricing – Pricing Methods & Models: Cost-based, value-based, competition-based (with simple problems) – Factors Influencing Pricing Decisions – Adapting Prices: Segmented, promotional, and geographical pricing – Price Changes: Initiating and responding strategically – Psychological & Dynamic Pricing – Legal & Ethical Issues in Pricing.

UNIT IV SALES, DISTRIBUTION & GO-TO-MARKET STRATEGY

9 hours

Channel Strategy: Functions, flows, and levels – Channel Management: Selection, motivation, and conflict management – Retailing & Wholesaling Trends – Sales Force Strategy: Objectives, structure, size, and compensation – Sales Force vs. Sales Agency Decisions – Go-to-Market Planning: Integrating channels, partners, and sales teams into overall strategy.

**UNIT V MARKETING COMMUNICATION STRATEGY & PLAN
IMPLEMENTATION**

9 hours

Integrated Marketing Communications (IMC): Role in delivering value – 5 M's of Advertising (Mission, Money, Message, Media, Measurement) – Communication Mix Planning: Advertising, sales promotion, PR, direct marketing, events, content marketing – Digital & Social Media Strategies – Socially Responsible & Internal Marketing – Rural Marketing Strategy – Implementation & Control: Tracking KPIs, feedback loops, and adaptive strategy.

Course Outcomes:

At the end of this course students will demonstrate the ability to

- CO1:** Explain the nature, scope, and strategic importance of marketing; apply environmental scanning and STP in planning.
- CO2:** Formulate product and brand strategies, including NPD and differentiation, for competitive positioning.
- CO3:** Develop pricing plans using appropriate methods and adapt prices strategically in response to market dynamics.
- CO4:** Design sales force and channel management strategies to optimize market coverage and efficiency.
- CO5:** Create integrated marketing communication plans, incorporating digital, rural, and socially responsible strategies.

Text Books:

- 1. Kotler, P., Keller, K. L., & Chernev, A. (2021). Marketing Management (16th ed.). Pearson
- 2. Saxena, R. (2019). Marketing Management (5th ed.). McGraw Hill Education.

Reference Books:

- 1. Kerin, Hartley, & Rudelius (2022). Marketing: The Core (9th ed.). McGraw Hill.
- 2. Lamb, Hair, & McDaniel (2020). Marketing (14th ed.). Cengage.
- 3. Ramaswamy, V. S., & Namakumari, S. (2018). Marketing Management (6th ed.). McGraw Hill.

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

25MCMBATC10 PRODUCTION AND OPERATIONS MANAGEMENT

L T P C
3 1 0 4

Pre-requisite: None

Course Description:

This course introduces the fundamentals of Production and Operations Management, emphasizing the nature, scope, and strategic role of operations in manufacturing and services. Topics include facility and process design, production planning and control, productivity improvement, maintenance systems, materials management, and quality assurance techniques. The course equips students with analytical tools and decision-making skills to enhance operational efficiency and competitiveness in organizations.

Course Objectives:

1. Understand the nature, scope, and evolution of Production and Operations Management and its role in organizations.
2. Analyze and design facilities, processes, and layouts for efficient operations.
3. Apply principles of production planning, scheduling, and control in different manufacturing systems.
4. Evaluate techniques of productivity improvement, work study, and maintenance management.
5. Integrate concepts of materials management and quality management to ensure operational excellence

UNIT I INTRODUCTION TO PRODUCTION AND OPERATIONS MANAGEMENT

12 hours

Nature, Scope, and Importance - Historical Evolution of Production and Operations - Types of Manufacturing Systems (Job, Batch, Mass, Continuous, Project) - Manufacturing vs. Service Operations - Role and Responsibilities of Production and Operations Manager – Decisions in Operations.

UNIT II FACILITIES AND PROCESS DESIGN

12 hours

Facility Location: Introduction, steps in location selection and factor affecting plant location decision, Multiple Location Theories and Layout Planning –Types of Layouts: Product, Process, Fixed position and combined layouts – Process Design: Manufacturing and Service Process Types- Material Handling: objectives, Principles and types – Product design process.

UNIT III PRODUCTION PLANNING AND CONTROL

12 hours

Production Planning and Control: Stages in PPC – Gantt chart – PPC in Mass, Batch, and Job Order Manufacturing, Lean Manufacturing -Aggregate Planning- Designing Product Layouts: Line balancing, computerized line balancing - Job sequencing algorithms Johnson's rule: Sequencing Jobs through Two Serial Processes

UNIT IV PRODUCTIVITY AND MAINTANANCE

12 hours

Productivity: Concept, Measurement, Factors Affecting Productivity - Job Design Approaches Work Study: Method Study and Work Measurement Techniques - Maintenance Management: Objectives and types) - Industrial Safety: Principles, Causes of Accidents, Safety Programs – ergonomics and workplace design

UNIT V MATERIALS AND QUALITY MANAGEMENT

12 hours

Materials Management: Functions, Costs Associated with Inventory - Inventory Control techniques: EOQ, ABC, VED, FSN, HML Analysis - Materials Requirement Planning - Just-In-Time (JIT) and Kanban System - Quality Management: Concepts of TQM, Quality Circles, Zero Defects Programme, Six Sigma - Statistical Quality Control (SQC): Control Charts, Acceptance Sampling – Introduction to ISO Standards

Course Outcomes:

By the end of the course students will be able to

CO1: Demonstrate knowledge of operations strategy and systems in both manufacturing and services.

CO2: Apply tools for facility location, layout design, and process planning to solve practical problems.

CO3: Develop production schedules and control mechanisms suitable for mass, batch, and job-order systems.

CO4: Implement productivity measurement, job design, and work study techniques for operational efficiency.

CO5: Use inventory models, TQM, Six Sigma, and modern quality tools to improve organizational competitiveness

Text Books:

1. Chary, S. N. (2020). *Production and Operations Management* (6th ed.). McGraw Hill Education India
2. Panneerselvam, R. (2012). *Production and Operations Management* (3rd ed.). PHI Learning Pvt. Ltd
3. Heizer, J., Render, B., & Munson, C. (2023). *Operations Management: Sustainability and Supply Chain Management* (14th ed., Global Edition). Pearson publication house
4. Mahadevan, B. (2015). *Operations Management: Theory and Practice* (3rd ed.). Pearson Education India

Reference Books:

1. Bedi, K. (2018). *Production and operations management* (3rd ed.). Oxford University Press
2. Goel, B. S. (2019). *Production operation management* (28th ed.). Pragati Prakashan
3. Stevenson, W. J. (2022). *Operations Management* (13th ed.). McGraw-Hill Education

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

25MCMBATC11 STRATEGIC MANAGEMENT

L T P C
3 0 0 3

Pre-requisite: None

Course Description: The course imparts the students with an overview of Strategic Management process and also it develops the skills required to formulate and evaluate the strategies required for organizations.

Course Objectives:

1. To enable students to define and frame objectives, vision and mission for organizations.
2. To discuss various tools and techniques of strategic analysis and choices.
3. To explain strategy formulation and various kinds of strategies
4. To familiarize the process of Strategy implementation and issues related to it.
5. To examine strategy evaluation and control.

UNIT I INTRODUCTION

9 hours

Concept and Role of Strategy; The Strategic Management Process; Approaches to Strategic Decision Making; Strategic Role of Board of Directors and Top Management; Strategic Intent; Concept of Strategic Fit, Leverage and Stretch; Global Strategy and Global Strategic Management; Strategic flexibility. Corporate Sustainability as strategy

UNIT II STRATEGIC ANALYSIS AND CHOICE: TOOLS AND TECHNIQUES

9 hours

Porter's Five Force Model, BCG Matrix, GE Model, Tows Matrix, Market Life Cycle Model, Organizational Learning, The Experience Curve. Environment Analysis & Diagnosis. Balanced Scorecard, Sustainable Advantage and Design Thinking in Strategy (BCG Matrix Using Templates.

UNIT III STRATEGY FORMULATION

9 hours

Strategic options at Corporate Level –Growth, Stability and Retrenchment Strategies; Corporate Restructuring Strategic options at Business Level and at functional level- Strategies for emerging industries-maturing- declining industries, fragmented industries- Hyper – Competitive industries and turbulent industries-offensive-defensive strategies. Hybrid Business Models and strategies for dealing in Various Situations.

UNIT IV STRATEGY IMPLEMENTATION

9 hours

Interdependence of Formulation and Implementation of Strategy; Issues in global strategy Implementation-Planning and allocating resources; Organization Structure and Design; Budgets and support system commitment; culture and leadership. Reasons for Strategy Failure and Methods to Overcome. Role of digital technologies in strategy execution

UNIT V STRATEGY EVALUATION AND CONTROL

9 hours

Establishing strategic Controls-Role of the strategist -benchmarking to evaluate performance strategic information systems-Guidelines for proper Control-Strategic surveillance –strategic audit- Strategy and Corporate Evaluation and feedback in the Indian and international context Reasons and process of firm's internationalization; Multi-country and global strategies; Outsourcing strategies. Ethical dilemmas in strategy execution across borders

Department of Management Studies

Course Outcomes:

At the end of this course students will demonstrate the ability to

CO1: Apply knowledge acquired during the course to develop clear objectives, vision and mission for organizations

CO2: Design various tools and techniques of strategic analysis as appropriate

CO3: Formulate strategy to address organization's needs

CO4: Implement Strategy for organization's success.

CO5: Ability to analyze and predict the impact of strategic decisions.

Text Books:

1. Exploring Corporate Strategy: Text & Cases by Gerry Johnson and Kevan Scholes, 8th edition PHI
2. Strategic Management and Business Policy by Azhar Kazmi, 5th edition Tata Mcgraw Hill

Reference Books:

1. Crafting and Executing Strategy: Concepts and Cases, Thompson, Gamble, Jain, 21/e TMH, 2019
2. Strategic Management Concepts and Cases, Fred R. David 17/e, PHI, 2019
3. Concepts in Strategic Management and Business Policy, Wheelen & Hunger, Pearson Education, New Delhi, 2018.

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

25MCMBATC12 BUSINESS DATA ANALYTICS

L	T	P	C
2	0	2	3

Pre-requisite: None

Course Description: This course blends theoretical understanding with hands-on exercises, enabling learners to handle real business datasets efficiently, perform trend analysis, build predictive models, and automate analysis processes using Excel tools. By the end, students will be confident in leveraging Excel for a wide variety of business analytics tasks, making data-driven decisions in marketing, finance, operations, and strategy.

Course Objectives:

1. To understand the importance of business analytics and Business Intelligence
2. To understand different types of Analytics and its applications.
3. To learn various statistical methods for data analysis, including probability concepts and distributions.
4. To understand predictive analytics and forecasting techniques
5. To understand the role of machine learning in Business Intelligence

UNIT I INTRODUCTION TO BUSINESS ANALYTICS 12 hours

Introduction to Business Analytics (BA) - Need, Features and Use of Business Intelligence (BI) – BI Components – Data Warehouse, Business Analytics, Business Performance Management, User Interface - Business Intelligence versus Business Analytics.

UNIT II INTRODUCTION TO TYPES OF ANALYTICS 12 hours

Sales & Marketing Analytics - HR Analytics- Financial Analytics - Production and operations analytics – Analytics in Industries: Telecom, Retail, Healthcare – Use Excel Pivot tables for case studies - Use Excel Pivot tables for case studies

Experiments:

1. **Sales & Marketing Analytics:** Analyse sales performance by region, product, and time using Excel Pivot Tables.
2. **HR Analytics:** Examine employee performance and retention by department and demographics with Excel Pivot Tables.
3. **Financial Healthcare Analytics:** Analyse billing, service usage, and insurance coverage using Excel Pivot Tables.

UNIT III STATISTICS FOR BUSINESS ANALYTICS 12 hours

Types of Data - Definition, Sources, Storage and Characteristics of Structured, Unstructured and Semi Structured Data - Review of descriptive and inferential statistics, Graphical representation of data - What if analysis, Data tables, Scenario manager and Goal Seek.

Experiments:

1. Statistics with Excel: Explore descriptive and inferential statistics with graphical data representations.
2. What-if Analysis: Use Data Tables, Scenario Manager, and Goal Seek in Excel for decision-making.
3. Data Visualization: Create charts, Pivot Tables, and visualizations in Excel for data insights.

UNIT IV PREDICTIVE ANALYTICS WITH STATISTICS

12 hours

Regress models and prediction - Statistical forecasting techniques - Estimation of trend, seasonality and cyclical components. Smoothing models for forecasting – moving average, exponential smoothing methods, time series analysis.

Experiments:

1. Build linear regression model for seasonal trends.
2. Time Series Analysis: Estimate trend, seasonality, and cycles using forecasting techniques.
3. Forecasting with Smoothing Models: Apply moving averages and exponential smoothing in predictions

UNIT V INTRODUCTION TO MACHINE LEARNING

12 hours

Types of machine learning – Supervised, Unsupervised Learning. Classification Techniques – K nearest Neighbour, Decision Tree – Clustering concept - k-means

Experiments:

1. Supervised Learning: Implement K-Nearest Neighbours
2. Unsupervised Learning: Perform clustering with K-Means

Course Outcomes:

Upon successful completion of the course, students will be able to

CO1: Understand the use of Business Intelligence and analytics in getting insights from the data

CO2: Recognize the role of business intelligence in the domain.

CO3: Extract insights from data with the use of various descriptive statistics tools.

CO4: Implement regression technique to build predictive models.

CO5: Apply various machine learning techniques to make complex business decisions

Text Books:

1. Jeffrey Camm, James Cochran(2019); Essentials of Business Analytics,
2. Levin, R. I., & Rubin, D. S. (2017). Statistics for Management (8th ed.). Pearson Education
3. Digital Design, 6th Edition, M. Morris Mano, Pearson Education.

Reference Books:

1. Ramesh Sharda, Dursun Delen, and Efraim Turban (2017) "Business Intelligence: A Managerial Perspective on Analytics," Pearson, 3rd edition.
2. Albright C. S., Winston Wayne L. and Zappe C. J (2009). Decision Making Using Microsoft Excel (India Edition). Cengage Learning.
3. Evans J. R (2013). Business Analytics Methods, Models and Decisions. Pearson, Upper Saddle River, New Jersey

Mode of Evaluation: Assignments, Continuous Assessment, Mid Term Tests and End Semester Examination

MBA I Year II Semester

25MCMBATC13 BUSINESS RESEARCH AND ECONOMETRICS

L	T	P	C
3	0	2	4

Pre-requisite: None

Course Description:

This course provides a comprehensive introduction to business research methods and econometrics. It aims to equip students with the necessary tools and techniques for conducting effective business research and applying econometric models to analyze economic data. The course covers various research methodologies, data collection methods, and advanced econometric techniques, with practical applications in business decision-making.

Course Objectives:

1. To understand the fundamental principles of business research and scientific methods of business research.
2. To gain knowledge of econometrics and its applications in business.
3. Develop analytical and decision-making skills to prepare research design.
4. To develop skills in time series analysis and econometric modeling.
5. To effectively write research reports and understand the importance of plagiarism checks.

UNIT I INTRODUCTION TO BUSINESS RESEARCH AND PROCESS 15 hours

Business research – Definition – Types of Research– Role of Business Research in Managerial Decisions – Information needs of Business – Commonly used Technologies in Business Research such as Groupware, Neural Networks, CAM, CAD, ERP, SPSS – Steps involved in research process - Problem Identification – Preliminary Data Gathering – Literature Survey – Theoretical Framework – Sampling: Probability and non – probability sampling methods – Hypothesis Development – Applications of Bivariate and Multivariate statistical techniques.

Lab Experiment: Correlation and Multiple regression

UNIT II INTRODUCTION TO ECONOMETRICS 15 hours

Definitions, Importance and scope of econometrics, Mathematics vs Statistics vs Econometrics – the methodology of econometric research – Desirable properties of estimators: - Unbiasedness, Efficiency, Consistency and Sufficiency – Estimation Theory – OLS method Assumptions, Heteroscedasticity – Auto correlation (first order), Multicollinearity.

Lab Experiment: Residual Tests (Multicollinearity Test, Auto correlation and Heteroscedasticity test)

UNIT III RESEARCH DESIGN AND COLLECTION OF DATA 15 hours

Types of Research Designs: Exploratory, Descriptive, Experimental Designs and Case Study – Measurement of Variables :- Rating Scales, Ranking Scales – Reliability and Validity – Sources of Data: Primary Sources of Data , Secondary Sources of Data – Data Collection Methods :- Interviews (Structured Interviews, Unstructured Interviews, Face to face and Telephone Interviews) – Observational Surveys - Questionnaire Construction: (Organizing Questions, Structured and Unstructured Questionnaires, Guidelines) Multivariate Analysis – Logistic Regression, Discriminant Analysis and Cluster Analysis.

Lab Experiment: Logistic Regression, Discriminant Analysis and Cluster Analysis

UNIT IV TIME SERIES ANALYSIS

15 hours

Basics of Time Series; Unit Root Test, Correlogram, ARMA and ARIMA – Box – Jenkins Methods - Error Measurements – Univariate Time Series Modelling – Integration Test – Causality Test – Estimation of VAR, ARCH/GARCH-EGARCH/TGARCH models.

Lab Experiment: Unit Root Test, ARMA – ARIMA, VAR, ARCH/GARCH and EGARCH/TGARCH models.

UNIT V RESEARCH REPORT WRITING AND PLAGIARISM CHECK

15 hours

Research Report: (Components, Title Page, Table of Contents, Executive Summary, Introductory Section, Body of the Report, Conclusion of the Report, References, Appendix) – Guidelines for Preparing a Good Research Report – Oral Presentation- Handling Questions. Introduction to Plagiarism check – Ethics in Business Research – Subjectivity and Objectivity in research.

Course Outcomes:

At the end of this course students will be able to:

CO1: To prepare a research plan for Business decisions.

CO2: To employ Econometric Techniques for the Real Time Data.

CO3: To a data collection and analysis of Panel Data.

CO4: Analyze and interpret the Time Series models and other Econometric Modeling.

CO5: Prepare and present Comprehensive Research Report.

LIST OF EXPERIMENTS

1. Correlation
2. Multiple Regression
3. Residual Tests (Multicollinearity, Heteroscedasticity, Auto Correlation)
4. Logistic Regression
5. Cluster Analysis
6. Multiple Discriminant Analysis
7. Unit Root Test (Augmented Dicky Fuller Test)
8. Auto Regressive Moving Average (ARMA)
9. Auto Regressive Integrated Moving Average (ARIMA)
10. Vector Auto regression (VAR)
11. Autoregressive Conditional Heteroscedasticity (ARCH) and Generalized Autoregressive Conditional Heteroscedasticity (GARCH)
12. Exponential EGARCH and Threshold GARCH (TGARCH)

Text Books:

1. Richard I. Levin, David S. Rubin(1998) Statistics for Management, 7th Edition, Pearson Education
2. S.P. Gupta(2001) Business Statistics, Sultan Chand & Sons
3. James T. McClave, P. George Benson, Terry Sincich(2017) Statistics for Business and Economics, 13th Edition, Pearson Education

Reference Books:

1. N.D. Vohra (2017) Quantitative Techniques for Management, Tata McGraw Hill
2. David M. Levine, Kathryn A. Szabat, David F. Stephan(2019),: Business Statistics: A First Course, 8th Edition, Pearson
3. Paul Newbold, William Carlson, Betty Thorne,(2022) Statistics for Business & Economics, 8th Edition, Pearson Education

Mode of Evaluation: Assignments, Mid Term Tests, Continuous Internal Evaluation (Record) and End Semester Examination

Pre-requisite: None

Course Objectives:

1. To familiarize students with the corporate communication functions, nature and corporate social responsibility and flow of communication decisions.
2. To improve the corporate aspects of Personality Development.
3. To Broaden and an understanding of Employability Quotient in Corporate Management
4. To enable the students to write an effective Business Letters and reports and improve presentation skills of students.
5. To develop Business and social Etiquette.

UNIT I INTRODUCTION TO CORPORATE COMMUNICATION

9 hours

Corporate Communication: Definition, Nature, Scope, Principles and functions of corporate communication, Importance, Historical Overview, Evolution of Corporate Communication, Role of Corporate Communication. Flow of Communication in organizations: Bottom-up, top down, Vertical and horizontal, Barriers to communication, Importance of Listening, Ethical Considerations in Corporate Communication

UNIT II DIMENSIONS OF CORPORATE COMMUNICATION

9 hours

Self Confidence – Self Esteem - Body language - Perception - Decision-making skills – Negotiating Skills – Positive Attitude - Qualities of a successful leader – Time management - Work ethics- Feedback on Communication in the Corporate Setting.

UNIT III CORPORATE EMPLOYABILITY QUOTIENT

9 hours

Resume building- The art of participating in Group Discussion – Facing the Personal (HR & Technical) Interview -Frequently Asked Questions - Employability Skills - Mock Interview Sessions

UNIT IV REPORT WRITING AND PRESENTATION SKILLS

9 hours

Business Letters and Reports Writing: Principles of effective business letters, format and types of Business letter, Report Writing: Progress report, Annual report and Analysis of sample reports from industry. Presentation Skills: Elements of presentation, designing a presentation and presentation of charts & graphs, appearance & posture, practicing delivery of presentation.

UNIT V BUSINESS & SOCIAL ETIQUETTE

9 hours

Business & Social Etiquette: Professional conduct in a business setting: proper way to make introductions. Professional Image: appropriate business attire; Meeting Etiquettes, Email Etiquettes, Table Etiquettes - Telephone Etiquette- situation based telephonic conversations

List of Exercises:

The following experiments need to be performed

- 1.Draft a Business Letter Exercise
2. Write a permission letter for Industrial Visit.
- 3.Great personalities, Managers, Film Heroes, Heroines, Politicians, CEO's
- 4.Gratitude Journal

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- 5.Resume Preparation
- 6.Conducting HR Round
- 7.Perception-Checking Practice
8. Preparing power point presentations based on various business situation.
- 9.Interpersonal skills
- 10.Telephonic conversations (situation based).
- 11.Conduct of a business meeting and writing the briefing of meetings.
12. Business & Social Etiquette.

Course Outcomes:

Upon Successful completion of the course, students will be able to

CO1: Understand the basics fundamentals of corporate communication for managers and enable them to read fluently.

CO2: Understand the different aspects of Personality Development

CO3:Apply the Employability Quotient concepts by different business situations in corporate management

CO4: Prepare effective presentation of data, graphs and writing different reports

CO5: Apply the business communication in self-development process. Application of business communication in the self-development process.

Text Books:

1. Paul A Agrenti (2012). Corporate Communication, Mc Graw-HILL, New York, United States
2. Hurlock, E.B (2006). Personality Development, 28th Reprint. New Delhi: Tata McGraw Hill.

Reference Books:

- 1 M.K. Sehgal & V. Khetrapal (2007); Business Communication; Excel Books
- 2 Rajendra Pal(2011).Business Communication; Sultan Chand & Sons Publication
- 3 P.D. Chaturvedi (2006); Business Communication; Pearson Education, 1st Edition
- 4 Andrews, Sudhir(1988); How to Succeed at Interviews. 21st (rep.) New Delhi. Tata McGraw-Hill
- 5 Heller, Robert (2002); Effective leadership. Essential Manager series. Dk Publishing
- 6 Joep Cornelissen(2023) Corporate communication: A Guide to Theory and Practice; Erasmus University Rotterdam, Netherlands

Mode of Evaluation: Continuous Internal Evaluation (Record) and End Semester Examination

AUDIT COURSE

Audit Course – I

25MCMBAAC01 E-COMMERCE AND DIGITAL MARKETS

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description:

This course introduces the concepts, models, and technologies of e-commerce, covering B2B, B2C, C2C, P2P, and m-commerce. It explores e-commerce infrastructure, supply chain and CRM integration, ethical and legal issues, and e-markets, with emphasis on pre- and post- COVID-19 business strategies and trends. Students gain practical insights into designing and managing successful e-business solutions.

Course Objectives:

1. Introduce the concept of e-business and core e-commerce business models.
2. Explain the e-commerce framework and the key enablers.
3. Provide an overview of supply chain and retail transformation.
4. Discuss social, ethical, and legal issues.
5. Familiarize students with e-markets and digital payment systems.

UNIT I E – COMMERCE BUSINESS MODELS

6 hours

Introduction to E-Business: Origin and Need of E-Commerce; E-Commerce vs Traditional Commerce. **E-Commerce Framework:** Business and Technological Dimensions. **Value Chains in Electronic Commerce.** **E-Commerce Business Models:** B2C, B2B, C2C, P2P, M-Commerce. **Emerging Models:** Platforms, Marketplaces, Digital Ecosystems.

UNIT II E – COMMERCE ENABLERS

6 hours

Technology Enablers: Internet, Web, Mobile Platforms, Cloud. **Business Enablers:** Digital Payments, Logistics, Platforms. **E-Commerce Adoption:** Impact of Covid-19 on Digital Business Growth.

UNIT III SUPPLY CHAIN MANAGEMENT IN E – COMMERCE

6 hours

Supply Chain Basics: Digital Supply Chains; B2B E-Commerce and Collaborative Commerce. **Customer Relationship Management (CRM):** Role in Digital Markets, Customer Experience and Retention. **Retail Transformation:** Omnichannel Retailing, Quick Commerce Models, Impact on Traditional Retail.

UNIT IV SOCIAL, POLITICAL, AND ETHICAL ISSUES

6 hours

Ethical, Social & Political Issues: dilemmas, social impact, political concerns. **Privacy and Data Protection:** data usage, security, compliance. **Intellectual Property Rights (IPR):** copyright, patents, trademarks, digital content ownership. **Consumer Protection & Governance:** rights in digital markets, policies, self-regulation.

UNIT V E-MARKETS

6 hours

E-Markets: E-Markets vs Traditional Markets; Success Factors of E-Markets. **E-Procurement:** Processes and Models (overview). **E-Commerce Systems:** Essential E-Commerce Processes; Clicks-and-Bricks Models. **Digital Payment Systems:** UPI, Wallets, Cards, BNPL; Security and Trust Issues. **Emerging Trends:** AI in E-Commerce; Blockchain Applications; Cross-Border E-Commerce.

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Course Outcomes:

CO1: Understand the concepts of e-business and the business models used in e-commerce

CO2: Learn about the e-commerce enablers and infrastructure

CO3: Develop an insight into supply chain management

CO4: Analyse into the socio, political and ethical issues in e-commerce.

CO5: Develop an understanding of e-markets and e-commerce payment systems

Text Books:

1. Laudon, K. C., & Traver, C. G. (2021). *E-commerce 2021: Business, technology, and society* (16th ed.). Pearson.
2. Chaffey, D., Hemphill, T., & Edmundson-Bird, D. (2019). *Digital business and e-commerce management: Strategy, implementation and practice* (7th ed.). Pearson.
3. Bhanver, J., & Bhanver, K. (2017). *Click!: The amazing story of India's e-commerce boom and where it's headed*. Hachette India.

Reference Books:

- 1 Bhaskar, B. (2009). *Electronic commerce: Framework, technologies and applications* (3rd ed.). Tata McGraw Hill Education.
- 2 Erisman, P. (2017). *Six billion shoppers: The companies winning the global e-commerce boom*. Macmillan.
- 3 Kalakota, R., & Whinston, A. B. (2009). *Electronic commerce: A guide*. Pearson Education.
- 4 Bajaj, K. K., & Nag, D. (2008). *E-commerce: The cutting edge of business*. Tata McGraw-Hill
- 5 Chaffey, D. (2009). *E-business and e-commerce management*. Pearson Education.

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course – I

25MCMB AAC02 MANAGING DIGITAL INNOVATION AND TRANSFORMATION

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description:

This course introduces strategies and technologies for digital transformation, covering business models, platform growth, process digitization, customer engagement, and IT delivery. It explores social media, cloud computing, value chain evolution, and technology-driven disruptions through case studies, while addressing innovation, virtual organization, and governance in the digital era.

Course Objectives:

1. To provide an overview of the digital transformation
2. To enable student to integrate digital innovation with digital transformation.
3. To enable student to apply Social Media platform for digital transformation.
4. To prepare student to assess how business organizations respond to the emerging trends in digital transformation.
5. To impart the knowledge of digital revolution.

UNIT I OVERVIEW OF DIGITAL TRANSFORMATION

6 hours

Digital Transformation Concepts: Markets, Environment and Structure, designing your Digital Business Model, Launching and Growing a Digital Platform. Understanding Transformation: Business process transformation, Product or service digitization, customer engagement and experience, ecosystem and business model, IT delivery and transformation

UNIT II MANAGING DIGITAL INNOVATION AND TRANSFORMATION

6 hours

Introduction to digital transformation and innovation-classification of digital transformation and innovation – Managing digital innovation and transformation: Need for the transformation; Benchmarking the current digital capabilities, Analyze the results and Optimize performance - Apple case study. Technological developments leading to digital innovation.

UNIT III SOCIAL MEDIA TRANSFORMATIONS

6 hours

Social Media Transformations-Building Digital Capabilities-Challenges in Going Digital-Digital Transformations in the space of cloud computing-Prepare and Drive Digital Transformations - Online business models – technology mediated platform networks -Raymond's Case Study

UNIT IV DIGITAL TRANSFORMATION – NEW TRENDS

6 hours

Digital Transformation: From Products to Platforms, Linear Vs. Triangular Value Chains, The product Service Model: marketing, Finance and Supply Chains. Technological enabled disruptions in today's business environment, and Appraisal of response of incumbents to the technological disruptions – Paytm Case Study and Facebook Case Studies.

UNIT V DIGITAL INNOVATION AND REVOLUTION

6 hours

Organization and cultural issues - building and managing a virtual organization, Leveraging Open innovation, Governing Your Digital Platform, Strategy and Competition in the Digital Age, Factors for Digital Innovation and Revolution, Service Innovation Initiatives –Google Case Study

Recommended software's for Data Analysis

1. Dronahq
2. Pivotal
3. Adlib software

Course Outcomes:

At the end of this course students will demonstrate the ability to

CO1: Elucidate the concept digital transformation

CO2: Integrate digital innovation with digital transformation

CO3: Apply advances in social media platform for digital transformation.

CO4: Evaluate response of business organizations to the emerging trends in area of digital transformation.

CO5: Discuss digital revolution

Text Books:

1. Thomas Hess (2022); Managing the Digital Transformation -A Guide to Successful Organizational Change; Springer Nature Link

Reference Books:

1. ByM. Affan Badar, Ruchika Gupta, Priyank Srivastava, Imran Alin, Elizabeth A. Cudney(2024) Handbook of Digital Innovation, Transformation, and Sustainable Development in a Post-Pandemic Era; CRC Press
2. Richard Pettinger, Brij B. Gupta, Alexandru Roja, and Diana Cozmiuc(2022); Handbook of Research on Digital Transformation Management and Tools, IGI Global Scientific Publications

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course – I

25MCMBAAC03 MANAGEMENT INFORMATION SYSTEMS

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description: This course provides an overview of information systems in business, covering their components, resources, strategic roles, and applications. Topics include database management, systems development processes, and types of information systems across functional areas. Students will also explore IT-enabled business strategies, information security, ethical and global management challenges, with emphasis on using information systems for competitive advantage.

Course Objectives:

1. To familiarize the students with the foundation concepts of Information System and fundamentals of strategic advantage.
2. To enable the students to have an understanding about the database approach to improve business and decision-making process.
3. To elucidate and learn about the system development life cycle method and different strategies for business development.
4. To enable the students to analyze system vulnerabilities and analyze various methods of communications in decision making process.
5. To provide an insight into the management challenges, controlling techniques and establishing security framework.

UNIT I INTRODUCTION AND FOUNDATION CONCEPTS

6 hours

Foundations of information systems (IS) in business System concepts, Components of an IS, IS Resources, fundamental roles of IS applications in business – trends in IS – types of IS – managerial challenges of information technology. Competing with information technology (IT) Fundamentals of strategic advantage – strategic uses of IT – the value chain and strategic IT – using IT for strategic advantages – the basics of doing business on the Internet.

UNIT II DATA BASE AND INFORMATION MANAGEMENT

6 hours

Data in a Traditional file Environment, The Database Approach to Data Management; Role of databases in business performance and decision making, Manage data Resources. The Role of Information System in Business Today, Perspectives on Information Systems, Contemporary Approaches to Information Systems, Organization and Information Systems.

UNIT III MIS DEVELOPMENT PROCESS

6 hours

System development – System Life cycle method, Structured Development method, Developing Business/IT Strategies Planning for competitive advantage – business models and planning – Business/IT planning – Business application planning – Implementing IT–IS development – the Systems approach – the Systems Development Cycle – Prototyping – Systems development process – End-user development – implementing new systems – Software development.

UNIT IV INFORMATION SYSTEMS IN FUNCTIONAL DEPARTMENTS

6 hours

Computers in Management – Types of information system: basing on levels of management – Transaction processing systems – Management Information system – Decision support system– executive support systems - Applications: Human Resource information system – Financial information system –Marketing information system – production and operations information system- Technologies and Tools for Protecting Information Resources.

UNIT V SYSTEM AUDIT & MANAGEMENT CHALLENGES

6 hours

Security and ethical challenges– computer crime – privacy issues –health issues – Security management of IT – tools of security management -Verification and Validation— security measures - Ethical and Social Issues in Information System - Enterprise and global management of IT Managing the IS function – failures in IT management – the international dimension in IT management – Cultural, political, and geo-economic challenges Global business/IT strategies and applications – global IT platforms.

Course Outcomes:

CO1: Understand the Information system concepts and strategic advantage.

CO2: Elucidate and learn about database and Information Management

CO3: Learn about the Systems development cycle and MIS Development Process.

CO4: Gain insight into system vulnerabilities and various methods of communications in decision making process.

CO5: Analyze the management challenges and security issues.

Text Books:

1. C. Laudon Kenneth , P. Laudon Jane (2018). Management Information System Pearson Publications.
2. A. O'Brien, George M. Marakas, Ramesh Behl (2017). Management Information 11 edition ; McGraw Hill Education
3. Stair, R. M. & Reynolds, G. W. (2001). Principles of Information Systems, 5e, Singapore: Thomson Learning.

Reference Books:

1. Gordon B. Davis & Margrethe H. Olson(2006); Management Information Systems, Tata McGrawHill,
2. W S Jawadekar (2009);Management Information Systems Text & Cases, Tata McGraw-Hill ,
3. James A. O brein(2009), Management Information Systems; Tata McGraw-Hill , 10/e,.
4. Dharminder and Sangeetha(2006) Management Information Systems, 1/e, Excel books,

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course -1

25MCMBAAC04 BUSINESS PROCESS RE-ENGINEERING

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description:

Business Process Re-Engineering (BPR) focuses on radically redesigning organizational workflows to improve efficiency, quality, and responsiveness. The course covers BPR principles, tools, and change management strategies, enabling learners to analyze existing processes, identify inefficiencies, and implement transformative solutions aligned with strategic goals and technological advancements.

Course Objectives:

1. Understand the fundamentals and significance of Business Process Re-Engineering (BPR).
2. Analyze existing business processes and identify areas for improvement.
3. Apply BPR methodologies to redesign processes for enhanced performance.
4. Evaluate the impact of BPR on organizational structure, culture, and technology.
5. Design and implement BPR strategies in real-world business scenarios.

UNIT I INTRODUCTION TO BUSINESS PROCESS REENGINEERING

6 hours

Business process reengineering-an overview: Historical background Fundamentals of BPR Concepts and techniques. Changing business processes: the importance of technology as a driver for organization: Nature, significance and rationale of business process reengineering (BPR)

UNIT II PROCESS MAPPING AND ANALYSIS:

6 hours

Identifying core business processes- Process mapping techniques (Flowcharts, SIPOC, Value Stream Mapping)- Performance metrics and KPIs- Identifying bottlenecks and inefficiencies. Process redesign: Major issues in process redesign: Business vision and process objectives, Processes to be redesigned, measuring existing processes, Role of information technology (IT) and identifying IT levers.

UNIT III BPR METHODOLOGIES AND TOOLS

6 hours

Hammer and Champy's methodology -- Davenport's approach- Tools: ERP, Workflow Automation, Simulation - Case studies of successful BPR projects. BPR phases, Relationship between BPR phases. BPRE & TQM, benchmarking, ISO standards. Implementation of BPRE-business process management, principles, Business models, barriers.

UNIT IV ORGANIZATIONAL IMPACT OF BPR

6 hours

Change management in BPR- Role of leadership and Communication-Cultural and structural Implications-Risk assessment and Mitigation-Redesigning processes for agility and Efficiency-Implementation planning- Monitoring and continuous improvement- **Change management:** Change and the manager: change and the human resource: the cultural web and the past: the cultural attributes of change Typical BPR activities within phases: Change management, Performance management, and programme management.

UNIT V DESIGNING AND IMPLEMENTING BPR

6 hours

Redesigning processes for agility and efficiency - Implementation planning - Monitoring and continuous improvement- BPR and continuous improvement: Co-ordination and complementary efforts, IT capabilities and their organizational -impacts, Implementation of BPR, Stages of implementation and critical aspects, Case studies on BPR. The concept of the learning organization and its influence on systems development: restructuring the organization. The importance of communication and the resistance to change: building the culture for successful strategy implementation; the influence IT will have on the internal appearance of organizations in the future.

Course Outcomes:

CO1: Define key concepts and principles of BPR. (*Remembering*)

CO2: Explain the role of BPR in business transformation. (*Understanding*)

CO3: Apply BPR tools and techniques to analyze business processes. (*Applying*)

CO4: Compare and evaluate different BPR models and strategies. (*Analyzing & Evaluating*)

CO5: Create innovative process designs and implementation plans. (*Creating*)

Text Books:

1. Omar El Sawy (2010), Business Process Re-engineering, Tata McGraw Hill
2. R. Srinivasan,(2011) Business Process Re-engineering, Tata McGraw Hill
3. Warner Winslow(1996) Strategic Business Process Transformation through BPR, , Tata McGraw Hill ,
4. R. Radhakrisnan(2008) Business Process Reengineering, Prentice Hall of India.
5. Harmon, P. (2007), Business Process Change : A Guide for Business Managers and BPM and Six Sigma Professionals, Elsevier/Morgan Kaufmann Publishers.
6. R. Anupindi et al. (2006), Managing Business Process Flows: Principles of Operations Management, Pearson Education Inc.
7. Kock, N.F., 1999, Process Improvement and Organizational Learning: The Role of Collaboration Technologies, Idea Group.
8. Walford, R.B., 1999, Business Process Implementation for IT Professionals and Managers, Artech House.
9. Hammer, M. and Stanton, S.A., 1995, The Re-engineering Revolution, Harper Business.

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course – 2

25MCMBAAC05 TOTAL QUALITY MANAGEMENT

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description:

This course introduces the foundations of Total Quality Management (TQM), its evolution, frameworks, and key contributors. It emphasizes principles of customer focus, employee involvement, supplier partnerships, and continuous improvement. Students learn tools and techniques including QC tools, Six Sigma, benchmarking, FMEA, QFD, DOE, and TPM. The course also covers implementation practices like Kaizen, 5S, JIT, Poka-Yoke, robust design, and ISO standards with case studies.

Course Objectives:

1. Study comprehensive knowledge about the principles, practices, tools and techniques of total quality management
2. Gain knowledge on leadership, customer satisfaction, addressing customer complaints, team work, employee involvement, related to customer and supplier partnership.
3. Gather information on various tools and techniques, concept on Six Sigma, bench marking and Failure Mode Effective Analysis (FMEA).
4. Know the importance of Quality circle, Quality Function Deployment, Taguchi design and case studies related to TQM.
5. Implement TQM

UNIT I INTRODUCTION

6 hours

Introduction - Need for quality - Evolution of quality - Definition of quality – Quality control, Quality management and Quality Assurance - Definition of TQM – Basic concepts of TQM – TQM Framework - Contributions by Deming, Juran and Crosby – Dimensions of quality – Benefits of quality and Barriers

UNIT II TQM Principles

6 hours

TQM principles - Strategic quality planning, Quality statements - Customer focus– Customer orientation, Customer satisfaction, Customer complaints Customer retention - Employee involvement – Motivation, Empowerment, Team and Teamwork, Recognition and Reward, Performance appraisal - Continuous process improvement – Supplier partnership – Partnering, Supplier selection, Supplier Rating.

UNIT III TOOLS AND TECHNIQUES I

6 hours

The seven traditional tools of quality – New management tools – Six-sigma: Concepts, methodology, applications to manufacturing, service sector including IT – Bench marking – Reason to bench mark, Bench marking process – FMEA.

UNIT IV TOOLS AND TECHNIQUES II

6 hours

Quality circles – Quality Function Deployment (QFD) – Design of Experiments-Taguchi quality loss function – TPM – Concepts, improvement needs – Cost of Quality Performance measures.

UNIT V IMPELMENTATION OF TQM

6 hours

Steps, KAIZEN, 5S, JIT, POKAYOKE, I - Introduction to Robust Design, ISO Standards and Case studies.

Course Outcomes:

CO1: Understand the various principles and practices of TQM to achieve quality.

CO2: Identify the various statistical approaches for Total Quality Control.

CO3: Demonstrate the TQM tools for continuous process improvement.

CO4: Adopt the importance of ISO and Quality systems.

CO5: Make use of the concepts of TQM to solve case studies

Text Books:

1. Dale H. BesterField, et al., Total Quality Management, Pearson Education Asia, Third Edition, Indian Reprint (2003).

Reference Books:

1. James R. Evans and William M. Lindsay, The Management and Control of Quality, (6th Edition), South- Western (Thomson Learning), 2005.
2. Oakland, J.S. TQM – Text with Cases”, Butterworth – Heinemann Ltd., Oxford, Third Edition (2003).
3. Suganthi,L and Anand Samuel, Total Quality Management, Prentice Hall (India) Pvt. Ltd. (2006).

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course – 2

25MCMBAAC06 MULTIMEDIA TECHNOLOGIES

L	T	P	C
2	0	0	0

Pre-requisite: None

Course Description:

This course introduces multimedia technologies, covering elements, applications, system architecture, and standards. It explains compression techniques and file formats for text, image, audio, and video data. Students learn about multimedia I/O devices, networks, protocols, and streaming technologies. The course also explores security, encryption, watermarking, and digital forensics with case studies.

Course Objectives:

1. To provide the foundation knowledge of multimedia computing
2. To provide the knowledge about media characteristics compression standards, multimedia representation, data formats, multimedia technology development.
3. To understand Multimedia, I/O technologies
4. To understand Multimedia Networks
5. To understand Multimedia security and forensics

UNIT I INTRODUCTION TO MULTIMEDIA TECHNOLOGIES 6 hours

Introduction to Multimedia: Multimedia Elements – Multimedia applications – Multimedia System Architecture – Evolving technologies for Multimedia – Defining objects for Multimedia systems – Multimedia Data interface standards – Multimedia Databases.

UNIT II COMPRESSION AND FILE FORMATS 6 hours

Compression and Decompression: Need for Data Compression – Types of Compression – Binary Image Compression Schemes – Image Compression – Video Compression – Audio Compression. Data and File Format Standards: Rich Text Format – TIFF File Format – Resource Interface File Format – MIDI File Format - JPEG DIB File Format – AVI Indeo File Format – MPEG Standards –TWAIN.

UNIT III MULTIMEDIA I/O TECHNOLOGIES 6 hours

Input and Output Technologies: Multimedia I/O Technologies: Image Scanners – Digital Voice and Audio– Digital Camera – Video Images and Animation – Full Motion Video -Video Motion Analysis.

UNIT IV MULTIMEDIA NETWORKS 6 hours

Protocol - QOS Issues - RTP, RTCP, RTSP, SIP - Media on demand –ITV - STB Broadcast Schemes for VoD Buffer Management- Multimedia over wireless networks.

UNIT V MULTIMEDIA SECURITY AND FORENSICS 6 hours

Multimedia encryption - Digital Watermarking Security Attacks- Digital Forensics taxonomy, goals/requirements - Forensic Data Acquisition -Forensics Analysis and Validation.

(Relevant Case Studies to be discussed)

Course Outcomes:

- CO1:** Understand the characteristics of different media and the representations of different multimedia data formats.
- CO2:** Understand the characteristics of Image, Audio and Video systems and takes into considerations in multimedia techniques design and implementation.
- CO3:** Describe different coding and compression principles and compare different compression techniques.
- CO4:** Design multimedia components efficiently
- CO5:** Develop integrated, collaborative multimedia systems

Text Books:

1. K. Andleigh, Kiran Thakrar , Multimedia Systems Design, PHI, 2007
2. ZeNian Li, S. Drew, “Fundamentals of Multimedia”, PHI, 2006
3. Li, Ze-Nian and Mark S. Drew, “Fundamentals of Multimedia”, Prentice Hall of India, 2004.
4. Steinmetz Ralf and K. Nahrstedt “Multimedia: Computing, Communications & Applications”, Pearson Education, 1995.

Reference Books:

1. Ralf Steinmetz and Klara, “Multimedia Computing, Communications and Applications”, Pearson Education, 2009
2. Min Wu, Bede Liu, “Multimedia Data Hiding”, Springer-Verlag, 2002
3. I.Cox, M. Miller, and J. Bloom, "Digital Watermarking", Morgan Kaufman Publishers, 2001
4. Chun-Shien Lu, “Multimedia Security : Steganography and Digital Watermarking techniques for Protection of Intellectual Property”, Springer Inc 2007

Mode of Evaluation: Assignments and Mid Term Tests

Pre-requisite: None

Course Description: This course is an applied statistics course focusing on data analysis. The course will begin with an overview of how to organize, perform, and write-up data analyses. Instead of focusing on mathematical details, the lectures will be designed to help you apply these techniques to real data using the R statistical programming language, interpret the results, and diagnose potential problems in your analysis. This course covers practical issues in statistical computing which include programming in R, reading data into R, accessing R packages, writing R functions, debugging, profiling R code, and organizing and commenting R code.

Course Objectives:

1. To learn fundamental concepts of R programming and its utility in data analysis, including working with various data types, objects, and structures.
2. To understand the role of control structures and develop the ability to write custom functions with appropriate scoping rules in R.
3. To master loop functions for repetitive tasks and learn debugging techniques to ensure error-free code execution.
4. To learn simulation fundamentals and code profiling techniques to analyze and optimize R scripts.
5. To expertise in working with vectors and variables in R and apply vectorized operations for efficient programming.

UNIT I INTRODUCTION

6 hours

Gain a comprehensive overview of R, its applications, and utility in data analysis. Explore the various data types and objects available in R, understanding their properties and uses. Learn to efficiently read data from different file formats and write data outputs using R. R Data Structures – Vectors – Lists – Arrays – Matrice - Data Frames - Factors.

UNIT II CONTROL STRUCTURES AND FUNCTIONS

6 hours

Understand the role of control structures in programming, such as conditional statements and loops, to manage the flow of execution. Develop and utilize custom functions in R, along with a deep dive into scoping rules for variable accessibility. Learn to handle and manipulate dates and times for temporal data analysis.

UNIT III LOOP FUNCTIONS AND DEBUGGING

6 hours

Learn the fundamentals of simulation to model and analyze real-world scenarios. Acquire skills in code profiling to evaluate the performance of R scripts, identify bottlenecks, and optimize the efficiency of code for computational tasks.

UNIT IV PROFILING R CODE

6 hours

Master the application of loop functions in R, such as apply, lapply, sapply, and their variants, to streamline repetitive tasks. Discover effective debugging tools and techniques to identify and resolve errors in your R code, ensuring robust and efficient code execution.

UNIT V VECTOR AND VARIABLES

6 hours

Engage with the R interpreter to execute and test code interactively, gaining real-time feedback. Understand the structure and manipulation of vectors and variables, which form the backbone of R programming. Explore the creation and application of R functions for a deeper insight into vectorized operations.

Course Outcomes:

- CO1:** Understand basic R data structures like vectors, lists, arrays, matrices, data frames, and factors for data handling.
- CO2:** Use control structures and functions to manage program flow and handle date- time data in R.
- CO3:** Utilize loop functions such as apply, lapply, and sapply, and debug code to ensure robust and efficient execution.
- CO4:** Analyze profiling R code, identify performance bottlenecks, and optimize computational efficiency.
- CO5:** Demonstrate various operations on vectors and variables, leveraging R's interpreter for interactive testing and execution.

Text Books:

1. R Programming for Data Science by Roger D.Peng, Lean publisher.
2. 25 Recipes for Getting Started with R, Publisher: O'Reilly Media, January 2011.
3. Learning R Paperback by Richard Cotton, Publisher: O'Reilly; 1 edition (20 September 2013).

Reference Books:

1. R for Data Science By Hadley Wickham, Mine Çetinkaya-Rundel and Garrett Grolemund, Publisher: O'Reilly Media, Inc., 2nd Edition, June 2023.

Web Resources

- 1 <https://www.coursera.org/course/rprog>
- 2 <https://www.coursera.org/course/dataanalysis>
- 3 <https://adv-r.hadley.nz/>

Mode of Evaluation: Assignments and Mid Term Tests

Audit Course – 2

25MCMBAAC08 INDIAN KNOWLEDGE SYSTEM

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Pre-requisite: None

Course Description:

This course introduces the Indian Knowledge System (IKS), its historical roots, philosophical schools, and scientific contributions. It explores linguistics, number systems, astronomy, mathematics, medicine, and sustainable technologies. Learners study human values, leadership, governance, art, architecture, and education systems like Nalanda and Gurukula. The course emphasizes the ethical, cultural, and global relevance of IKS, with renewed focus under NEP 2020.

Course Objectives:

1. To introduce the scope, significance, and interdisciplinary nature of Indian Knowledge Systems and their relevance in the modern world.
2. To explore the philosophical and epistemological foundations of Indian Knowledge Systems, including key concepts like Pramāṇa, Dharma, and Rta.
3. To examine the scientific contributions of ancient India in fields such as mathematics, astronomy, medicine, and engineering.
4. To understand Indian perspectives on society, governance, literature, and aesthetics through classical texts and traditions.
5. To appreciate the cultural richness, ethical values, and traditional educational systems that shaped Indian civilization.

UNIT I INDIAN KNOWLEDGE SYSTEM: AN INTRODUCTION

6 hours

Indian Knowledge System: An Overview- Historical evolution and contemporary Relevance- Interdisciplinary approach and integration in education-The Vedic Corpus, The Four Vedas and their components, Oral transmission and cultural continuity--Philosophical Systems, Orthodox (Āstika) and Heterodox (Nāstika) schools, Logic, metaphysics, and epistemology in Indian philosophy -Wisdom through the Ages- Scientific and Mathematical Contributions, Ayurveda, Astronomy, Metallurgy, Mathematics, Key scholars: Charaka, Sushruta, Aryabhata, Bhaskaracharya

UNIT II FOUNDATIONAL CONCEPTS IN INDIAN KNOWLEDGE SYSTEMS

6 hours

Shaping India's intellectual traditions- Ancient Indian linguistics, highlighting phonetics, grammar, and language philosophy-traditional number systems, units of measurement, and their practical applications in science and trade -indigenous frameworks for organizing and classifying knowledge, offering insights into how Indian scholars approached learning, epistemology, and the systemic cultivation of wisdom across disciplines.

UNIT III SCIENCE AND TECHNOLOGY IN INDIAN KNOWLEDGE SYSTEMS

6 hours

India's classical achievements in mathematics, astronomy, architecture, and science. Learners explore ancient texts and applications—highlighting concepts like zero, planetary motion, and structural design. integration of science with philosophy and sustainability. Through notable scholars and indigenous techniques, how Indian scientific thought continues to influence contemporary innovations-offering wisdom for solving modern challenges.

UNIT IV HUMANITIES AND SOCIAL SCIENCES IN INDIAN KNOWLEDGE SYSTEMS

6 hours

Indian insights on leadership, wellbeing, and governance through ancient texts like the Srimad Bhagavad Gita. Topics include holistic management principles, psychological well-being, ethical governance, and traditional administrative models—emphasizing their relevance to modern society, personal growth, and nation-building.

UNIT V CULTURAL, EDUCATIONAL, AND ETHICAL DIMENSIONS OF INDIAN KNOWLEDGE SYSTEMS

6 hours

Art, Architecture, and Aesthetics-Temple architecture and sculpture-Music, dance, and literary traditions-**Education Systems and Institutions**, Gurukula system and pedagogical practices, Ancient universities: Nalanda, Takshashila-**Ethics and Values in Indian Thought**-Dharma, Karma, Moksha — principles of righteous living, Sustainability, harmony, and spiritual ecology-**Contemporary Relevance and Global Influence**, Indian knowledge systems in modern science and culture, Resurgence through NEP 2020 and academic initiatives

Course Outcomes:

- CO1: Describe** the scope and interdisciplinary relevance of Indian Knowledge Systems in contemporary contexts.
- CO2: Analyze** foundational philosophical concepts such as *Pramāṇa*, *Dharma*, and *Rta* within Indian epistemology
- CO3: Apply** ancient Indian scientific principles to understand traditional practices in mathematics, astronomy, and medicine
- CO4: Evaluate** classical Indian texts to interpret perspectives on governance, society, and aesthetics.
- CO5: Design** culturally informed ethical frameworks and educational models inspired by traditional Indian systems.

Reference Books:

1. Introduction to Indian knowledge system: concepts and applications
By [B. Mahadevan](#) , [Nagendra Pavana](#) , [Vinayak Rajat Bhat](#), PHI publications
2. Bhagavad Gita: As It Is" by A.C. Bhaktivedanta Swami Prabhupada Published by The Bhaktivedanta Book Trust
3. "Indian Philosophy, Volume 1 and 2 by S. Radhakrishnan Published by Oxford university press.

Mode of Evaluation: Assignments and Mid Term Tests