CARE COLLEGE OF ENGINEERING
(An Autonomous Institution)

Approved AICTE New Delhi | Affiliated to Anna University Chennai
No 27, Thayanur, Tiruchirappalli 620 009

Curriculum and Syllabus R2026

M.B.A. Full Time Programme

CARE COLLEGE OF ENGINEERING:: TIRUCHIRAPPALLI 620 009
(AN AUTONOMOUS INSTITUTION)
REGULATIONS 2025
CURRICULUM AND SYLLABUS
CHOICE BASED CREDIT SYSTEM (CBCS)

MASTER OF BUSINESS ADMINISTRATION

Institute Vision

Transform lives through education and research

Institute Mission

To impart quality education to students through critical thinking, creativity, leadership and sprit of entrepreneurship

Institute Values

We develop in each member the ability and passion to work effectively for the betterment of humanity with cultural awareness, high ethical and moral values and a sense of social responsibility.

Department Vision

Transforms lives through quality management education and develop globally competent management graduates

Department Mission

M1	**Infrastructure and curriculum development:** To provide excellent infrastructure and innovative curriculum delivery to meet national and global requirements
M2	**Skill development:** To organize workshops, seminars and hands-on-training sessions to equip students with the required skills and knowledge. Also emphasize the development of soft skills like communication, leadership and teamwork
M3	**Research, Innovation and Collaboration:** To encourage students and faculty to engage in research and innovative projects in association with industry

Program Educational Objectives (PEOs)

At the end of the Programme Management Graduates shall	
PEO 1	Have progression towards leadership and team building roles in ones' chosen career
PEO 2	Be an asset to the organization as an effective performer
PEO 3	Be a socially and ethically responsible individual

Program Outcomes for MBA:

After completion of the course, the students will be able to:

PO1	Apply knowledge of management theories and practices to solve business problems.
PO2	Foster Analytical and critical thinking abilities for data-based decision making.
PO3	Develop Value based Leadership ability.
PO4	Understand, analyze and communicate global, economic, legal, and ethical aspects of business.
PO5	Lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

R2026 MBA Program Semester wise Credit

Category		**Semester**				
		I	**II**	**III**	**IV**	**Total**
Professional Core Courses	PCC	27	31	4		62
Non-Functional Electives	NEC	2				2
Professional Elective Courses	PEC			24		24
Employability Enhancement Courses	EEC	2	2	2	12	18
	Total	**31**	**33**	**30**	**12**	**106**

SEMESTER I

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA111	Statistics for Management	PCC	3	1	0	4	4	40	60
2	P26BA121	Managerial Economics	PCC	4	0	0	4	4	40	60
3	P26BA131	Management Concepts & Organizational Behavior	PCC	4	0	0	4	4	40	60
4	P26BA141	Legal Aspects of Business	PCC	4	0	0	4	4	40	60
5	P26BA151	Accounting for Managers	PCC	3	1	0	4	4	40	60
6	P26BA161	Operations Management	PCC	4	0	0	4	4	40	60
7	P26BA173	Business Communication	PCC	2	0	2	4	3	50	50
8		Non-Functional Elective	NEC	0	0	4	4	2	60	40
9	P26EE112	Essential Business Tools - I (Excel, AI & Canva)	EEC	0	0	4	4	2	100	-
			TOTAL	**24**	**2**	**10**	**36**	**31**		

SEMESTER II

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA211	Launching New Venture	PCC	3	0	0	4	3	40	60
2	P26BA221	Financial Management	PCC	3	1	0	4	4	40	60
3	P26BA231	Marketing Management	PCC	4	0	0	4	4	40	60
4	P26BA241	Human Resource Management	PCC	4	0	0	4	4	40	60
5	P26BA251	Quantitative Techniques for Managers	PCC	3	1	0	4	4	40	60
6	P26BA261	Business Research Methods	PCC	4	0	0	4	4	40	60
7	P26BA271	Business Analytics	PCC	4	0	0	4	4	50	50
8	P26BA273	Advance Communication	PCC	3	0	2	5	4	60	40
9	P26EE212	Essential Business tools – II (Power BI)	EEC	0	0	4	4	2	100	-
			TOTAL	**28**	**2**	**6**	**36**	**33**		

SEMESTER III

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA311	Strategic Management	PCC	4	0	0	4	4	40	60
2		Professional Elective I	PEC	3	0	0	3	3	40	60
3		Professional Elective II	PEC	3	0	0	3	3	40	60
4		Professional Elective III	PEC	3	0	0	3	3	40	60
5		Professional Elective IV	PEC	3	0	0	3	3	40	60
6		Professional Elective V	PEC	3	0	0	3	3	40	60
7		Professional Elective VI	PEC	3	0	0	3	3	50	50
8		Professional Elective VII	PEC	3	0	0	3	3	60	40
9		Professional Elective VIII	PEC	3	0	0	3	3	100	-
10	P26EE312	Summer Internship*	EEC	0	0	4	4	2	100	-
			TOTAL	**28**	**0**	**4**	**32**	**30**		

*Summer internship – minimum of 4 weeks of internship.

SEMESTER– IV

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26EE412	Project Work	EEC	0	0	24	24	12	60	40
			TOTAL	**0**	**0**	**24**	**24**	**12**		

TOTAL: 91 CREDITS

NON-FUNCTIONAL ELECTIVE COURSES (NEC)

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BANE01	Design Thinking & Entrepreneurship	NEC	0	0	4	4	2	60	40
2	P26BANE02	Business Ethics	NEC	0	0	4	4	2	60	40

PROFESSIONAL ELECTIVE COURSES (PEC)

FUNCTIONAL SPECIALIZATIONS

STREAM / SPECIALIZATION: FINTECH

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BAFT01	Security Analysis and Portfolio Management	PEC	3	0	0	3	3	40	60
2	P26BAFT02	Financial Technology Services & Management	PEC	3	0	0	3	3	40	60
3	P26BAFT03	Banking and Financial Services	PEC	3	0	0	3	3	40	60
4	P26BAFT04	Financial Analytics	PEC	3	0	0	3	3	40	60
5	P26BAFT05	Block Chain and Cryptography	PEC	3	0	0	3	3	40	60
6	P26BAFT06	Financial Valuation	PEC	3	0	0	3	3		

STREAM / SPECIALIZATION: HUMAN RESOURCE MANAGEMENT

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BAHR01	Recruitment and Selection	PEC	3	0	0	3	3	40	60
2	P26BAHR02	Industrial Relations Labour Legislations	PEC	3	0	0	3	3	40	60
3	P26BAHR03	International Human Resource Management	PEC	3	0	0	3	3	40	60
4	P26BAHR04	HR Analytics	PEC	3	0	0	3	3	40	60
5	P26BAHR05	Reward and Compensation Management	PEC	3	0	0	3	3	40	60
6	P26BAHR06	Organizational Design, Change and Development	PEC	3	0	0	3	3	40	60

STREAM / SPECIALIZATION: MARKETING MANAGEMENT

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BAMM01	Digital Marketing	PEC	3	0	0	3	3	40	60
2	P26BAMM02	Sales and Distribution Management	PEC	3	0	0	3	3	40	60
3	P26BAMM03	Integrated Marketing Communication	PEC	3	0	0	3	3	40	60
4	P26BAMM04	Retail Marketing	PEC	3	0	0	3	3	40	60
5	P26BAMM05	Services Marketing	PEC	3	0	0	3	3	40	60
6	P26BAMM06	Marketing Metrics	PEC	3	0	0	3	3	40	60

STREAM / SPECIALIZATION: BUSINESS ANALYTICS

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BABA01	E Business Management	PEC	3	0	0	3	3	40	60
2	P26BABA02	Data Mining for Business Intelligence	PEC	3	0	0	3	3	40	60
3	P26BABA03	Social Media Web Analytics	PEC	3	0	0	3	3	40	60
4	P26BABA04	Artificial intelligence and machine learning for Managers	PEC	3	0	0	3	3	40	60
5	P26BABA05	Enterprise Resource Planning	PEC	3	0	0	3	3	40	60
6	P26BABA06	Business Analysis & IT Consulting	PEC	3	0	0	3	3	40	60

STREAM/SPECIALIZATION: OPERATIONS MANAGEMENT

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BAOM01	Supply Chain Management	PEC	3	0	0	3	3	40	60
2	P26BAOM02	Project Management	PEC	3	0	0	3	3	40	60
3	P26BAOM03	Product Management	PEC	3	0	0	3	3	40	60
4	P26BAOM04	Quality Management	PEC	3	0	0	3	3	40	60
5	P26BAOM05	Services Operations Management	PEC	3	0	0	3	3	40	60
6	P26BAOM06	Logistics Management	PEC	3	0	0	3	3	40	60

SECTORAL SPECIALIZATIONS

SECTORAL STREAM/SPECIALIZATION: HEALTHCARE MANAGEMENT

S. No.	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BAHC01	Materials Management & Logistics in Healthcare	PEC	3	0	0	3	3	40	60
2	P26BAHC02	Management of Healthcare Services	PEC	3	0	0	3	3	40	60
3	P26BAHC03	Health Insurance	PEC	3	0	0	3	3	40	60
4	P26BAHC04	Legal Aspects of Healthcare	PEC	3	0	0	3	3	40	60
5	P26BAHC05	International Healthcare Management	PEC	3	0	0	3	3	40	60
6	P26BAHC06	Medical Equipment Management	PEC	3	0	0	3	3	40	60
7	P26BAHC07	Medical Tourism	PEC	3	0	0	3	3	40	60
8	P26BAHC08	Medical Waste Management	PEC	3	0	0	3	3	40	60

SYLLABUS SEMESTER I

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA111	Statistics for Management	PCC	3	1	0	4	4	40	60
2	P26BA121	Managerial Economics	PCC	4	0	0	4	4	40	60
3	P26BA131	Management Concepts & Organizational Behavior	PCC	4	0	0	4	4	40	60
4	P26BA141	Legal Aspects of Business	PCC	4	0	0	4	4	40	60
5	P26BA151	Accounting for Managers	PCC	3	1	0	4	4	40	60
6	P26BA161	Operations Management	PCC	4	0	0	4	4	40	60
7	P26BA173	Business Communication	PCC	2	0	2	4	3	50	50
8		Non-Functional Elective	NEC	0	0	4	4	2	60	40
9	P26EE112	Essential Business Tools - I	EEC	0	0	4	4	2	100	-
			TOTAL	**24**	**2**	**10**	**36**	**31**		

Assessment Scheme

Sl. No	Course Type	L	T	P	C	CIA Weightage (Theory)				CIA	ESE		CIA (W)	ESE (W)	Min. Marks to Pass for 100	
						T1	A1	T2	A2	Prac	Th	Prac			ESE	Total
1	P26BA111	3	1	0	4	60	40	60	40	-	100	-	40	60	45	50
2	P26BA121	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
3	P26BA131	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
4	P26BA141	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
5	P26BA151	3	1	0	4	60	40	60	40	-	100	-	40	60	45	50
6	P26BA161	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
7	P26BA173	2	0	2	3	60	40	60	40	100	100	-	50	50	45	50
8	NEC	0	0	4	2	-	-	-	-	100	-	100	60	40	45	50

P26BA111	STATISTICS FOR MANAGEMENT	L	T	P	C
		3	1	0	4

COURSE OBJECTIVES:
- To understand the fundamental concepts of statistics and their application in managerial decision-making.
- To develop the ability to collect, organize, present, and analyze business data using appropriate statistical tools.
- To apply descriptive and inferential statistical techniques for solving real-world business problems.
- To interpret statistical results effectively and use them for forecasting and strategic planning.
- To enhance analytical and critical thinking skills through the application of statistical methods in management scenarios.

UNIT I: INTRODUCTION (9+3)
Basic definitions and rules for probability, conditional probability independence of events, Bayes theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions.

UNIT II: SAMPLING DISTRIBUTION AND ESTIMATION (9+3)
Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques. Estimation: Point and Interval estimates for population parameters of large sample and small samples, determining the sample size.

UNIT III: TESTING OF HYPOTHESIS - PARAMETIRC TESTS (9+3)
Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test), F-test for two sample standard deviations. ANOVA one and two way

UNIT IV: NON-PARAMETRIC TESTS (9+3)
Chi-square test for single sample standard deviation. Chi-square tests for independence of attributes and goodness of fit. Sign test for paired data. Rank sum test. Kolmogorov-Smirnov – test for goodness of fit, comparing two populations. Mann – Whitney U test and Kruskal Wallis test. One sample run test.

UNIT V: CORRELATION AND REGRESSION (9+3)
Correlation – Coefficient of Determination – Rank Correlation – Regression – Estimation of Regression line – Method of Least Squares – Standard Error of estimate.

TOTAL: 60 PERIODS

Learning Resources

1. Richard I. Levin, David S. Rubin, Masood H. Siddiqui, Sanjay Rastogi, Statistics for Management, Pearson Education, 8th Edition, 2017.
2. Prem. S. Mann, Introductory Statistics, Wiley Publications, 9th Edition, 2015.
3. T. N. Srivastava and Shailaja Rego, Statistics for Management, Tata McGraw Hill, 3rd Edition 2017.
4. Ken Black, Applied Business Statistics, 7th Edition, Wiley India Edition, 2012.
5. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran, Statistics for business and economics, 13th edition, Thomson (South – Western) Asia, Singapore, 2016

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Course Outcomes:

At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Apply probability theory for objective solutions in business decision making	Apply
CO2	Solve business problems using sampling distribution and estimation	Apply
CO3	Apply statistical techniques to data sets, and correctly interpret the results.	Apply
CO4	Apply non-parametric test for drawing meaningful conclusions	Apply
CO5	Apply the statistical techniques in Real time Business	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	2
CO2	3	3	1	1	3
CO3	3	3	1	1	2
CO4	3	3	1	1	1
CO5	3	3	1	2	2
Average	**3**	**3**	**1**	**1.2**	**2**

P26BA121	MANAGERIAL ECONOMICS	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:

- To apply microeconomic principles to analyze market forces, consumer behavior, and firm decision-making.
- To analyze the principles of demand and supply including demand forecasting, elasticity, and their applications in managerial decision-making
- To understand macroeconomic indicators, economic policies, and their impact on businesses and the overall economy.
- To explore the role of fiscal and monetary policies in managing the economy, with emphasis on national income measurement, banking systems, and international financial mechanisms.
- To interpret economic data and forecasts to make informed business decisions.

UNIT – I : INTRODUCTION OF ECONOMICS (12)

Definition, Nature, Scope & Limitation, Economics as an art or Science, Relevance of Economics in Business Management, Nature and Scope of Managerial Economics, its relationship with other subjects.

UNIT – II : DEMAND & SUPPLY THEORY (12)

Meaning of Demand, Demand theory and objectives, Demand analysis, Demand schedule, Demand Curve, Laws of Demand, Elasticity of Demand Types & Measurement, Supply Analysis, Demand Forecasting.

UNIT – III : MARKET THEORY (12)

Market analysis-Nature of market, Types of markets and their characteristics, Pricing under different market structures - Perfect, Monopoly, oligopoly and Monopolistic competition.

UNIT – IV: FISCAL & MONETARY POLICY (12)

National Income: Concepts and Measurements, instruments of fiscal policy, Tools of monetary policy, Theory of Banking, Theory of International Banking.

UNIT – V FORECASTING (12)

Economic Growth and Development, Business Cycle, The balance of payments, Inflation.

TOTAL: 60 PERIODS

Learning Resources

1. Paul A. Samuelson, William D. Nordhaus, Sudip Chaudhuri and Anindya Sen, Economics, 20th edition, Tata McGraw Hill, New Delhi, 2019
2. Dominick Salvatore, International Economics: Trade and Finance, 13ed, ISV, Wiley Publication, 2021
3. N. Gregory Mankiw, Principles of Macroeconomics, 8th Edition Cengage Learning India Pvt. Ltd., 2017
4. Michael Parkin, Microecnomics, Global Edition, 14th Edition, Published by Pearson, Emeritus of University of Western Ontario, 2023.
5. Jeffrey Perloff, Microeconomics, Global Edition May 2023
6. Michael R Baye and Jeferey T Prince, Managerial Economics and Business

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Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the definition, Nature, Scope & Limitation of Economics, Relevance of Economics in Business Management.	Understand
CO2	Explain the demand and supply theory and Forecasting.	Understand
CO3	Elaborate various Market analysis, Pricing under different market structures	Understand
CO4	Describe National Income, Concepts and Measurements, instruments of fiscal policy.	Apply
CO5	Illustrate the importance of Economic Growth and Development, Business Cycle, The balance of payments, Inflation	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	1	2	1	2	1
CO3	1	2	1	2	3
CO4	3	1	1	2	1
CO5	2	2	1	1	2
Average	**2**	**1.8**	**1**	**1.8**	**1.8**

P26BA131	MANAGEMENT CONCEPTS AND ORGANIZATIONAL BEHAVIOUR	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:

- To provide foundational knowledge of organizational behavior
- To analyze group and team dynamics including leadership styles, power and politics.
- To understand the evolution and core principles of management theories.
- To develop planning and organizing competencies through a study of planning processes, decision-making techniques, organizational structures, delegation, and control mechanisms
- To examine emerging trends in organizational behavior including international management styles, diversity management and the impact of globalization on workforce productivity.

UNIT I: INDIVIDUAL BEHAVIOUR (12)

Meaning of Organizational behavior, contributing disciplines, importance of organizational behavior, Perception and Learning - Personality and Individual Differences - Motivation theory – Maslow's Hierarchy Theory and Job Performance- Values, Attitudes and Beliefs - Communication Types-Process - Barriers - Making Communication Effective – Case study

UNIT II: GROUP BEHAVIOUR (12)

Groups and Teams: Definition, Difference between groups and teams, Stages of Group Development, Group Cohesiveness, Types of teams, Group Dynamics - Leadership - Styles - Approaches - Power and Politics - Organisational Structure - Organisational Climate and Culture, Conflict: concept, sources, Types, Stages of conflict, Management of conflict Organisational Change and Development – Case study

UNIT III: NATURE AND THEORIES OF MANAGEMENT (12)

Evolution of management Thought-Classical, Behavioral and Management Science Approaches Management - meaning, levels, management as an art or science, Managerial functions and Roles, Evolution of Management Theory- Classical era- Contribution of F.W.Taylor, Henri Fayol & contingency approach Managerial Skills – Case study

UNIT IV: PLANNING AND ORGANISING (12)

Planning - Steps in Planning Process - Scope and Limitations - Forecasting and types of Planning - Characteristics of a sound Plan - Management by Objectives (MBO) - Decision Making - Types, Techniques and Processes. Organisation Structure and Design - Authority and Responsibility Relationships - Delegation of Authority and Decentralisation - Impact of Technology on Organisational design - Mechanistic vs Adoptive Structures - Formal and Informal Organisation.Control: meaning, function, Process and types of Control.

UNIT V: EMERGING ASPECTS OF ORGANIZATIONAL BEHAVIOUR (12)

Comparative Management Style and approach - Japanese Management Practices Organizational Creativity and Innovation - Organizational behavior across cultures - Conditions affecting cross cultural organizational operations, Managing International Workforce, Productivity and cultural contingencies, Cross cultural communication, Management of Diversity – Case Study.

TOTAL: 60 PERIODS

Learning Resources

1. Harold Koontz and Heinz Weihrich and Mark V. Cannice, Essentials of Management, 11th Edition, 2020.
2. Andrew J. Dubrin, Essentials of Management, Thomson Southwestern, 11th edition, 2020.
3. Samuel C. Certo and S. Trevis Certo, Modern Management: Concepts and Skills, Pearson education, 15th edition, 2018.
4. Harold Koontz and Heinz Weihrich, Essentials of Management: An International, Innovation, And Leadership Perspective, 11th edition, Tata McGraw-Hill Education, 2020
5. Charles W.L Hill and Steven L McShane, Principles of Management, McGraw Hill Education, Special Indian Edition, 2017.
6. Dr. S. C. Saksena, Dr. Gaurav Sankalp, Management and Organisational Behavior, Sahitya Bhawan Publications, 2018.
7. Dr. Kaushik Banerjee, Mr. Sudipta Adhikary, Organisational Behavior, Redshine Publication, 2023.
8. Stephen P. Robbins, David De Cenzo and Mary Coulter, Fundamentals of Management, Prentice Hall of India, 10th edition 2016.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain various management concepts and skills required in the business world.	Understand
CO2	Illustrate various functions of management in a real time management context	Apply
CO3	Describe the complexities associated with management of individual behavior in the organizations	Understand
CO4	Classify the skillset to have manage group behaviour in Organizations	Understand
CO5	Explain the current trends in managing organizational behaviour	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	1	3
CO3	2	2	1	1	2
CO4	3	2	3	1	2
CO5	2	2	2	2	2
Average	**2.6**	**2.2**	**2**	**1.4**	**2.2**

P26BA141	LEGAL ASPECTS OF BUSINESS	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:

- To impart foundational knowledge of the Indian Contract Act, 1872
- To develop an understanding of commercial laws such as the Sale of Goods Act, 1930 and the Negotiable Instruments Act, 1881
- To familiarize students with company law and financial regulations, including the Companies Acts of 1956 and 2013 and the Foreign Exchange Management Act (FEMA) 1999
- To enable students to understand consumer rights and intellectual property laws.
- To introduce legal frameworks related to information technology and transparency.

UNIT I - THE INDIAN CONTRACT ACT 1872 (12)

Definition of contract - Essentials of a valid contract - Types of contracts - Formation of a contract, Performance of contracts - Breach of contract and its remedies - Quasi Contracts - Contracts of Indemnity - Meaning - Nature - Right of Indemnity Holder and Indemnifier - Contracts of Guarantee - Types of Guarantee - Bailment and Pledge.

UNIT II - THE SALE OF GOODS ACT 1930 & NEGOTIABLE INSTRUMENT ACT 1881 (12)

Sales contract Goods: Meaning and Classifications - Transfer of title and risk of loss - Conditions and Warranties in sales contract - Performance of sales contracts - Conditional sales and rights of an unpaid seller. Nature and requisites of negotiable instruments. Types of negotiable instruments, Holder in due course, special rules for Cheque and drafts, discharge of negotiable instruments.

UNIT III - THE COMPANIES ACT 1956 & 2013 AND FEMA 1999 (12)

Meaning and Definition of Company - Major Principles - Nature and Types - Formation: Memorandum and Articles of Association, Prospectus and other Constituent Documents - Directors Powers and Duties - Mergers and Amalgamation - Winding Up of companies - Introduction to FEMA 1999 - Major Concepts - Important Provisions.

UNIT IV - THE CONSUMER PROTECTION ACT 2019 & INTELLECTUAL PROPERTY RIGHTS (12)

Salient features - Aim and Important Definitions - Meaning of Consumer Dispute - Unfair Trade Practices - Rights of Consumers -Three tier Grievance Redressal Machinery - Introduction to IPR- Copyright - Infringement of copyrights - Trademark - Patents - Filing - Rights from Patents.

UNIT V - THE INFORMATION TECHNOLOGY ACT 2000 AND THE RIGHT TO INFORMATION ACT 2005 (12)

The Information Technology Act - 2000 - Aims and objectives and 2002 - Digital Signature - Digital Signature Certificate - Electronic Governance - Electronic Records - Certifying Authorities- Penalty and Adjudication - Introduction to Cyber Laws - Cybercrimes - RTI Act 2005 - Applicability of the Act - Mechanism and Scope of the Act - Important provisions.

TOTAL: 60 PERIODS

Learning Resources

1. N. D. Kapoor, Elements of Mercantile Law, Sultan Chand and Company, India, 39th edition,2024.
2. P. K. Goel, Business Law for Managers, Biztantatara Publishers, India, 2nd Edition, 2022.
3. Akhileshwar Pathak, Legal Aspects of Business, Tata McGraw Hill, 8th Edition 2022.

4. K. Ramachandra and B. Chandrasekara, Legal Aspects of Business – Text and Cases, Himalaya Publishing, 2nd Edition, 2024.
5. Taxmann, GST Manual with GST Law Guide & Digest of Landmark Rulings, 26th Edition, 2025
6. P. P. S. Gogna, Mercantile Law, S. Chand & Co. Ltd., India, Fourth Edition, 2015.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the fundamental legal principles in developing various contracts in the business world.	Understand
CO2	Illustrate the legal framework related to goods in commercial transactions.	Understand
CO3	Explain the common forms of business associations and legal environment in which business operates.	Apply
CO4	Describe the role of consumer rights and solving issues through legal procedures.	Understand
CO5	Explain the concept of cyber laws in the modern business era and right of information.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	3	2
CO2	2	2	1	3	2
CO3	2	2	1	3	2
CO4	3	2	1	3	1
CO5	3	3	2	3	2
Average	**2.6**	**2.2**	**1.2**	**3**	**1.8**

P25BA151	ACCOUNTING FOR MANAGERS	L	T	P	C
		3	1	0	4

COURSE OBJECTIVES:

- To provide a comprehensive understanding of financial, cost, and management accounting
- To develop analytical skills in interpreting financial statements
- To introduce the principles and methods of cost accounting, including cost classification, job costing, process costing, activity-based costing, and target costing techniques.
- To equip students with the tools of marginal costing and decision-making.
- To enhance planning and control abilities through budgeting and variance analysis.

UNIT I: FINAL ACCOUNTS (9+3)
Introduction to Financial, Cost and Management Accounting – Generally accepted accounting principles–Preparation of Journal, Ledger and Trial Balance Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet.

UNIT II: ANALYSIS OF FINANCIAL STATEMENTS (9+3)
Financial ratio analysis, Interpretation of ratio for financial decisions – Comparative statements - common size statements. Cash flow (as per Accounting Standard 3) – Trend Analysis

UNIT III: COST ACCOUNTING (9+3)
Cost Accounts – Classification of costs – Job cost sheet – Job order costing – Process costing – (excluding Interdepartmental Transfers and equivalent production) – Joint and By Product Costing – Activity Based Costing, Target Costing.

UNIT IV: MARGINAL COSTING (9+3)
Marginal Costing and profit planning – Cost, Volume, Profit Analysis – Break Even Analysis – Decision making problems -Make or Buy decisions -Determination of sales mix - Add or drop products -Expand or contract.

UNIT V: BUDGETING AND VARIANCE ANALYSIS (9+3)
Budgetary Control – Sales, Production, fixed and flexible budget – Standard costing and Variance Analysis – (excluding overhead costing).

TOTAL: 60 PERIODS

Learning Resources

1. R. Narayanaswamy, Financial Accounting, PHI, sixth edition, 2017.
2. M.Y. Khan & P.K. Jain, Management Accounting, Tata McGraw Hill, 8 th edtion, 2018.
3. Pillai, R.S.N. & Bagvathi, Cost Accounting, New Delhi : S.Chand Publishing, 11th Edition, 2019
4. N.M. Singhvi, Ruzbeh J. Bodhanwala, Management Accounting – Text and cases,3 rd edition PHI Learning, 2018.
5. Jan Williams, Susan Haka, Mark S Bettner, Joseph V Carcello, Financial and Managerial Accounting - The basis for business Decisions, 18th edition, Tata McGraw Hill Publishers, 2017.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain accounting principles and standards to record and interpret financial transactions.	Understand
CO2	Interpret financial statements to assess a company's financial performance and make informed business decisions.	Apply
CO3	Illustrate the cost accounting techniques in Business.	Apply
CO4	Describe the management accounting techniques for decision making.	Apply
CO5	Develop budgets and financial forecasts for business planning and control.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**1.6**	**3**	**1.2**	**1.2**	**1.8**

P26BA161	OPERATIONS MANAGEMENT	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:

- To provide a foundational understanding of operations management.
- To develop the ability to plan and manage operations and value chains.
- To introduce process analysis and improvement tools, including lean principles, Six Sigma methodologies, root cause analysis, and continuous process optimization.
- To equip students with knowledge of supply chain management.
- To understand quality management systems and philosophies, including Total Quality Management (TQM), quality tools and certifications, Lean and Just-in-Time (JIT) approaches

UNIT I: INTRODUCTION TO OPERATIONS MANAGEMENT (12)

Operations Management- Nature, Importance, historical development, transformation processes, differences between services and goods, a system perspective, functions, challenges, current priorities, recent trends. Operations Strategy - Strategic fit, framework. Productivity; World-class manufacturing practices

UNIT II: OPERATIONS AND THE VALUE CHAIN (12)

Capacity Planning -Long range, Types, Developing capacity alternatives, tools for capacity planning. Facility Location - Theories, Steps in Selection, Location Models. Sourcing and procurement - Strategic sourcing, make or buy decision, procurement process, managing vendors

UNIT III: PROCESS ANALYSIS & IMPROVEMENT (12)

Introduction to Process Analysis and Improvement - Process Mapping Techniques and Tools - Lean Manufacturing Principles and Tools - Six Sigma Methodology: Overview and Key Concepts - Value Stream Mapping and Waste Reduction - Root Cause Analysis and Problem Solving Techniques - Process Control and Measurement Techniques - Design for Six Sigma (DFSS) and Process Optimization - Case Studies in Process Improvement and Best Practices.

UNIT IV: SUPPLY CHAIN MANAGEMENT (12)

Introduction to Supply Chain Management - Procurement and Sourcing Strategies - Logistics and Transportation Management - Inventory Management and Control Techniques - Demand Forecasting and Planning - Supplier Relationship Management - Distribution and Warehousing Systems - Risk Management in Supply Chains - Sustainability and Ethics in Supply Chain Operations.

UNIT V: QUALITY MANAGEMENT (12)

Definitions of quality, The Quality revolution, quality gurus; TQM philosophies; Quality management tools, certification and awards, Lean Management - philosophy, elements of JIT Manufacturing, Continuous Improvement.

TOTAL: 60 PERIODS

Learning Resources

1. Jay Heizer, Barry Render Operations Management (12th). Pearson Education, 2017.
2. Lee J. Krajewski, Manoj K Malhothra, Operations Management, Pearson Education, 14th edition, 2024.
3. Cecil C. Bozarth, Robert B. Handfield, Introduction to Operations and Supply Chain Management, Pearson, 5th Edition, 2019.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concept of operation management to make business decisions.	Apply
CO2	Explain the capacity planning, strategic sourcing and procurement in organizations.	Understand
CO3	Elaborate the operational processes using tools and techniques like process mapping, lean manufacturing, and six sigma.	Apply
CO4	Describe the principles of supply chain management, including procurement, logistics, and inventory management.	Understand
CO5	Illustrate the quality management principles and tools to ensure product and service quality.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	2
CO2	3	2	2	2	2
CO3	3	3	2	1	1
CO4	2	3	2	2	2
CO5	3	2	2	1	2
Average	**2.6**	**2.4**	**1.8**	**1.6**	**1.8**

P26BA173	BUSINESS COMMUNICATION	L	T	P	C
		2	0	2	3

COURSE OBJECTIVES:
- To develop a strong foundation in the principles and types of business communication.
- To enhance business writing skills through the preparation of various types of professional documents such as business letters, resumes, job applications, proposals, emails, and quotations.
- To equip students with the techniques for delivering effective presentations, including the strategic use of audio-visual aids and modern technologies like Artificial Intelligence (AI).
- To train students in interview skills and group discussions.
- To provide the skills necessary for professional report writing.

UNIT I: INTRODUCTION AND TYPES OF BUSINESS COMMUNICATION (6)
Introduction to communication - Nature and Importance of Business Communication - Levels of communication - Tools and Networks of Communication - Barriers in Communication - Organisational and Personal goals - Strategies for improving organizational communication - Psychology of communication - Role of mind in communication.

UNIT II: BUSINESS COMMUNICATION WRITING MODELS AND TOOLS (6)
Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, Maintaining a Diary, Resume/CV, job application letters, proposals - Business letters – Quotation letter – Email writing

UNIT III: EFFECTIVE PRESENTATIONS (6)
Principles of Effective Presentations, Principles governing the use of audio visual media - Use of AI in enhancing presentations

UNIT IV: INTERVIEW SKILLS (6)
Mastering the art of giving interviews in - selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting - Group discussion – Reading/Listening skills

UNIT V: REPORT WRITING (6)
Objectives of report, types of report, Report Planning, Types of Reports, developing an outline, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Executive Summary, List of Illustration, Report Writing - Tender notice – Memorandum

TOTAL: 30 PERIODS

Practical Exercises: 30 Periods

1. Prepare a meeting or call to the stakeholders using Verbal & Non – Verbal Communication.
2. Present a proposal for a new project to a client who is from a different country, and English is not their first language.
3. Prepare and present a proposal for a new product or service to a client using AIDA Model.
4. Prepare and present a performance review for a colleague using STAR Model.
5. Prepare a presentation to pitch a new product to a group of clients.
6. Prepare a communication strategy for an upcoming product launch, and you need to decide which audio-visual media will be most effective.
7. Prepare an interview for a business development position in a growing tech company.

8. Conduct an interview for a marketing position at your company.
9. Prepare a memo to announce a change in the company's work-from-home policy.
10. Prepare an informational report to update management on the performance of a new software system implemented within the company.

Learning Resources

1. P. P. Chaturvedi and Mukesh Chaturvedi, Business Communication, Pearson Edition, 5th Edition,2024.
2. K. K. Sinha, Ruchi Sehgal Mohandra, Business Communication, Taxmann Publication, 5^{th} edition, 2023.
3. Pooja Khanna, Business Communication, S. Chand Publications, 2022.
4. Meenakshi Raman, Prakash Singh, Business Communication, Oxford Publication, 2^{nd} Edition, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Practice the good managerial communication skills	Apply
CO2	Articulate the different forms of written communication in business	Apply
CO3	Develop good presentation skills	Apply
CO4	Develop the interview skills	Apply
CO5	Prepare the business reports	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	1	2	3	1	2
CO2	1	1	2	1	3
CO3	1	2	1	1	1
CO4	1	1	1	1	2
CO5	1	2	1	1	2
Average	**1**	**1.6**	**1.6**	**1**	**2**

P26EE112	ESSENTIAL BUSINESS TOOLS – I (Excel, AI & Canva)	L	T	P	C
		0	0	4	2

COURSE OBJECTIVES:

Enables student to

- Develop Advanced Data Analysis Skills Using Excel.
- Enable students to design automated budgeting and expense tracking sheets with conditional formatting and formulas to enhance financial decision-making
- Create Impactful Business Content Using AI and Design Tools
- Have hands-on experience on data analysis for business modeling.
- Be Proficient in using Canva's features to produce professional-quality designs.

Areas	Exp. No	Duration	Title of the Exercise
MS Excel	1	4	Create a sales report using PivotTables and charts to analyze monthly trends
	2	4	Use Excel formulas to clean and organize a dataset, applying VLOOKUP and IF functions.
	3	4	Automate expense tracking by designing a budgeting sheet with conditional formatting
Data Analytics Using MS Excel	4	4	Design a relational database in Excel using multiple sheets to represent different tables.
	5	4	Implement queries using Excel filters, advanced functions, and PivotTables to extract relevant insights.
	6	4	Perform operations such as creating, dropping, and modifying table structures using Excel functions and Power Query.
Prompt Engineering	7	4	Experiment with ChatGPT, Gemini, and Copilot to refine prompts for generating business strategy insights.
	8	4	Use AI tools to generate content for a PPT presentation on a trending business topic.
	9	4	Enhance video creation with AI-generated scripts and subtitles, testing different prompt formats for better output.
AI for Business Analytics	10	4	Use AI tools to analyze raw business data and generate an automated summary report.
	11	4	Apply AI-driven recommendations to optimize business decision-making processes.
	12	4	Use AI-based analytics tools to evaluate a business case study and generate strategic recommendations.
Designing Tools	13	4	Create a professional poster or social media post using Canva's design templates.
	14	4	Design an AI-assisted marketing campaign using the newest Canva updates.
	15	4	Create engaging presentations, branded content, and promotional materials using Canva's latest features.
			TOTAL: 60 PERIODS

Learning Resources

1. Joan Lambert, "Microsoft Office 365 step by Step", Microsoft Press, 2023.
2. Randy Nordell, "Microsoft Office 365 in practice", Mcgraw Hill Education, 4th Edition,2022.

3. Richard Dorsey , “Artificial Intelligence for Business Analytics: Algorithms, Platforms, and Application Scenarios”, Tech Press, 2025.
4. Mary Jo Diepeven, “Artificial Intelligence with power BI – Take your data analytics skills to the next level by leveraging the AI Capabilities in power BI”, I Edition, Microsoft 2022.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the MS Excel and its feature	Apply
CO2	Describe how excel helps in Data Analytics	Apply
CO3	Explain about AI and its tools	Understand
CO4	Illustrate AI and its need for Business Reports	Apply
CO5	Explains CANVA and its feature	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	2
CO2	2	3	1	1	2
CO3	2	3	1	1	3
CO4	3	3	1	1	2
CO5	2	2	1	1	3
Average	**2.4**	**2.8**	**1**	**1**	**2.4**

Non-Functional Electives

P25BANE01	DESIGN THINKING AND ENTREPRENEURSHIP	L	T	P	C
		0	0	4	2

COURSE OBJECTIVES:

- To Develop an Entrepreneurial Mindset to Identify real-world problems and generate innovative business ideas using design thinking.
- To apply lean startup principles by validating ideas, creating a business model, and refining solutions through feedback and market testing.
- To enhance problem-solving skills, conduct user research, frame hypotheses, prototype, and develop viable business solutions.
- To Improve Pitching and Presentation for Develop effective communication and storytelling skills to confidently present business ideas.
- To equip Foster Hands-on Learning for work on practical projects, maintain an E-log, and apply learning through experiments, field visits, and investor pitches.

Ex. No	Course Content
1	**Introduction to Design Thinking & Entrepreneurship** • Learn how to approach entrepreneurship with innovation and empathy while maintaining the Triple Bottom Line (People, Planet, Profit). • Maintain an E-log to record inspirations, progress, and business problem identification.
2	**Brainstorming & Problem Identification** • Use techniques like Divergent Thinking and Empathy Tools to identify pain points and refine ideas using the 2x2 Matrix. • Analyse real-world case studies like Intuit's Innovation Catalyst.
3	**Business Model & Lean Startup Methodology** • Understand Lean Startup principles and develop ideas using the Business Model Canvas (BMC). • Form teams and make initial pitches using decision tools like NEXT.
4	**Analysing & Validating the Problem** • Frame hypotheses, conduct SWOT analysis, and validate problems through field research and user journey mapping. • Identify key assumptions for testing.
5	**Prototyping & Concept Development** • Develop Minimum Viable Products (MVPs) or prototypes, map concepts, and conduct real-time testing. • Record learnings in an E-log for continuous improvement.
6	**Iteration & Learning from Feedback** • Implement the Build-Measure-Learn Loop to refine solutions. • Use metrics like NPS and Love Metrics to decide whether to pivot or persevere before the second pitch.
7	**Business Model Development** • Define key activities, resources, cost structures, and revenue streams. • Validate the business model through testing and iteration.
8	**Effective Pitching & Presentation Skills** • Learn to deliver powerful elevator pitches, avoid ineffective presentations, and compile insights for a compelling final pitch.
9	**Final Pitch to Investors/VCs**

	• Present a validated business idea and prototype to potential investors, demonstrating market potential, scalability, and funding requirements.
10	**Course Wrap-Up & Reflection** • Discuss key entrepreneurial challenges, reflect on lessons learned, and celebrate progress with final insights.
	TOTAL: 60 PERIODS

Learning Resources

1. Pavan Soni, Design Your Thinking: The Mindsets, Toolsets, and Skill Sets for Creative Problem-solving, Penguin Random House India Private Limited, 2020
2. R. D. Hisrich, Entrepreneurship, Tata McGraw Hill, New Delhi, 12th edition, 2023.
3. Gasparini, Andrea. "Perspective and use of empathy in design thinking." In ACHI, the Eight International Conference on Advances in Computer-Human Interactions, pp. 49-54. 2015.
4. Priyanka Madnani, From Idea to Market: A Complete Guide to Startup Validation Paperback –Import, Notion Press Media Pvt Ltd, 12 May 2023.
5. Rajeev Roy, Entrepreneurship, Oxford University Press, 3rd Edition, 2020.
6. Jeanne Liedtka, Why design thinking works, Harvard Business Review, October 2018

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome**	**Knowledge Level**
CO1	Explain the significance and stages of the design thinking process.	Understand
CO2	Apply empathy tools to gather insights about user needs and challenges.	Apply
CO3	Analyze clear problem statements, frame and test hypotheses, and utilize analytical tools to understand user experiences.	Analyze
CO4	Generate innovative ideas through brainstorming and mind mapping, and select viable solutions using the double diamond approach	Create
CO5	Design and create various prototypes, and test these prototypes to refine their solutions, demonstrating effective human factor analysis.	Analyze

Course Articulation Matrix

CO-PO Mapping					
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	1.6	3	1.2	1.2	1.8

P25BANE02	BUSINESS ETHICS (SEMINAR)	L	T	P	C
		0	0	4	2

COURSE OBJECTIVES:

- To enable the learners to have exposure on business ethics and ethical business perspectives.
- To develop an understanding of individual and organizational ethical standards, values, and culture.
- To examine ethical theories and frameworks.
- To explore the role of leadership and organizational structures.
- To evaluate the ethical implications of business practices.

Note:
The following is the list of topics suggested for preparation and presentation by students twice during the semester. This will be evaluated by the faculty member(s) handling the course and the final marks consolidated at the end of the semester. No end semester examination is required for this course.

S. No.	Topics
1	Individual Culture and Ethics
2	Ethical codes of conduct and value Systems
3	Loyalty and Ethical Behaviour, Ethical decision making
4	Ethical business issues and solutions
5	Corporate Social Responsibilities of Business
6	Workplace Ethics and Employee Rights
7	Role of Leadership in Promoting Ethical Culture
8	Environmental Ethics and Sustainable Business Practices
9	Corporate Governance and Ethical Accountability
10	Ethics in Marketing and Advertising
	TOTAL: 60 PERIODS

Learning Resources

1. A C Fernando, Business Ethics: An Indian Perspective, Third Edition, K P Muralidheeran, E K Satheesh, Pearson, 2019.
2. Velasquez , Business Ethics: Concepts and Cases, , Pearson Education India, 2016.
3. Fernando, Business Ethics and Corporate Governance, Second Edition, Pearson, 2018

Course Outcome

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome**	**Knowledge Level**
CO1	Examine the issues of business ethics and offer solutions ethical perspectives	Apply
CO2	Apply the basic concepts of Indian ethos and value systems at work.	Apply
CO3	Practice knowledge of corporate social responsibility (CSR) and sustainable business practices.	Apply
CO4	Apply ethical frameworks to decision-making processes in real-world business scenarios.	Apply
CO5	Act Socially effective in undertaking business responsibilities	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**1.6**	**3**	**1.2**	**1.2**	**1.8**

SYLLABUS SEMESTER II

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA211	Launching New Venture	PCC	3	0	0	4	3	40	60
2	P26BA221	Financial Management	PCC	3	1	0	4	4	40	60
3	P26BA231	Marketing Management	PCC	4	0	0	4	4	40	60
4	P26BA241	Human Resource Management	PCC	4	0	0	4	4	40	60
5	P26BA251	Quantitative Techniques for Managers	PCC	3	1	0	4	4	40	60
6	P26BA261	Business Research Methods	PCC	4	0	0	4	4	40	60
7	P26BA271	Business Analytics	PCC	4	0	0	4	4	50	50
8	P26BA273	Advance Communication	PCC	3	0	2	5	4	60	40
9	P26EE212	Essential Business tools II	EEC	0	0	4	4	2	100	-
			TOTAL	**28**	**2**	**6**	**36**	**33**		

Assessment Scheme

Sl. No	Course Type	L	T	P	C	CIA Weightage (Theory)				CIA	ESE		CIA (W)	ESE (W)	Min. Marks to Pass for 100	
						T1	A1	T2	A2	Prac	Th	Prac			ESE	Total
1	P26BA211	3	0	0	4	60	40	60	40	-	100	-	40	60	45	50
2	P26BA221	3	1	0	4	60	40	60	40	-	100	-	40	60	45	50
3	P26BA231	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
4	P26BA241	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
5	P26BA251	3	1	0	4	60	40	60	40	-	100	-	40	60	45	50
6	P26BA261	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
7	P26BA271	4	0	0	4	60	40	60	40	-	100	-	40	60	45	50
8	P26BA273	3	0	2	5	60	40	60	40	100	100	-	50	50	45	50

P26BA211	LAUNCHING NEW VENTURES	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand and apply design thinking process for starting new business ventures.
- To develop and design workable business models.
- To understand and analyze the operations of the business/es and sustainability issues relating to it.
- To understand and apply skills for digitally transforming brick-and-mortar operations into technology-driven, scalable business platforms.
- To learn and use AI to automate, optimize, and grow business.

UNIT I: DESIGN THINKING AND PROBLEM DISCOVERY (9)

Design thinking – meaning and steps - revisited - Customer empathy & user research - Problem identification vs solution bias - Ideation techniques - Rapid prototyping & feedback loops

UNIT II: FUNDAMENTALS OF ENTREPRENEURSHIP - OFFLINE FOCUS (9)

Entrepreneurial mindset & opportunity recognition - Business Model Canvas - Value proposition design - Market research (local markets only) - Basics of pricing, cost, and profit - Legal basics (licenses, registration) – Central and State government schemes - Women and other related schemes - Angel and Venture capital, etc.

Unit III : REAL-WORLD OPERATIONS & SUSTAINABILITY - OFFLINE FOCUS (9)

Nature of brick-and-mortar businesses - Daily operations (procurement, inventory, staffing, sales) - Cost structures (fixed vs variable costs -marginal costing) - Customer experience in physical stores- Supply chain basics - Sustainability issues - Waste management - Energy usage - Ethical sourcing - Local vs global supply chains

UNIT IV: OFFLINE TO ONLINE - DIGITAL TRANSFORMATION (9)

Digital transformation - Omnichannel business models (offline + online) -Digital tools - POS systems - Inventory management software - E-commerce platforms (e.g., Shopify, Amazon) Digital payments (UPI, QR systems) - Customer relationship management (CRM) - Social media marketing -Logistics & last-mile delivery - Compare offline vs online business models

UNIT V: USING AI FOR BUSINESS AUTOMATION & GROWTH (9)

Introduction to AI in business - AI for Customer service (chatbots)-Sales forecasting-Inventory optimization-Personalized marketing-Tools and platforms -Data-driven decision making - Automation workflows - Use of innovation lab for prototype testing etc.

TOTAL: 45 PERIODS

Learning Resources

1. Rajagopal & Rajagopal, A. Artificial intelligence and entrepreneurship: Enhancing competitiveness and innovation in emerging markets. Palgrave Macmillan, 2026
2. Ries E. The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses. Crown Business, 2011
3. Sinha. S., & Huraimel, K. A. Reimagining businesses with AI. Wiley, 2021.
4. Burnett, S. The autonomous enterprise: Powered by AI. BCS Learning & Development Limited, 2022.
5. Meyer, M. ChatGPT for entrepreneurs: Revolutionize your business strategy with AI-powered insights and innovation. Marshall Meyer, 2024.
6. Carayannis, E. G., & Grigoroudis, E.,Handbook of research on artificial intelligence, innovation and entrepreneurship. Edward Elgar Publishing, 2023.

Course Outcomes:

At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Apply design thinking principles to identify customer problems and develop innovative solutions	Apply
CO2	Develop viable business models using entrepreneurial tools and offline market analysis	Create
CO3	Analyze real-world business operations, cost structures, and sustainability practices	Analyze
CO4	Design strategies for digital transformation of traditional businesses into scalable online models	Create
CO5	Apply AI tools for business automation, marketing, and decision-making	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	3	3	3	2	2
CO3	3	3	2	2	1
CO4	2	3	3	3	3
CO5	2	3	3	3	3
Average	**2.6**	**3**	**2.6**	**2.4**	**2.2**

P26BA221	FINANCIAL MANAGEMENT	L	T	P	C
		3	1	0	4

COURSE OBJECTIVES:

- To understand the fundamentals of financial management
- To equip students with analytical tools to evaluate investment projects
- To analyze capital structure decisions and understand various leverage concepts
- To evaluate dividend policies and theories, and assess their relevance in corporate finance decisions.
- To develop a practical understanding of working capital management

UNIT I: FOUNDATIONS OF FINANCE (9+3)

Introduction to finance- Financial Management – Nature, scope and functions of Finance, organization of financial functions, objectives of financial management, Major financial decisions – Time value of money - Concept of risk and return – Sources of Finance – Short Term – Long Term

UNIT II: INVESTMENT DECISIONS (9+3)

Capital Budgeting: Principles and techniques - Nature of capital budgeting- Identifying relevant cash flows - Evaluation Techniques: Payback, Accounting rate of return, Net Present Value, Internal Rate of Return, Profitability Index - Comparison of DCF techniques - Concept and measurement of cost of capital - Specific cost and overall cost of capital

UNIT III: FINANCING DECISIONS (9+3)

Leverages - Operating and Financial leverage – measurement of leverages – degree of Operating & Financial leverage – Combined leverage, EBIT – EPS Analysis- Indifference point. Capital structure – Theories – Net Income Approach, Net Operating Income Approach, MM Approach – Determinants of Capital structure.

UNIT IV: DIVIDEND DECISIONS (9+3)

Dividend decision- Issues in dividend decisions, Importance, Relevance & Irrelevance theories, Walter"s – Model, Gordon's model and MM model. – Factors determining dividend policy – Types of dividend policies – forms of dividend

UNIT V: WORKING CAPITAL MANAGEMENT (9+3)

Principles of working capital: Concepts, Needs, Determinants, issues and estimation of working capital - Receivables Management - Cash management - Working capital finance: Commercial paper, Company deposit, Trade credit, Bank finance.

TOTAL: 60 PERIODS

Learning Resources

1. I M. Pandey, Financial Management, Vikas Publishing House Pvt. Ltd., 12th edition, 2021.
2. M.Y. Khan and P.K. Jain Financial management, Text, Problems and cases Tata McGraw Hill, 8th edition, 2017.
3. Brigham, Ehrhardt, Financial Management Theory and Practice, 15th edition, Cengage Learning 2020.
4. Prasanna Chandra, Financial Management, 10th edition, Tata McGraw Hill, 2021.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the concepts of financial decision of an organization and the short-term and long-term sources of finance	Understand
CO2	Apply financial management principles to make investment decisions to manage and raise capital.	Apply
CO3	Analyze the concepts of financial and operating leverage, capital structure theories to determine optimal financing strategies for businesses.	Analyze
CO4	Analyze dividend theories and identify factors influencing dividend decisions.	Analyze
CO5	Apply the principles of working capital management, estimate working capital requirements, and analyze cash, receivables	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	2
CO3	2	3	2	1	2
CO4	2	2	2	1	2
CO5	2	2	1	1	1
Average	**2**	**2.6**	**1.4**	**1.2**	**1.8**

P26BA231	MARKETING MANAGEMENT	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:
- To provide a foundational understanding of marketing concepts and strategies.
- To develop the ability to formulate effective marketing strategies for consumer, industrial, and service sectors
- To equip students with the knowledge of marketing mix decisions, including product development, segmentation, targeting, positioning, branding, pricing, and distribution strategies.
- To analyze consumer and industrial buyer behavior, understand influencing factors, models of behavior, and apply customer relationship strategies
- To understand the role of marketing research and emerging trends, including digital marketing, social media, ethics in marketing, and customer-driven marketing practices in contemporary markets.

UNIT I: INTRODUCTION (12)
Defining Marketing − Core concepts in Marketing – Evolution of Marketing − Marketing Planning Process − Scanning Business environment: Internal and External − Value chain − Core Competencies– PESTEL − SWOT Analysis − Marketing interface with other functional areas - Marketing in global environment – International Marketing − Rural Marketing − Prospects and Challenges.

UNIT II: MARKETING STRATEGY (12)
Marketing strategy formulations – Key Drivers of Marketing Strategies - Strategies for Industrial Marketing – Consumer Marketing − Services marketing – Competition Analysis − Analysis of consumer and industrial markets − Marketing Plan Development − Strategic Marketing Mix components.

UNIT III: MARKETING MIX DECISIONS (12)
Product planning and development – Product life cycle – New product Development and Management –Defining Market Segmentation – Targeting and Positioning –Brand Positioning and Differentiation –Channel Management– Pricing Objectives, Policies and Methods.

UNIT IV: BUYER BEHAVIOUR (12)
Understanding Industrial and Consumer Buyer Behaviour − Influencing factors – Buyer Behaviour Models – Online buyer behaviour − Building and measuring customer satisfaction – Customer relationships management -Consumer Behaviour Analysis – Customer acquisition, Retaining, Defection − Creating Long Term Loyalty Relationships.

UNIT V: MARKETING RESEARCH & TRENDS IN MARKETING (12)
Marketing Information System – Marketing Research Process – Concepts and applications: Product – Advertising – Promotion – Consumer Behaviour – Retail research – Customer driven organizations -Cause related marketing − Ethics in marketing – Online marketing trends - Market Segmentation and Targeting- social media and digital marketing.

TOTAL: 60 PERIODS

Learning Resources

1. Philip T. Kotler and Kevin Lane Keller, Marketing Management, Prentice Hall India,17th Edition,2025.

2. Sasherlekar and R Krishnamoorthy, Marketing Management, Himalayan Publishing House, 15th Edition 2024.
3. Ramasamy, V.S, Namakumari, S, Marketing Management: Global Perspective Indian Context, Macmillan Education, New Delhi, 6th edition, 2018.
4. Dr. Anif Kumar, “Marketing Management”, Sahitya Bhawan Publications, 3rd Edition, 2023.
5. Philip T. Kotler ,Gary Armstrong, Sridhar Balasubramaniyam ”Principles of Marketing” Pearson Publication, 19th Edition, 2023.
6. Paul Baines, Chris Fill, Kelly Page, Marketing, Asian edition, Oxford University Press, 5th edition, 2019.

Course Outcome

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe contemporary marketing theories to the demands of business and management practice	Apply
CO2	Explain the marketing strategies for consumer and industrial marketing	Apply
CO3	Explain the choice of marketing mix elements and managing integrated marketing channels	Understand
CO4	Describe the nature of consumer buying behaviour	Understand
CO5	Explain the marketing research and new trends in the area of marketing	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	2
CO2	2	2	2	2	2
CO3	2	3	2	2	2
CO4	2	2	1	1	2
CO5	3	3	1	2	2
Average	**2.4**	**2.6**	**1.4**	**1.8**	**2**

P26BA241	HUMAN RESOURCE MANAGEMENT	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:
- To understand the evolution, concept, and nature of Human Resource Management
- To explore the process of Human Resource Planning
- To analyze various training and development methods
- To examine strategies for sustaining employee interest and motivation
- To evaluate employee performance and manage job changes effectively

UNIT I: PERSPECTIVES IN HUMAN RESOURCE MANAGEMENT (12)
Introduction - Evolution, concept, and nature of HRM - Functions of Management - Personnel aspects of a HR Manager's Job - Role and Challenges of human resource manager - trends in Human resource policies – Computer applications in human resource management – Human resource accounting and audit.

UNIT II: THE CONCEPT OF BEST FIT EMPLOYEE (12)
Importance of Human Resource Planning – Forecasting human resource requirement – matching supply - Internal and External sources- Organizational Attraction-. Recruitment, Selection, Induction and Socialization- Theories, Methods and Process.

UNIT III: TRAINING AND DEVELOPMENT (12)
Types of training methods –purpose- benefits- resistance. Executive development programme – Common practices - Benefits – Self-development – Talent Acquisition and Management.

UNIT IV: SUSTAINING EMPLOYEE INTEREST (12)
Compensation plan – Reward – Motivation – Application of theories of motivation – Career management – Mentoring - Development of mentor - Fringe benefits - Job Satisfaction, Employee Engagement-Performance Management.

UNIT V: PERFORMANCE EVALUATION AND CONTROL (12)
Method of performance evaluation – Feedback – Industry practices. Promotion, Demotion, Transfer and Separation, Employee Relations – Implication of job change. The control process – Importance – Methods – Requirement of effective control systems grievances – Causes – Implications – Redressal methods.

TOTAL: 60 PERIODS

Learning Resources

1. K. Aswathappa, Sadhna Dash Human Resource Management, 10th Edition, MC Graw Hill , 2023.
2. Gary Dessler, Biju Varkkey Human Resource Management, 17th Edition, Pearson Education,2023.
3. Stephen Tayor & Carol Woodhams. Managing Human Resource. 3rd Edition, CIPD - Kogan page. 2022
4. Jaquina Gilbert, Human Resource Management, Bibrant Publishing, 2020.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the various aspects of HRM	Understand
CO2	Describe human resource planning and recruitment	Understand
CO3	Explain the various training and development methods	Apply
CO4	Illustrate employee engagement techniques.	Understand
CO5	Explain various performance evaluation and control methods	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	2	2	2
CO2	3	1	2	2	2
CO3	2	1	2	1	2
CO4	3	1	2	1	2
CO5	2	2	1	1	1
Average	**2.6**	**1.2**	**1.8**	**1.4**	**1.8**

P26BA251	QUANTITATIVE TECHNIQUES FOR MANAGERS	L	T	P	C
		3	1	0	4

COURSE OBJECTIVES:

- Understand the basic concepts and significance of quantitative techniques in managerial decision-making.
- Apply mathematical and statistical models to analyze and solve business-related problems.
- Use optimization techniques such as linear programming, transportation, and assignment models for effective resource allocation.
- Analyze decision-making under risk and uncertainty using probability and decision theory.
- Interpret quantitative results and provide data-driven solutions for real-world business situations.

UNIT I: INTRODUCTION TO LINEAR PROGRAMMING (LP) (12)

Relevance of quantitative techniques in management decision making. Linear Programming formulation, solution by graphical and simplex methods (Primal - Penalty, Two Phase), Special cases. Sensitivity Analysis.

UNIT II: LINEAR PROGRAMMING EXTENSIONS (12)

Transportation Models (Minimising and Maximising Problems) – Balanced and unbalanced Problems – Initial Basic feasible solution by N-W Corner Rule, least cost and Vogel's approximation methods. Check for optimality. Solution by MODI / Stepping Stone method. Case of Degeneracy. Transhipment Models

Assignment Models (Minimising and Maximising Problems) – Balanced and Unbalanced Problems. Solution by Hungarian and Branch and Bound Algorithms. Travelling Salesman problem. Crew Assignment Models.

UNIT III: DECISION AND GAME THEORIES (12)

Decision making under risk – Decision trees – Decision making under uncertainty. Game Theory-Two-person Zero sum games-Saddle point, Dominance Rule, Convex Linear Combination (Averages), methods of matrices, graphical and LP solutions.

UNIT IV: INVENTORY AND REPLACEMENT MODELS (12)

Inventory Models – EOQ and EBQ Models (With and without shortages), Quantity Discount Models. Replacement Models-Individual replacement Models (With and without time value of money) – Group Replacement Models.

UNIT V: QUEUING THEORY AND SIMULATION (12)

Queuing Theory - single and multi-channel models – infinite number of customers and infinite calling source. Monte Carlo simulation – use of random numbers, application of simulation techniques

TOTAL: 60 PERIODS

Learning Resources

1. M. P. Gupta, R. B. Khanna, Quantitative Techniques for Decision Making, 4th Edition, PHI Learning, 2018.
2. S. P. Gupta, P. K. Gupta, Quantitative Techniques and Operations Research, Sultan Chand & Sons, 2022.
3. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, Jeffrey D. Camm, James J. Cochran, Quantitative Methods for Business, 13th Edition, Cengage Learning, 2016 (Reprint 2022).

4. R. B. Khanna, Quantitative Techniques for Managerial Decisions, 2nd Edition, PHI Learning, 2017.
5. Miguel Ángel Canela, Inés Alegre, Alberto Ibarra, Quantitative Methods for Management: A Practical Approach, Springer, 2019.

Course Outcomes:

At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Apply the Linear programming in **product mix decisions**	Applying
CO2	Prepare the Transportation and assignment in logistics and job allocation scenarios	Applying
CO3	Apply Game theory and heuristics of decision making in real time decisions	Applying
CO4	Solve problems in Inventory management and replacement models in manufacturing context	Applying
CO5	Apply the concept of Queuing and simulation in real time scenario optimization	Applying

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	2
CO2	3	3	1	2	2
CO3	3	3	1	1	1
CO4	2	3	1	1	3
CO5	2	3	1	1	2
Average	2.6	3	1	1.4	2

P26BA261	BUSINESS RESEARCH METHODS	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:

- To introduce students to the fundamentals of business research
- To enable students to design effective research studies by understanding various research designs, experimental setups, measurement tools, and concepts of validity and reliability.
- To equip students with the skills to collect both primary and secondary data using appropriate techniques and to develop sound sampling strategies and instruments.
- To provide students with knowledge of data preparation and the application of statistical tools for analyzing qualitative and quantitative data using advanced techniques and software.
- To develop students' ability to structure, write, and present professional research reports.

UNIT I: INTRODUCTION (12)

Business Research – Definition and Significance – the research process – Types of Research – Exploratory and causal Research – Theoretical and empirical Research – Cross –Sectional and time – series Research – Research questions / Problems – Research objectives – Research hypotheses – characteristics – Research in an evolutionary perspective – the role of theory in research.

UNIT II: RESEARCH DESIGN AND MEASUREMENT (12)

Research design – Definition – types of research design – exploratory and causal research design – Descriptive and experimental design – different types of experimental design – Validity of findings – internal and external validity – Variables in Research – Measurement and scaling – Different scales – Construction of instrument – Validity and Reliability of instrument.

UNIT III: DATA COLLECTION (12)

Types of data – Primary Vs Secondary data – Methods of primary data collection – Survey Vs Observation – Experiments – Construction of questionnaire and instrument – Types of Validity – Sampling plan – Sample size – determinants optimal sample size – sampling techniques – Sampling methods.

UNIT IV: DATA PREPARATION AND ANALYSIS (12)

Data Preparation – editing – Coding –Data entry – Validity of data – Qualitative Vs Quantitative data analyses – Applications of Bivariate and Multivariate statistical techniques, Factor analysis, Discriminant analysis, Cluster analysis, Multiple regression and Correlation, Multidimensional scaling – Conjoint Analysis – Application of statistical software for data analysis.

UNIT V: REPORT DESIGN, WRITING AND ETHICS IN BUSINESS RESEARCH (12)

Research report –Types – Contents of report – need for executive summary – chapterization – contents of chapter – report writing – the role of audience – readability – comprehension – tone – final proof – report format – title of the report – ethics in research – Ethics in research – Subjectivity and Objectivity in research.

TOTAL: 60 PERIODS

Learning Resources

1. Krishnasamy. O.R, and M. Ranganathan. Methodology of research in social science, Himalaya Publishing house, Mumbai, 2016.

2. Kothari. C.R. Research Methodology, New Age International (p) Ltd, New Delhi, 5th edition, 2023
3. Roger Bougie, Uma Sekaran, R., Research Methods for Business, 8ed , 2021.
4. Bajpai Naval, Business Research Methods, 2 edition, 11 July 2017.
5. Emma Bell, Alan Bryman, Bil Harley, Business Research Methods , 6th edition , 2022

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the fundamental concepts and significance of business research, including types, processes, and the role of theory	Understand
CO2	Design appropriate research methodologies by selecting suitable research designs, measurement scales, and validating research instruments.	Apply
CO3	Develop and implement data collection methods and sampling strategies using appropriate primary and secondary data sources.	Apply
CO4	Interpret research data using qualitative and quantitative statistical tools and software for informed decision-making.	Analyze
CO5	Create research reports with appropriate formatting	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	2
CO2	2	3	1	1	3
CO3	2	2	1	1	2
CO4	2	2	1	1	1
CO5	2	3	1	1	2
Average	**2.2**	**2.6**	**1**	**1**	**2**

P26BA271	BUSINESS ANALYTICS	L	T	P	C
		4	0	0	4

COURSE OBJECTIVES:
- Use business analytics for decision making.
- To apply the appropriate analytics and generate solutions.
- Model and analyse the business situation using analytics.

UNIT I: INTRODUCTION TO BUSINESS ANALYTICS (12)
Business Analytics - Terminologies, Process, Importance, Relationship with Organisational Decision Making, BA for Competitive Advantage.

UNIT II: MANAGING RESOURCES FOR BUSINESS ANALYTICS (12)
Managing BA Personnel, Data and Technology. Organisational Structures aligning BA. Managing Information policy, data quality and change in BA

UNIT III: DESCRIPTIVE ANALYTICS (12)
Introduction to Descriptive analytics - Visualising and Exploring Data - Descriptive Statistics - Sampling and Estimation - Probability Distribution for Descriptive Analytics - Analysis of Descriptive analytics

UNIT IV: PREDICTIVE ANALYTICS (12)
Introduction to Predictive analytics - Logic and Data Driven Models - Predictive Analysis Modeling and procedure - Data Mining for Predictive analytics. Analysis of Predictive analytics

UNIT V: PRESCRITIVE ANALYTICS (12)
Introduction to Prescriptive analytics - Prescriptive Modeling - Non-Linear Optimisation - Demonstrating Business Performance Improvement.

TOTAL: 60 PERIODS

Learning Resources

1. S. Christian Albright, Wayne L. Winston, Business Analytics: Data Analysis & Decision Making, 8th Edition, Cengage Learning, 2025.
2. Sanjiv Jaggia, Alison Kelly, Kevin Lertwachara, Leida Chen, Business Analytics: Communicating with Numbers, McGraw Hill, 2022.
3. Majid Nabavi, David L. Olson, Wesley S. Boyce, Introduction to Business Analytics, 2nd Edition, Business Expert Press, 2020.
4. Galit Shmueli, Peter C. Bruce, Nitin R. Patel, Data Mining for Business Analytics: Concepts, Techniques, and Applications, Wiley, 2019.
5. Isaac Baley, Laura Veldkamp, The Data Economy: Tools and Applications, Princeton University Press, 2025.
6. Foster Provost, Tom Fawcett, Data Science for Business: What You Need to Know about Data Mining

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Develop business analytics for decision making	Understand
CO2	Apply appropriate tool for the analytics scenario	Understand
CO3	Apply the descriptive analytics tools to solve business problems	Apply
CO4	Summarize the applications of predictive analytics in the process of business decision	Understand
CO5	Describe business process and improvement using prescriptive analytics	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	2	1	1	1
CO3	3	2	2	2	3
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**2**	**2.6**	**1.4**	**1.4**	**2**

P26BA283	ADVANCE COMMUNICATION	L	T	P	C
		3	0	2	4

COURSE OBJECTIVES:

- To develop creative and analytical thinking through communication activities.
- To master interdisciplinary and intercultural communication strategies.
- To enhance emotional intelligence and empathy in communication.
- To apply digital storytelling and media literacy for effective content creation.
- To build academic research communication and visual literacy skills.

UNIT I : CREATIVE & CRITICAL THINKING IN COMMUNICATION (8)

Lateral thinking, divergent vs. convergent thinking- Design thinking for communication – structured creativity: SCAMPER, mind-mapping– Logical fallacies and argumentation - Reflective thinking and journaling.

UNIT II: INTERCULTURAL & ETHICAL COMMUNICATION (10)

Edward Hall's theory High-context - Edward Hall's theory low-context cultures - Hofstede's cultural dimensions - Communication ethics and responsible speech - Gender and identity in communication - Case studies on global communication conflicts

UNIT III : EMOTIONAL INTELLIGENCE & EMPATHIC COMMUNICATION (9)

Daniel Goleman's EI framework in communication - Managing self and others' emotions in conversation - Active listening and deep questioning - Conflict resolution and negotiation - Building rapport and trust.

UNIT IV: DIGITAL STORYTELLING & MEDIA COMMUNICATION (8)

Narratives for digital spaces - Storyboarding and scripting for impact - Social media language, memes, and virality - Ethical communication in digital content - Using free tools for storytelling

UNIT V: ACADEMIC AND RESEARCH COMMUNICATION (10)

Abstracts, summaries, and paraphrasing techniques - Citation styles: APA, MLA, Chicago - Visual representation of data (infographics, research posters) -Communicating scientific and technical ideas to a general audience - Academic presentation vs. popular science presentation

TOTAL: 45 PERIODS

Practical Exercises: 30 Periods

1. Mind-Mapping a Creative Communication Solution
2. Self-Reflective Journal Entry
3. Cultural Simulation Role-Play
4. Case Study Discussion: Ethical Dilemma
5. Empathy Pair Activity
6. Storyboarding for a Short Digital Video
7. Podcast Script Writing
8. Designing an Infographic
9. Summary and Paraphrasing Drill
10. TED-Ed Style Talk (Script Only

Learning Resources

1. Martin, J. N., & Nakayama, T. K, Intercultural communication in contexts (8th ed.). McGraw Hill Education 2022.
2. Sorrells, K. Intercultural communication: Globalization and social justice (3rd ed.). SAGE Publications 2021.
3. Neuliep, J. W. Intercultural communication: A contextual approach (8th ed.). SAGE Publications 2020.
4. Remland, M., Landen, J., & Jones, S. L. Intercultural communication: A peacebuilding perspective (2nd ed.). Waveland Press 2023.
5. Spencer Oatey, H., & Lazidou, D. Making working relationships work: The TRIPS toolkit for handling relationship challenges and promoting rapport 2023.
6. Spencer Oatey, H., & Franklin, P. Global fitness for global people: How to manage and leverage cultural diversity at work 2022.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome**	**Knowledge Level**
CO1	Apply creative and critical thinking techniques in communication.	Apply
CO2	Communicate effectively across cultures and uphold ethical standards.	Apply
CO3	Exhibit emotional intelligence in high-stakes conversations.	Apply
CO4	Create compelling digital stories using accessible tools.	Apply
CO5	Translate academic and research ideas into audience-friendly formats.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	2	1	1	1
CO3	3	2	2	2	3
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**2**	**2.6**	**1.4**	**1.4**	**2**

P26EE212	ESSENTIAL BUSINESS TOOLS – II (Power BI)	L	T	P	C
		0	0	4	2

COURSE OBJECTIVES:
- To provide foundational knowledge of Power BI Desktop
- To work on complex data and make dashboards using Excel
- To work on Power BI which is a data analytics tool that makes map, charts and business dashboard and story.
- To design interactive reports and dashboards
- To develop practical data analysis skills through hands-on case studies.

Exp. No	Duration	Title of the Exercise
1	4	Explore the features of Power BI Desktop
2	4	Prepare & Load data
3	4	Develop the data model
4	4	Data Cleaning and Transformation
5	4	Perform DAX calculations
6	4	Design a report
7	4	Create a dashboard and perform data analysis
8	4	Presentation of a case study
9	4	Our first visual- The format tab - Understanding tables - Conditional formatting
10	4	The Pie Chart
11	4	All about the filter visual.
12	4	The filter pane for developers
13	4	Creating an index column
14	4	Workflow & more transformations.
15	4	Sales Dashboard Creation
		TOTAL: 60 PERIODS

Learning Resources

1. Sarin o Connor, "Microsoft Power BI, Dashbonds Step by Step", I Edition, Pearson, 2020.
2. Gerardus Blokdyk, "Microsoft Power BI, the ultimate step by step guide", 5 starcooks publication,2018.
3. Miguel Escobar & Ken Puls, "Master Your Data with Power Query in Excel and Power BI" , Holy Macro! Books, 2nd Edition, 2021.
4. Marco Russo & Alberto Ferrari, "The Definitive Guide to DAX", Microsoft Press, 2nd Edition, 2020

Course Outcomes

At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Import and transform raw data into usable formats using Power BI Desktop	Apply
CO2	Build relationships in a data model and perform calculations	Apply
CO3	Create visually appealing and interactive reports	Apply
CO4	Develop and publish dynamic dashboards	Apply
CO5	Analyze and present a business case study effectively	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	2
CO2	2	3	1	1	2
CO3	2	3	1	1	3
CO4	3	3	1	1	2
CO5	2	2	1	1	3
Average	**2.4**	**2.8**	**1**	**1**	**2.4**

SYLLABUS SEMESTER III

S. No.	Course Code	Course Name	Category	Periods Per Week			Total Contact Periods	Credits	Assessment	
				L	T	P			CIA	ESE
1	P26BA311	Strategic Management	PCC	4	0	0	4	4	40	60
2		Professional Elective I	PEC	3	0	0	3	3	40	60
3		Professional Elective II	PEC	3	0	0	3	3	40	60
4		Professional Elective III	PEC	3	0	0	3	3	40	60
5		Professional Elective IV	PEC	3	0	0	3	3	40	60
6		Professional Elective V	PEC	3	0	0	3	3	40	60
7		Professional Elective VI	PEC	3	0	0	3	3	50	50
8		Professional Elective VII	PEC	3	0	0	3	3	60	40
9		Professional Elective VIII	PEC	3	0	0	3	3	100	-
10	P26EE312	Summer Internship*	EEC	0	0	4	4	2	100	-
			TOTAL	**28**	**0**	**4**	**32**	**30**		

*Summer internship – minimum of 4 weeks of internship.

Assessment Scheme

Sl. No	Course Type	L	T	P	C	CIA Weightage (Theory)				CIA	ESE		CIA (W)	ESE (W)	Min. Marks to Pass for 100	
						T1	A1	T2	A2	Prac	Th	Prac			ESE	Total
1	P26BA311	3	1	0	4	60	40	60	40	-	100	-	40	60	45	50
2		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
3		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
4		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
5		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
6		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
7		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
8		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50
9		3	0	0	3	60	40	60	40	-	100	-	40	60	45	50

P26BA311	STRATEGIC MANAGEMENT	L	T	P	C
		3	1	0	4

COURSE OBJECTIVES:

- To develop a comprehensive understanding of the foundations of strategic management
- To equip students with analytical tools and frameworks
- To enhance the ability to formulate and evaluate strategic options
- To cultivate practical knowledge of strategy implementation and control
- To encourage critical thinking on contemporary strategic issues

UNIT I: FOUNDATIONS OF STRATEGIC MANAGEMENT (9+3)

Definition, scope, and significance of strategic management- Levels of strategy: corporate, business, and functional-Strategic thinking and the role of managers as strategists-Strategic decision-making processes-Introduction to the Strategic Management Mode

UNIT II: ENVIRONMENTAL AND INDUSTRY ANALYSIS (9+3)

External environment analysis: PESTLE framework-Industry analysis using Porter's Five Forces-Internal environment assessment: VRIO framework-SWOT analysis for strategic positioning-Competitive intelligence and market dynamic

UNIT III: STRATEGY FORMULATION (9+3)

Vision, mission, and goal setting- Business-level strategies: cost leadership, differentiation, and focus-Corporate-level strategies: diversification, vertical integration, and strategic alliances global strategies and entry modes-Blue Ocean Strategy and innovation-driven approaches

UNIT IV: STRATEGY IMPLEMENTATION AND CONTROL (9+3)

Organizational structure and design for strategy execution-Leadership, culture, and change management in strategy implementation- Resource allocation and performance management systems-Balanced Scorecard and strategic control mechanisms-Managing strategic risk and ensuring adaptability.

UNIT V: CONTEMPORARY STRATEGIC ISSUES AND CASE STUDIES (9+3)

Corporate governance and ethical considerations in strategy-Sustainability and corporate social responsibility Digital transformation and its impact on strategic management-Strategic challenges in emerging markets- In-depth analysis of real-world business cases

TOTAL: 60 PERIODS

Learning Resources

1. Strategic Management (13th Edition) by Charles W. L. Hill, Melissa A. Schilling, and Gareth R. Jones, Cengage Learning Publications 2020.
2. Strategic Management (2nd Edition) by John Morris, Oregon State University Publications 2021.
3. Strategic Management by Frank T. Rothaermel, McGraw-Hill Education Publications 2020.
4. 2. Mastering Strategic Management (Version 3.0) by Dave Ketchen and Jeremy Short, Flat World Publications 2021.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the strategic management process and social responsibility of business	Understand
CO2	Illustrate the need for competitive advantage for organization	Understand
CO3	Describe the various insights of corporate and business strategies	Understand
CO4	Discuss the various control systems required for implementation of organizational strategy	Understand
CO5	Explain the cognitive knowledge about various strategic issues and new business development models	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	3
CO2	3	2	2	2	2
CO3	3	3	2	2	2
CO4	3	3	1	2	3
CO5	2	2	2	3	3
Average	**2.8**	**2.4**	**1.8**	**2.2**	**2.6**

(FUNCTIONAL SPECIALIZATIONS)

STREAM/SPECIALIZATION – FINTECH

P26BAFT01	SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:
- To understand the nuances of stock market operations.
- To understand the techniques involved in deciding upon purchase or sale of securities.
- To enable students to construct and manage optimal investment portfolios.
- To understand risk-return relationships and apply modern portfolio theories.

UNIT I: INVESTMENT SETTING (9)
Financial and economic meaning of Investment – Characteristics and objectives of Investment – Investment process -Types of Investment – Investment alternatives – Choice and Evaluation – Risk and return concepts - Valuation of bonds and stock

UNIT II: FUNDAMENTAL ANALYSIS (9)
Economic Analysis – Economic forecasting and stock Investment Decisions – Forecasting techniques. Industry Analysis: Industry classification, Industry life cycle – Company Analysis Measuring Earnings – Forecasting Earnings –Applied Valuation Techniques – Graham and Dodds investor ratios.

UNIT III: TECHNICAL ANALYSIS (9)
Fundamental Analysis Vs Technical Analysis -- Dow theory – Charting methods - Chart Patterns Trend – Trend reversals – Market Indicators -Moving Average – Exponential moving Average Oscillators -RSI -ROC - MACD. Efficient Market theory - Forms of market efficiency -weak, semi-strong, strong form - Empirical tests of market efficiency -its application.

UNIT IV: PORTFOLIO CONSTRUCTION AND SELECTION (9)
Portfolio analysis - Reduction of portfolio risk through diversification – Portfolio risk - Portfolio Selection - Feasible set of portfolios - Efficient set - Markowitz model - Single index model - Construction of optimum portfolio - Multi-index model.

UNIT V: CAPITAL ASSET PRICING MODEL (9)
Capital Asset Pricing model - Lending and borrowing - CML - SML - Pricing with CAPM - Arbitrage pricing theory– Portfolio Evaluation - Sharpe's index Treynor's index, Jensen's index - Mutual Funds – Portfolio Revision.

TOTAL: 45 PERIODS

Learning Resources

1. Investment Analysis and Portfolio Management, Prasanna Chandra, McGraw Hill India, 2021
2. Frank K. Reilly & Keith C. Brown (with Sanford J. Leeds), Investment Analysis and Portfolio Management, Cengage Learning, 12th Ed., published February 29, 2024
3. Security Analysis and Portfolio Management, S. Kevin, PHI Learning, 2022
4. Investment Analysis and Portfolio Management, Punithavathy Pandian, Vikas

CARE College of Engineering (Autonomous) Trichy-620 009

Publishing House, 2019.
5. Zvi Bodie, Alex Kane, Alan J. Marcus (with Mohanty for some editions), Investments McGraw Hill, 13th Ed., 2023
6. Security Analysis and Portfolio Management, V. A. Avadhani, Himalaya Publishing House, 2021

E-Resources:

- Investopedia: Security Analysis
- NSE India: Investor Education
- Money Control: Market Tools

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concept of investment and identify the investment alternatives to investors	Understand
CO2	Describe the fundamental and Industry analysis	Apply
CO3	Discuss the concept of technical analysis and various indicators	Apply
CO4	Explain how to construct an efficient portfolio	Apply
CO5	Explore the various methods through which portfolio evaluation could be done	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	2	1	1
CO2	2	3	1	2	2
CO3	2	3	2	1	2
CO4	2	2	1	1	2
CO5	2	3	1	1	2
Average	**2**	**2.6**	**1.4**	**1.2**	**1.8**

P26BAFT02	FINANCIAL TECHNOLOGY SERVICES & MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVE:

- To provide a comprehensive understanding of the evolution, scope, and ecosystem of Financial Technology (FinTech), including its infrastructure and key stakeholders.
- To familiarize students with modern electronic payment systems, digital financial services, and underlying technologies such as blockchain and cryptocurrencies.
- To introduce various digital financial innovations, including alternative finance models like crowdfunding, P2P lending, and emerging financial products.
- To develop awareness of FinTech regulations, RegTech solutions, and the role of regulatory frameworks in ensuring compliance and financial stability.
- To equip students with knowledge of data-driven financial services, including data analytics, AI applications, digital identity, and data protection mechanisms.

UNIT I: FINTECH: INTRODUCTION (9)

FinTech Evolution: Infrastructure, Banks Startups and Emerging Markets - Collaboration between Financial Institutions and Startups –FinTech Typology - Emerging Economics: Opportunities and Challenges - 8 From too-Small-To-Care to Too-Big-To-Fail – Introduction to Regulation Industry - The Future of RegTech and other Technologies Impacting it.

UNIT II: E-PAYMENT SYSTEMS (9)

Payments, Crypto currencies and Blockchain – Introduction - Individual Payments –Digital Financial Services – Mobile Money – Regulation of Mobile Money – SFMS - RTGS - NEFT –NDS Systems – Crypto currencies – Legal and Regulatory Implications of Crypto currencies –What is Blockchain? – The Benefits from New Payment Stacks.

UNIT III: DIGITAL FINANCIAL INNOVATION (9)

Digital Finance and Alternative Finance - Introduction – Brief History of Financial Innovation – Digitization of Financial Services - FinTech & Funds- Crowd funding– Regards, Charity and Equity - P2P and Marketplace Lending – New Models and New Products - What is an ICO.

UNIT IV: FINTECH REGULATIONS (9)

FinTech Regulation and RegTech - Introduction - FinTech Regulations Evolution of RegTech – RegTech Ecosystem: Financial Institutions – RegTech Ecosystem Ensuring Compliance from the Start: Suitability and Funds – RegTech Startups: Challenges – RegTech Ecosystem: Regulators Industry – Use Case of AI in Smart Regulation and Fraud Detection – Regulatory Sandboxes – Smart Regulation – Redesigning Better Financial Infrastructure.

UNIT V: DATA IN FINANCIAL SERVICES (9)

Data & Tech - Introduction - History of Data Regulation – Data in Financial Services – Application of Data Analytics in Finance - Methods of Data Protection: GDPR Compliance and Personal Privacy – How AI is Transforming the Future of FinTech – Digital Identity – Change in mindset: Regulation 1.0 to 2.0 (KYC to KYD) - AI & Governance – New Challenges of AI and Machine Learning - Challenges of Data Regulation - Data is the New Oil: Risk of Breach – The Future of Data-Driven Finance - Case Studies

TOTAL: 45 PERIODS

Learning Resources

1. Agustin Rubini, "Fintech in a Flash: Financial Technology Made Easy", Zaccheus, 3rd Edition, 2018.
2. Susanne Chishti and Janos Barberis, " The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries", John Wiley, 1st Edition, 2016.
3. Theo Lynn, John G. Mooney, Pierangelo Rosati, Mark Cummins, "Disrupting Finance: FinTech and Strategy in the 21st Century", Palgrave, 1st edition, 2018.
4. Abdul Rafay, "FinTech as a Disruptive Technology for Financial Institutions", IGI Global, January, 2019.
5. Bernardo Nicoletti, The Future of FinTech: Integrating Finance and Technology in Financial Services, Palgrave Macmillan, August, 2018.
6. Pranay Gupta & T. Mandy Tham, Fintech: The New DNA of Financial Services, De|G Press, 2024

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the evolution, components, and impact of FinTech ecosystems, including collaboration between financial institutions and startups.	Understand
CO2	Analyze and compare various e-payment systems, digital payment infrastructures, and blockchain-based financial solutions.	Analyze
CO3	Evaluate different digital financial innovations such as crowdfunding, P2P lending, and ICOs, and their implications in modern finance.	Evaluate
CO4	Discuss FinTech regulatory frameworks, understand RegTech applications, and assess compliance and risk management strategies.	Understand
CO5	Apply data analytics concepts in financial services, assess data privacy challenges, and understand the role of AI in shaping future financial systems.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	2	2	2	1	2
CO3	1	1	1	1	1
CO4	2	1	1	1	2
CO5	2	1	1	1	2
Average	**1.8**	**1.4**	**1.2**	**1**	**1.8**

P26BAFT03	BANKING AND FINANCIAL SERVICES	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the sources of funds in banking, their deployment, and the associated risk management practices.
- To gain knowledge of e-banking systems and the security challenges and risks associated with them.
- To develop an understanding of bank fund management, risk management techniques, and regulatory frameworks.
- To familiarize learners with various fund-based and asset-based financial services in India.
- To equip students with analytical skills to evaluate banking performance and financial services.

UNIT I: INTRODUCTION TO INDIAN BANKING SYSTEM AND PERFORMANCE EVALUATION (9)

Overview of Indian Banking system – Structure – Functions – Key Regulations in Indian Banking sector –RBI Act, 1934/ 2006 –Banking Regulation Act, 1949– Negotiable Instruments Act 1881/ 2002 – Provisions Relating to CRR – Provision for NPA's - Overview of Financial Statements of banks – Balance Sheet – Income Statement – CAMEL

UNIT II: MANAGING BANK FUNDS/ PRODUCTS & RISK MANAGEMENT (9)

Capital Adequacy – Deposit and Non-deposit sources – Designing deposit schemes and pricing of deposit sources – loan management – Investment Management – Asset and Liability Management – Financial Distress –Signal to borrowers – Prediction Models – Risk Management – Interest rate – Forex – Credit market –operational and solvency risks – NPA's – Current issues on NPA's – M&A's of banks into securities market

UNIT III: DEVELOPMENT IN BANKING TECHNOLOGY (9)

Payment system in India – paper based – e payment –electronic banking –plastic money – e-money – forecasting of cash demand at ATM's –The Information Technology Act, 2000 in India – RBI's Financial Sector Technology vision document – security threats in e-banking & RBI's Initiative.

UNIT IV: ASSET BASED FINANCIAL SERVICES (9)

Introduction – Need for Financial Services – Financial Services Market in India –NBFC – RBI framework and act for NBFC – Leasing and Hire Purchase – Financial evaluation – underwriting – mutual funds

UNIT V: INSURANCE AND OTHER FEE BASED FINANCIAL SERVICES (9)

Insurance Act, 1938 –IRDA – Regulations – Products and services –Venture Capital Financing –Bill discounting –factoring – Merchant Banking – Role of SEBI

TOTAL: 45 PERIODS

Learning Resources

1. Padmalatha Suresh and Justin Paul, "Management of Banking and Financial Services, Pearson, Delhi, 2017.
2. Peter S. Rose & Sylvia Hudgins, Bank Management & Financial Services, McGraw Hill –

as of now, the 10th Ed. (co-authored with Marcia Erhemjamts) was published in 2024
3. Banking and Financial Services, Dr. A. V. Rajwade, McGraw Hill India, 2020
4. Financial Management, I. M. Pandey, Vikas Publishing House, 2018
5. Indian Financial System, Bharti V. Pathak, Pearson India, 2020
6. M. Y. Khan, Financial Services, McGraw Hill, 11th Ed., 2023

E-Resources:

- Reserve Bank of India – RBI Publications
- SEBI Official Site
- IRDAI – Insurance Regulatory and Development Authority of India

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the overall structure and functions of Indian Financial System	Understand
CO2	Discuss the regulations governing the Indian Banking system	Understand
CO3	Describe the loans proposed by banks to various prospective borrowers with different risk profiles and evaluate the performance of banks	Understand
CO4	Discuss the concept of e-banking	Understand
CO5	Illustrate fee-based and fund-based financial services in India	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	2	2	2	1	2
CO3	1	1	1	1	1
CO4	2	1	1	1	2
CO5	2	1	1	1	2
Average	1.8	1.4	1.2	1	1.8

<table>
<tr><td rowspan="2">P26BAFT04</td><td rowspan="2">FINANCIAL ANALYTICS</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>3</td></tr>
<tr><td colspan="6">COURSE OBJECTIVES:
• To provide a strong foundation in financial analytics in order to handle complex financial data, build advanced analytical models and deliver effective visualization product and comprehensive reports.
• To provide knowledge on risk modeling, volatility analysis, and portfolio analytics.
• To equip students with skills in applying analytics to derivatives and financial markets.
• To enhance the ability to use analytical tools such as R for data visualization and financial modeling.</td></tr>
<tr><td colspan="6">UNIT I: INTRODUCTION TO FINANCIAL ANALYTICS (9)
Definition, relevance and scope financial Analytics, recent trends in financial analytics - Financial Time Series and Their Characteristics: Asset Returns, Distributional Properties of Returns, Review of Statistical Distributions and properties of financial time series.</td></tr>
<tr><td colspan="6">UNIT II: PREDICTIVE ANALYTICS (9)
Simple linear regression, multiple linear regression, multinomial regression, forecasting techniques; application of predictive, financial services, insurance</td></tr>
<tr><td colspan="6">UNIT III: MODELING VOLATILITY AND RISK (9)
Characteristics of volatility. Modeling volatility using ARCH/GARCH models. Measuring and modeling risk. Application of Value at Risk (VaR)</td></tr>
<tr><td colspan="6">UNIT IV: ASSET PORTFOLIO MODELS (9)
Modeling Credit Risk: Corporate Liabilities as contingent claims, Endogenous default boundaries and optional Capital Structure, Intensity Modeling, Rating based term-structure models, Credit risk and interest-rate Swaps, Modeling dependent defaults</td></tr>
<tr><td colspan="6">UNIT V: ANALYTICS IN DERIVATIVES (9)
Derivative Pricing: Issues regarding derivative markets. Brownian motion, Black - Sholes model. Modeling derivative prices - High-Frequency Data Analysis: Non synchronous Trading, Bid–Ask Spread of trading Prices, Empirical Characteristics of Trading Data, and Models for Price Changes, Duration Models.</td></tr>
<tr><td colspan="6" align="right">TOTAL: 45 PERIODS</td></tr>
<tr><td colspan="6">Students have to bring their laptops installed with R and R Studio. Download R from http://cran.rproject.org/ and R Studio from http://www.rstudio.com/products/rstudio/download/</td></tr>
</table>

Learning Resources

1. Analysis of Financial Data with R, Ruey S. Tsay, Wiley Year of Publication: 2022
2. Financial Analytics, Ramesh Bhat, Oxford University Press India, 2021
3. Business Analytics, U. Dinesh Kumar, Wiley India, 2017
4. Practical Time Series Analysis, Aileen Nielsen, O'Reilly Media, 2019
5. Financial Risk Analytics, S. Sridharan, Oxford University Press India, 2020
6. Financial Risk Modelling and Portfolio Optimization with R, Bernhard Pfaff, Wiley Publication, 2016

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, scope, and significance of financial analytics, including the characteristics of financial time series data.	Understand
CO2	Apply predictive analytics techniques such as regression models and forecasting methods in financial services and insurance domains.	Apply
CO3	Analyze and model financial market volatility and risk using ARCH/GARCH models and Value at Risk (VaR) techniques.	Analyze
CO4	Evaluate credit risk and asset portfolio models, including default risk, interest rate derivatives, and dependency structures.	Evaluate
CO5	Apply analytical models in derivatives pricing and high-frequency financial data analysis.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**1.6**	**3**	**1.2**	**1.2**	**1.8**

		L	T	P	C
P26BAFT05	**CRYPTOGRAPHY AND BLOCKCHAIN**	**3**	**0**	**0**	**3**

COURSE OBJECTIVES:

- To develop knowledge of cryptographic techniques used in blockchain systems.
- To introduce the concept of Cryptocurrencies and its use cases.
- To introduce the concepts of Block Chain and its usages.
- To familiarize students with real-world blockchain implementations and industry use cases.
- To equip learners with analytical skills to evaluate blockchain applications, challenges, and regulatory aspects.

UNIT I: CRYPTOGRAPHY AND OTHER TECHNOLOGIES (9)

Application of Cryptography to Blockchain–Using hash functions to chain blocks-Digital Signatures to sign transactions – Using hash functions for Proof-of-Work. Putting the technology together- examples of implementations with their tradeoffs.

UNIT II: LAWS IN SMART CONTRACT (9)

Smart Contracts -Distributed Virtual Machines, Smart Contracts, Basics of contract law- Smart contracts and their potential, Trust in Algorithms, -Integration with existing legal systems-Open Zeplin, Open Law-Writing smart contracts.

UNIT III: FUNDAMENTAL OF BLOCKCHAIN (9)

Block Chain - Introduction to crypto economics - Byzantine agreement -Extensions of BFT (Ripple, Stellar) - Blockchain Dynamics - Public and private blockchains –Hard and soft forks Sharding, Side chain-Verifiers - trust, cost and speed - Proof of work and other models

UNIT IV: IMPLEMENTATION (9)

Supply Chain and Identity on Blockchain- Blockchain interaction with existing infrastructure- Trust in blockchain data- Scaling Blockchain- reading and writing data. Differentiate nodes, sparse data and Merkle trees –Fixing on the fly-Layer 2 solutions-Lightning and Ethereum state channels

UNIT V: THE BIG PICTURE OF THE INDUSTRY (9)

Size, growth, structure, players-Bitcoin versus Cryptocurrencies versus Blockchain - Distributed Ledger Technology (DLT) - Strategic analysis of the space- Major players: Blockchain platforms, regulators, application providers, etc.-Bitcoin, Hyper Ledger, Ethereum, Litecoin, Zcash.

Total: 45 Periods

Learning Resources

1. Blockchain Revolution: How the Technology Behind Bitcoin and Other Cryptocurrencies Is Changing the World, Don Tapscott and Alex Tapscott, Portfolio, 2018.
2. Blockchain Technology, Chandramouli Subramanian, Asha A. George, Abhillash K. A and Meena Karthikeyan, Universities Press India, 2021
3. Mastering Blockchain, Imran Bashir, Packet Publishing, 2023

4. Blockchain and Cryptocurrency, B. K. Sharma, BPB Publications, 2022
5. The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order, Paul Vigna and Michael J. Casey, Picador.2016
6. Blockchain Technology Explained: The Ultimate Beginner's Guide About Blockchain Wallet, Mining, Bitcoin, Ethereum, Litecoin, Zcash, Monero, Ripple, Dash, IOTA And Smart Contracts, Alan T. Norman, Create Space Independent Publishing Platform, 2017

E-Resources:

- Readings Investopedia: Blockchain Explained, https://www.investopedia.com/terms/b/blockchain.asp
- YouTube: How does a blockchain work, https://youtu.be/SSo_EIwHSd4
- KeyFactor: What is PKI and How Does it Work? https://www.keyfactor.com/education-center/what-is-pki/
- YouTube: Public Key Cryptography (short version), https://youtu.be/3QnD2c4Xovk
- ConsenSys: Blockchain Use Cases and Applications by Industry, https://consensys.io/blockchain-use-cases
- Coinbase: What is mining? https://www.coinbase.com/learn/crypto-basics/what-is-mining
- Understanding Web 3 — A User Controlled Internet, https://blog.coinbase.com/understanding-web-3-auser-controlled-internet-a39c21cf83f3
- Coinbase: DAOs: Social networks that can rewire the world, https://www.coinbase.com/learn/marketupdates/around-the-block-issue-21

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the role of cryptographic techniques such as hashing and digital signatures in securing blockchain systems.	Understand
CO2	Develop basic smart contracts, and analyze their legal implications and integration with existing legal frameworks.	Understand
CO3	Describe the fundamental concepts of blockchain, including consensus mechanisms, public and private blockchains, and crypto-economic principles.	Understand
CO4	Analyze blockchain implementation aspects such as scalability, data structures (Merkle trees), and Layer 2 solutions.	Analyze
CO5	Evaluate the blockchain ecosystem, including major platforms, industry players, and emerging trends in distributed ledger technologies.	Evaluate

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	2	2	2	1	2
CO3	1	1	1	1	1
CO4	2	1	1	1	2
CO5	2	1	1	1	2
Average	**1.8**	**1.4**	**1.2**	**1**	**1.8**

P26BAFT06	FINANCIAL VALUATION	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of the fundamental concepts of financial
- valuation.
- To develop analytical skills in interpreting, adjusting, and analysing financial Statements.
- To introduce the principles and methods of business valuation.
- To equip with the tools required for startup valuation, merger and acquisition valuation.
- To enhance practical valuation capabilities by applying valuation standards, preparing valuation reports, and understanding the Indian valuation ecosystem.

UNIT I: FOUNDATIONS OF VALUATION (9)

Meaning, Scope & Objectives of Valuation - Types of Value (Intrinsic, Fair, Market, Liquidation, etc.) - Understanding Financial Statements for Valuation - Adjustments to Financial Statements (Normalization) - Cash Flow vs Accounting Profit — Importance in Valuation - Forecasting Basics: Drivers of Growth & Risk - Overview of Valuation Approaches (DCF, Relative, Asset-based)

UNIT II: DISCOUNTED CASH FLOW VALUATION (9)

DCF Method: Concept & Framework - Free Cash Flow to Firm (FCFF) Computation – Free Cash Flow to Equity (FCFE) – Computation - Cost of Capital in India – WACC (Beta Estimation, Risk-free Rate, CRP) - Projecting Cash Flows – Revenue, Costs, Working Capital - Terminal Value Estimation (Gordon Model & Exit Multiples) - Sensitivity Analysis, Scenario Analysis in DCF.

UNIT III: RELATIVE & ASSET-BASED VALUATION (9)

Introduction to Relative Valuation - Equity Multiples (P/E, P/B) - Enterprise Value Multiples (EV/EBITDA, EV/Sales) - Selecting Comparable Firms in Indian Markets - Adjusting Multiples: Growth, Risk & Size - Precedent Transaction Valuation (Indian M&A context) - Asset-based Valuation: Book Value, Adjusted NAV - Liquidation Value, Replacement Value - Special Cases: Valuation of Financial Firms (Banks, NBFCs).

UNIT IV: ADVANCED VALUATION (9)

Startup Valuation – Characteristics of Early Stage Firms - Venture Capital Method, Probability-Weighted Valuation - Valuing High-Growth Firms – India Start-up Case Studies - Real Options Valuation – Concept & Applications - Distressed Firm Valuation (IBC Context) - Valuation in Bankruptcy & Liquidation Scenarios - Regulatory, Tax & Adjustments in Valuation (SEBI + MCA Guidelines)

UNIT V: VALUATION IN M&A, ESG & PRACTICAL MODELLING (9)

M&A Valuation Frameworks — Synergies & Control Premium - Precedent Transaction Analysis (Indian Cases) - Leveraged Buyout (LBO) – Cash Flow Waterfall - Purchase Price Allocation (Ind AS 103) - Deal Structuring & Valuation Adjustments - ESG Valuation – Impact of Sustainability Factors on Firm Value - Building a Valuation Model (Modular Excel Model) - Writing Valuation Reports: Structure, Evidence, Compliance(Indian Company Case).

TOTAL: 45 PERIODS

Learning Resources

1. Pandey, I. M. Financial Management. Pearson India, 2026
2. Chandra, P. Corporate Valuation (2nd ed.). McGraw-Hill India, 2020
3. Khan, M. Y., Jain, P. K. Financial Management: Text, Problems & Cases. Tata McGraw-Hill, 2018
4. Corporate Professionals, Business valuation in India (3rd ed.). Commercial Law Publishers, 2026.
5. Kothari, V., et al. Guide to valuation. Commercial Law Publishers, 2026.
6. Mohanty. P, Business valuation: Text & cases. Commercial Law Publishers, 2021.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the fundamental concepts of financial valuation, including time value of money, risk–return, and cost of capital.	Understand
CO2	Interpret and adjust financial statements for valuation by applying relevant accounting and financial analysis techniques.	Apply
CO3	Illustrate various valuation models such as DCF, relative valuation, dividend discount models, and asset-based valuation.	Apply
CO4	Apply valuation tools for startups, mergers and acquisitions, and business valuation under uncertainty using sensitivity and scenario analysis.	Apply
CO5	Develop valuation reports in accordance with Indian valuation standards and regulatory guidelines.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	**1.6**	**3**	**1.2**	**1.2**	**1.8**

STREAM/SPECIALIZATION – HUMAN RESOURCE MANAGEMENT

P26BAHR01	RECRUITMENT AND SELECTION	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of human resource planning and the strategic role of recruitment and selection in organizations.
- To develop analytical skills in conducting job analysis, preparing job descriptions and job specifications for effective hiring.
- To introduce various recruitment methods, sourcing strategies, employer branding techniques, and technology-enabled hiring tools.
- To equip students with the ability to apply different selection tests, interviewing techniques, and assessment tools for evaluating candidates.
- To enhance the capability to evaluate recruitment and selection effectiveness, understand legal frameworks, and design onboarding practices

UNIT I: INTRODUCTION TO RECRUITMENT & SELECTION (9)

Nature and scope of Human Resource Planning - Importance of Recruitment & Selection in HRM - Strategic role of Recruitment & Selection in Indian organizations - HR Planning process and forecasting HR needs - Job Analysis: Job Description, Job Specification - Competency mapping fundamentals - Workforce planning challenges in India - Ethical issues in Recruitment & Selection - Legal & regulatory framework in India (Labour laws, Equal opportunity norms)

UNIT II: RECRUITMENT – PROCESS, METHODS & STRATEGIES (9)

Recruitment process in Indian companies - Internal and external sources of recruitment - Campus recruitment, employee referrals, walk-ins - Job portals, social media hiring, digital recruitment tools - Employer branding & talent attraction strategies – Recruitment metrics & analytics - Diversity hiring & inclusive recruitment practices – Recruitment challenges in Indian industries - Recruitment Process Outsourcing (RPO) – Indian context

UNIT III: SELECTION – METHODS, TECHNIQUES & TOOLS (9)

Selection process : overview and stages - Application blanks & screening – Selection tests: aptitude, behavioral, cognitive, psychometric - Assessment centers (ACs) – tools & Indian corporate practices - Interviewing methods – structured, unstructured, behavioral, stress & panel interviews - Competency-based interviews & STAR method – Background verification & reference checks - Reliability & validity of selection tools – Selection errors, bias & improving selection decisions.

UNIT IV: STRATEGIC & CONTEMPORARY ISSUES IN RECRUITMENT & SELECTION (9)

Strategic staffing & workforce optimization - Talent acquisition (TA) vs. Recruitment - Employer branding strategies for Indian companies - AI & ML in Recruitment & Selection - HR analytics in hiring decisions - Gig workforce hiring and flexible staffing – Global recruitment trends and Indian adaptation - Diversity, equity & inclusion (DEI) strategies - Ethical issues and professional standards in recruitment

UNIT V: EVALUATION, ONBOARDING & LEGAL ASPECTS (9)

Evaluation of Recruitment & Selection effectiveness - Key performance indicators (KPIs) in hiring - Cost-benefit analysis of hiring - HR audits related to staffing - Onboarding & induction process - Socialization techniques - Retention strategies linked to selection quality - Indian labour laws related to recruitment and selection - Case studies of Indian companies (Infosys, TCS, Reliance, Tata Group)

TOTAL: 45 PERIODS

Learning Resources

1. Dowling, P., Festing, M., & Engle, A. International Human Resource Management, Cengage Learning, 8th Ed., 2024.
2. Aswathappa, K. Human Resource Management: Text and cases. McGraw-Hill Education. 10th Edition, 2023
3. Paul Smith and Gary Rees, Strategic Human Resource Management: An International Perspective, Sage Publications, South Asia Edition, 2024.
4. Dr. Ayan Das Gupta, Dr. B.S. Mishra, Mrs. S. Shiny, and Dr. Muralidhar L.B., Strategic Human Resource Management, Book Rivers, 1st Edition, 2023.
5. Dr. Rajeesh Viswanathan, Strategic Human Resource Management, Himalaya Publishing House, 1st Edition, 2022.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts of human resource planning, job analysis, and the strategic importance of recruitment and selection in organizations.	Understand
CO2	Analyze various recruitment methods, sources, and strategies, including digital recruitment and diversity hiring practices in the Indian context.	Understand
CO3	Apply appropriate selection techniques such as tests, interviews, and assessment tools while evaluating their reliability and validity.	Understand
CO4	Evaluate contemporary trends in recruitment and selection, including the use of AI, HR analytics, and gig workforce management.	Understand
CO5	Discuss the effectiveness of recruitment and selection processes, including onboarding practices, legal compliance, and organizational case studies.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	2
CO2	2	3	1	1	1
CO3	1	3	1	1	2
CO4	1	3	2	1	1
CO5	2	3	1	1	3
Average	1.6	3	1.2	1.2	1.8

<table>
<tr><td rowspan="2">P26BAHR02</td><td rowspan="2">INDUSTRIAL RELATIONS AND LABOUR LEGISLATIONS</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>3</td></tr>
</table>

COURSE OBJECTIVES:

- To explore contemporary knowledge and gain a conceptual understanding of industrial relations.
- To have a broad understanding of the legal principles governing the employment relationship at individual and collective level.
- To familiarize students with key labour legislations governing employment relationships in India.
- To enable learners to analyze labour welfare measures and legal frameworks for employee protection.
- To equip students with the ability to handle industrial relations issues in contemporary business environments.

UNIT I: INDUSTRIAL RELATIONS (9)

Concept, scope- objectives- Importance - Approaches to IR- Industrial relations system in India. Trade Unions Act,1926- trade union movement in India- objective -role - functions-procedure for registration of trade unions- Rights and responsibilities- problems- Employee relations in IT sector

UNIT II: INDUSTRIAL CONFLICTS AND LABOUR WELFARE (9)

The Industrial Disputes Act, 1947-Disputes – Impact – Causes – Strikes – Prevention – Industrial Peace – Government Machinery – Conciliation – Arbitration – Adjudication. Labor welfare-statutory Voluntary- welfare funds-welfare of unorganized labor

UNIT III: LABOUR LEGISLATIONS-I (9)

Origin and growth of labor legislation in India- Principles of labor legislations-Factories Act 1948-Minimum Wages Act, 1948- Payment of Wages Act, 1936- Payment of Bonus Act, 1965

UNIT IV: LABOUR LEGISLATIONS-II (9)

The Industrial employment (standing orders) Act, 1946- The Apprentices act, 1961-The Equal Remuneration act, 1976- Payment of Gratuity act 1972- Employee compensation act in 2013

UNIT V: LABOUR LEGISLATIONS-III (9)

Employees' Provident fund and Miscellaneous provisions act, 1952- Employees' state insurance (ESI) Act, 1948- Maternity Benefit Act, 1961- Contract Labor Regulations and Abolition Act, 1970 -The Child Labor Prevention and Regulation Act, 1986.

TOTAL: 45 PERIODS

Learning Resources

1. Dynamics of Industrial Relations, C. B. Mamoria & S. Mamoria (with P. Subba Rao) Himalaya Publishing House, 16th Ed., 2023
2. Dynamics of Industrial Relations, C. B. Mamoria and Satish Mamoria, Himalaya Publishing House, 2021
3. Industrial Relations and Labour Laws, Arun Monappa, Ranjeet Nambudiri and Patturaja Selvaraj, McGraw Hill India, 2022
4. Industrial Relations, Trade Unions and Labour Legislation, P. R. N. Sinha, Indu Bala Sinha and Seema Priyadarshini Shekhar, Pearson India, 2020
5. Industrial Laws, P. K. Padhi, PHI Learning, 2021
6. Employee Relations Management, P. N. Singh and Neeraj Kumar, Pearson India, 2019

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Discuss the Industrial relations system and Trade unions	Understand
CO2	Analyze the Industrial Disputes and labor welfare measures	Understand
CO3	Describe the Labor legislation and legal provisions for factory workers, wages and Bonus	Understand
CO4	Explain the Legal provisions for equal remuneration, gratuity, compensation, industrial employment, and Apprenticeship	Understand
CO5	Discuss the Legal provisions for EPF, ESI, Maternity, contract labors, and child labor prevention.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	2	2	2	3
CO3	2	2	1	1	2
CO4	3	2	1	1	1
CO5	3	2	1	1	2
Average	**2.8**	**2**	**1.2**	**1.4**	**2**

<table>
<tr><td rowspan="2">P26BAHR03</td><td rowspan="2">INTERNATIONAL HUMAN RESOURCE MANAGEMENT</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>3</td></tr>
<tr><td colspan="6">COURSE OBJECTIVES:
• The course aims to provide students insights to HR practices followed in Global organizations.
• To enable students to understand international staffing, recruitment, and expatriate management.
• To familiarize learners with global training, performance management, and compensation systems.
• To equip students with skills to manage cultural diversity and international workforce challenges.</td></tr>
<tr><td colspan="6">UNIT I: INTRODUCTION TO IHRM (9)
Definition – Evolution of HRM- Importance of IHRM, Models of IHRM – Matching Model, Harvard Model, Contextual Model, 5p Model, European Model, IHRM policies, Standardization, and Localization of HRM practices</td></tr>
<tr><td colspan="6">UNIT II: IHRM STRATEGIES (9)
Internationalization and world business – Strategic orientation, IHRM in cross border Mergers and Acquisitions, International Alliances – IHRM & Competitive advantage- Cultural context of IHRM</td></tr>
<tr><td colspan="6">UNIT III: RECRUITMENT AND SELECTION (9)
International Managers staffing – Approaches to staffing – Role of Expatriates – Role of inpatriate –Role of Non-expatriates- recruitment and selection methods- Current practices.</td></tr>
<tr><td colspan="6">UNIT IV: TRAINING AND DEVELOPMENT, PERFORMANCE APPRAISAL (9)
Expatriate training program, components, types, effectiveness measures, HCN training- Trends in international training and development – repatriation process and training. International performance Management methods – cultural issues in Performance Management.</td></tr>
<tr><td colspan="6">UNIT V: INTERNATIONAL COMPENSATION (9)
Components of international compensation- Approaches to international compensation – Challenges and choices -International Labor Standards – emerging Issues.</td></tr>
<tr><td colspan="6" align="right">TOTAL: 45 PERIODS</td></tr>
</table>

Learning Resources

1. A. International Human Resource Management, Dowling. P, Festing, M., & Engle, Cengage Learning, 8th Ed., 2024
2. International Human Resource Management, Christopher Brewster, Guy Vernon, Paul Sparrow and Elizabeth Houldsworth, Kogan Page, 2023
3. International Human Resource Management: Policies and Practices for Multinational Enterprises, Tarique, I., Briscoe, D., & Schuler, R. Routledge, 2nd Ed.,2023
4. International HRM, Srinivas R. Kandula, PHI Learning, 2018
5. International Human Resource Management, Peter J. Dowling, Marion Festing and Allen D. Engle, Cengage Learning, 2023
6. International Human Resource Management, Monir H. Tayeb, Oxford University Press, 2018

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, evolution, models, and policies of IHRM, and distinguish between standardization and localization of HR practices.	Understand
CO2	Analyze IHRM strategies in global business environments, including cross-border mergers, alliances, and the influence of cultural contexts on HR practices.	Understand
CO3	Apply appropriate international staffing approaches by evaluating the roles of expatriates, inpatriates, and non-expatriates in recruitment and selection.	Understand
CO4	Evaluate international training, development, and performance management systems, including expatriate training effectiveness and cultural challenges in appraisal.	Understand
CO5	Assess international compensation systems, labor standards, and emerging issues to support effective global workforce management.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	2	2	2	3
CO3	2	2	1	1	2
CO4	3	2	1	1	1
CO5	3	2	1	1	2
Average	2.8	2	1.2	1.4	2

P26BAHR04	HR ANALYTICS	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To analyze HR data to drive strategic decision-making and improve organizational performance.
- To enable students to analyze HR data using metrics, dashboards, and analytical tools.
- To provide knowledge on workforce planning, HR alignment, and performance measurement.
- To equip learners with skills in descriptive, predictive, and prescriptive analytics.

UNIT I: INTRODUCTION TO HR ANALYTICS (9)

Overview of HR Process - HR Analytics – An overview - Role of analytics in HR - HRM in changing context - Transition from transaction orientation to analytics orientation - HR Analytics Framework – People Capability Maturity Model – LAMP framework – HCM 21 framework – Talent analytics maturity model.

UNIT II: ORGANIZATION-WIDE ALIGNMENT ANALYTICS (9)

Alignment Analytics – link HR process and organization process - identify alignment opportunities; Human Capital Strategy - HR Alignment Inventory - workforce planning - Measurement Map – Lead and Lag indicators.

UNIT III: HR METRICS AND AUDITS (9)

Formulation of key performance indicators and key result areas; HR Metrics –
Recruitment metrics – Training and development metrics - Talent retention metrics –HR cost benefit metrics – Career Progression Metrics - Performance metrics – Diversity and Inclusion Metrics - Human capital ROI - Designing and Implementing HR Scorecard - Conducting HR Practice Audits

UNIT IV: DESCRIPTIVE ANALYTICS (9)

Descriptive Analytics – Exploring the people data – slice and dice of data – HR Dashboards - Segmentation - Business Insights - KPI Catalogue Creation.

UNIT V: PREDICTIVE AND PRESCRIPTIVE ANALYTICS (9)

Predicting future performance - techniques to capture the fallout of HR Practices - Data driven decision making, organization change and improvement.

TOTAL: 45 PERIODS

Learning Resources

1. HR Analytics Handbook, Laurie Bassi, Rob Carpenter and Dan McMurrer, Reed Business, 2019
2. Predictive HR Analytics, Martin R. Edwards and Kirsten Edwards, Kogan Page, 2019
3. HR Analytics, Dipak Kumar Bhattacharyya, Sage Publications India, 2017
4. People Analytics, Gajendra K. Adhikari, Wiley India, 2021
5. Human Resource Analytics, Sharan Kaur, Pearson India, 2020
6. HR Analytics: Understanding Theories and Applications, Dipak Kumar Bhattacharyya, Sage Publications, 2nd Ed., 2022

E-Resources:

1. Udemy / Coursera Courses: HR Analytics using Python/Excel

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, frameworks, and evolution of HR Analytics, including models such as LAMP, HCM 21, and People Capability Maturity Model.	Understand
CO2	Analyze organization-wide alignment by linking HR processes with business strategy using workforce planning tools and alignment analytics.	Understand
CO3	Apply HR metrics and KPIs to evaluate HR functions, and design HR scorecards and conduct HR audits.	Apply
CO4	Interpret HR data using descriptive analytics techniques, including dashboards, segmentation, and KPI catalogues to generate business insights.	Apply
CO5	Evaluate and apply predictive and prescriptive analytics techniques to support data-driven decision-making and organizational improvement.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	2	2	2	3
CO3	2	2	1	1	2
CO4	3	2	1	1	1
CO5	3	2	1	1	2
Average	**2.8**	**2**	**1.2**	**1.4**	**2**

P26BAHR05	REWARD AND COMPENSATION MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To impart skills in designing analyzing and restructuring reward management systems, policies and strategies.
- To understand the various dimensions of Compensation Management
- To develop skills in designing and evaluating compensation structures and policies.
- To enable students to analyze labour market dynamics and their impact on compensation decisions
- To familiarize learners with employee benefits, incentive plans, and performance-linked rewards.
- To equip students with knowledge of executive and international compensation practices.

UNIT I: INTRODUCTION (9)

Compensation - Definition - objectives- principles of compensation formulation- Compensation Design and strategy- theories of wage determination- Wage Structure -types of wages- wage boards- wage policy. Compensation decisions- compensation benchmarking- compensation trends and reward system in India.

UNIT II: EMPLOYEE COMPENSATION AND LABOUR MARKET (9)

Macroeconomics of Labour markets- Unemployment and its impact on labour market- Neoclassical microeconomics of labour markets-models, supply and demand-economic model Implications on employee compensation- economic theories and employee compensation- trade -offs - valuation of employee compensation.

UNIT III: MANAGING EMPLOYEE BENEFITS AND REWARDS (9)

Nature and types of employee benefits- statutory employee benefits in India- Deferred compensation plan- Non-monetary benefits. Reward - Meaning, Elements, Types- Basic concepts of reward management - Designing reward system- Approaches to reward system- Difference between reward and compensation.

UNIT IV: PERFORMANCE RELATED COMPENSATION (9)

Performance management system (PMS)-performance objectives - indicators- standards and metric - effective performance modeling-dimensions of performance- competency based pay. Team Compensation – Gain Sharing Incentive Plan – Enterprise Incentive Plan – Profit Sharing Plan- ESOPs

UNIT V: EXECUTIVE AND SALES COMPENSATION PLAN (9)

Executive Compensation – Components, Theories, Design- Relationship between Fixed and variable pay-Executive Incentive Programmes. Sale Compensation plan- design and administration- sales incentives and motivations. Compensation Management in Multi-National organisations.

TOTAL: 45 PERIODS

Learning Resources

1. Compensation Management in a Knowledge-Based World, Richard I. Henderson, Pearson, 2020
2. Strategic Reward Management, Joseph J. Martocchio, Pearson, 2020
3. Compensation and Reward Management, B. D. Singh, Excel Books, 2018

4. Human Resource Management, K. Aswathappa, McGraw Hill India, 2021
5. Reward Management, Michael Armstrong, Kogan Page, 2022
6. Strategic Compensation, Joseph J. Martocchio, Pearson, 2020

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, principles, and theories of compensation, including wage determination, wage structures, and compensation strategies.	Understand
CO2	Analyze labour market dynamics and economic theories to evaluate their impact on employee compensation and wage decisions.	Understand
CO3	Apply knowledge of employee benefits and reward systems to design effective compensation and reward structures in organizations.	Understand
CO4	Evaluate performance-related compensation systems, including incentive plans, competency-based pay, and employee stock options (ESOPs).	Understand
CO5	Design executive and sales compensation plans by assessing components, incentive structures, and compensation practices in multinational organizations.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	2
CO2	2	3	2	2	2
CO3	2	2	2	1	2
CO4	2	3	2	1	2
CO5	3	2	2	1	3
Average	**2.2**	**2.4**	**1.8**	**1.4**	**2.2**

P26BAHR06	ORGANIZATIONAL DESIGN, CHANGE AND DEVELOPMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To help the students to gain knowledge about the concepts of change management and to acquire the skills required to manage any change effectively.
- To understand the concept and techniques of OD and to enable the skills for the application of OD in organizations.
- To enable students to understand and manage organizational change effectively.
- To equip learners with skills to apply OD interventions for individual, group, and organizational improvement.
- To familiarize students with organizational learning, innovation, and sustainability practices.

UNIT I: ORGANIZATIONAL DESIGN (9)

Organizational Design – Determinants – Components – Basic Challenges of design – Differentiation, Integration, Centralization, Decentralization, Standardization, Mutual adjustment - Mechanistic and Organic Structures- Technological and Environmental Impacts on Design- Importance of Design – Success and Failures in design.

UNIT II: ORGANIZATIONAL DEVELOPMENT (9)

Introduction- evolution- basic values and assumptions- foundations of OD- Process of OD- managing the phases of OD- Organizational Diagnosis-Process-stages- Techniques- Questionnaire, interview, workshop, task-force- collecting, analyzing- feedback of diagnostic information.

UNIT III: ORGANIZATIONAL CHANGE (9)

Meaning, Nature, Forces for change- change agents- Change Process-Types and forms of change Models of change- Resistance to change – individual factors – organizational factors – techniques to overcome change- Change programs –job redesign.

UNIT IV: OD INTERVENTION (9)

Human process interventions-Individual, group and inter-group human relations- structure and technological interventions- strategy interventions – sensitivity training – survey feedback, process consultation – team building – inter-group development.

UNIT V: ORGANIZATIONAL EVOLUTION AND SUSTENANCE (9)

Organizational life cycle – Models of transformation – Models of Organizational Decision making – Organizational Learning – Innovation, Intrapreneurship and Creativity-HR implications

TOTAL: 45 PERIODS

Learning Resources

1. Organization Development and Change, Thomas G. Cummings and Christopher G. Worley, Cengage Learning, 2020
2. Organization Development, Wendell L. French and Cecil H. Bell, Pearson, 2017
3. Organization Development: Interventions and Strategies, S. Ramnarayan, T. V. Rao and Kuldeep Singh, Sage Publications India, 2019
4. Organizational Behaviour, K. Aswathappa, McGraw Hill India, 2021
5. Management of Organizational Change Author: K. Harigopal Publisher: Sage Publications India Year of Publication: 2017
6. Wendell L. French, Cecil H. Bell, Jr, Veena Vohra - Organization Development: Behavioral Science Interventions for Organizational Improvement, Sixth Edition 2017

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**KNOWLEDGE LEVEL**
CO1	Discuss the fundamentals of organizational design and structure	Understand
CO2	Describe the Change process, types, and models of change in organizations	Understand
CO3	Explain the fundamentals of organizational development	Understand
CO4	Identify the Organizational development Interventions	Understand
CO5	Express the Organizational evolution and sustenance	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	2
CO2	2	3	2	2	2
CO3	2	2	2	1	2
CO4	2	3	2	1	2
CO5	3	2	2	1	3
Average	2.2	2.4	1.8	1.4	2.2

STREAM /SPECIALIZATION – MARKETING MANAGEMENT

P26BAMM01	DIGITAL MARKETING	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the fundamentals of digital marketing strategy
- To develop in-depth knowledge of Search Engine Optimization (SEO) and Search Engine Marketing (SEM) techniques
- To explore various web marketing tools such as email marketing and mobile marketing
- To analyze the use of social media platforms for marketing
- To apply analytics and recent trends in digital marketing

UNIT I: STRATEGY DEVELOPMENT (9)

Digital marketing strategy – definition – Elements – roles. Setting SMART Goals and KPIs - Importance of SMART - Identifying key performance indicators - Tools for tracking KPIs and performance Establishing benchmarks.

UNIT II: INSIGHTS (9)

Search Engine optimization - Keyword Strategy - SEO Strategy - SEO success factors – On – Page Techniques – Off - Page Techniques. Search Engine Marketing - How Search Engine works –SEM components-PPC advertising-Display Advertisement

UNIT III: WEB MARKETING TOOLS (9)

E- Mail Marketing - Types of E- Mail Marketing -Email Automation -Lead Generation – Integrating Email with social media and Mobile- Measuring and maximizing email campaign effectiveness. Mobile Marketing-Mobile Inventory/channels-Location based; Context based; Coupons and offers, Mobile Apps, Mobile Commerce, SMS Campaigns-Profiling and targeting

UNIT IV: SOCIAL MEDIA (9)

Social Media Marketing -Social Media Channels-Leveraging Social media for brand conversations and buzz. Successful/benchmark Social media campaigns. Engagement Marketing-Building Customer relationships-Creating Loyalty drivers-Influencer Marketing.

UNIT V: DIGITAL PRACTICE (9)

Digital Transformation & Channel Attribution- Analytics-Ad-words, Email, Mobile, Social Media, Web Analytics- Changing your strategy based on analysis-Recent trends in Digital marketing.

TOTAL: 45 PERIODS

Learning Resources

1. Simon Kingsnorth, Digital Marketing Strategy: An Integrated Approach to Online Marketing, Kong Page Publication, 3rd Edition 2022
2. Stephanie Diamond, Digital Marketing, For Dummies Publication, 2nd edition 2023
3. K. Connors and Anthony Ziello, Digital Marketing: Mastering AI, SEO, Social Media, and Data-Driven Strategies for Business Growth, K. Connors, 3rd Edition 2024.
4. Dave Chaffey and Fiona Ellis-Chadwick, Digital Marketing, Pearson Publications, 8th Edition 2022

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the fundamental concepts, scope, and significance of strategic management and identify the various levels of strategy within an organization	Understand
CO2	Analyze external and internal business environments using strategic tools such as PESTLE, Porter's Five Forces, VRIO, and SWOT to identify opportunities and threats.	Analyze
CO3	Develop and evaluate appropriate business and corporate-level strategies including cost leadership, differentiation, diversification, and Blue Ocean Strategy to achieve organizational goals.	Apply
CO4	Discuss the frameworks and practices for effective strategy implementation, including organizational design, leadership, resource allocation, and performance control mechanisms.	Understand
CO5	Describe contemporary strategic issues including corporate governance, sustainability, digital transformation, and challenges in emerging markets through case study analysis.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	1	3
CO3	2	2	1	1	2
CO4	3	2	3	1	2
CO5	2	2	2	2	2
Average	**2.6**	**2.2**	**2**	**1.4**	**2.2**

P26BAMM02	SALES AND DISTRIBUTION MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To gain insights into the selling and distribution process.
- To enable students to manage sales force effectively through recruitment, training, and motivation.
- To familiarize learners with distribution channel design and management strategies.
- To equip students with knowledge of logistics and supply chain management in a digital environment.

UNIT I: INTRODUCTION (9)

Sales management - nature and scope. Sales management positions. Personal Selling - Scope, theories, and strategies. Sales forecasting and budgeting decisions. Online selling - scope, potential, Merits and Demerits.

UNIT II: PERSONAL SELLING PROCESS, SALES TERRITORIES & QUOTAS (9)

Selling process and relationship selling. Designing Sales Territories and quotas. Sales organization structures.

UNIT III: MANAGING THE SALES FORCE (9)

Sales force - recruitment, selection, training, motivating, compensation, and control

UNIT IV: MANAGING DISTRIBUTION CHANNELS (9)

Distribution Management - Introduction, need and scope. Channels -Strategies and levels, retailing and wholesaling. Designing channel systems and channel management.

UNIT V: BASICS OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT (9)

Logistics - Scope, definition and components. Managing FG Inventory & warehousing. Transportation -Scope, Modes and role in Supply Chain effectiveness. Use of Information Technology in Online Selling and Goods tracking

TOTAL: 45 PERIODS

Learning Resources

1. Sales and Distribution Management: Krishna K. Havaldar & Vasant M. Cavale, Text and Cases, McGraw Hill, 4th Ed., 2023
2. Sales and Distribution Management: S. L. Gupta, Text and Cases – An Indian Perspective, Excel Books, 2nd Ed., 2021
3. Sales and Distribution Management – An Indian Perspective : Pingali Venugopal, Sage Publications, 2nd Ed., 2022
4. Sales Management – Decisions, Strategies and Cases: Richard R. Still, Edward W. Cundiff & Norman A. P. Govoni (with Sandeep Puri), Pearson Education, 7th Ed., April 2024
5. Managing Retailing: P. K. Sinha & D. P. Uniyal, Oxford University Press India, 4th Ed., 2025

E-Resources:

1. NPTEL Online Course: Sales and Distribution Management
2. Harvard Business Publishing Cases on Sales & Distribution
3. Coursera: Sales Operations/Force Management Specialization
4. HubSpot Academy – Free CRM and Sales Management Resources

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, scope, and functions of sales management, including personal selling strategies, sales forecasting, and online selling.	Understand
CO2	Apply the personal selling process and design effective sales territories, quotas, and sales organization structures.	Understand
CO3	Analyze and manage the sales force through effective recruitment, training, motivation, compensation, and control mechanisms.	Understand
CO4	Evaluate distribution channel strategies, including channel design, retailing, wholesaling, and channel management practices.	Understand
CO5	Explain logistics and supply chain components, including inventory management, warehousing, transportation, and the role of information technology in enhancing supply chain efficiency.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	3	1	1	2
CO3	2	2	2	2	2
CO4	2	2	2	1	2
CO5	2	2	1	2	2
Average	**2.4**	**2.2**	**1.4**	**1.6**	**2**

P26BAMM03	INTEGRATED MARKETING COMMUNICATION	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- This course introduces students to the essential concepts and techniques for the development and designing an effective Integrated Marketing Communication programme.
- To enable students to understand consumer behavior and communication response models.
- To equip learners with knowledge of budgeting, media planning, and campaign evaluation.
- To familiarize students with digital media, advertising trends, and ethical practices in IMC.

UNIT I: AN INTRODUCTION TO INTEGRATED MARKETING COMMUNICATION (9)

An Introduction to Integrated Marketing Communication (IMC): Meaning and role of IMC in Marketing process, one voice communication V/s IMC. Introduction to IMC tools – Advertising, sales promotion, publicity, public relations, and event sponsorship; The role of advertising agencies and other marketing organizations providing marketing services and perspective on consumer behavior.

UNIT II: UNDERSTANDING COMMUNICATION PROCESS (9)

Understanding communication process: Source, Message and channel factors, Communication response hierarchy- AIDA model, Hierarchy of effect model, Innovation adoption model, information processing model, The standard learning Hierarchy, Attribution Hierarchy, and low 20% involvement hierarchy Consumer involvement- The Elaboration Likelihood (ELM) model, The Foote, Cone and Belding (FCB) Model.

UNIT III: PLANNING FOR MARKETING COMMUNICATION (9)

Establishing marcom Objectives and Budgeting for Promotional Programmes-Setting communication objectives, Sales as marcom objective, DAGMAR approach for setting ad objectives. Budgeting for marcom-Factors influencing budget, Theoretical approach to budgeting viz. Marginal analysis and Sales response curve, Method to determine marcom budget

UNIT IV: DEVELOPING THE INTEGRATED MARKETING COMMUNICATION PROGRAMME (9)

Planning and development of creative marcom, Creative strategies in advertising, sales promotion, publicity, event sponsorships etc. Creative strategy in implementation and evaluation of marcom- Types of appeals and execution styles. Media planning and selection decisions- steps involved and information needed for media planning. Measuring the effectiveness of all Promotional tools and IMC.

UNIT V: DIGITAL MEDIA & ADVERTISING (9)

Digital Media, Evolution of Technology, Convergence of Digital Media, E- Commerce and Digital Media, Advertising on Digital Media, Social Media, Mobile Adverting, E-PR Advertising Laws & Ethics: Adverting & Law, Advertising & Ethics

TOTAL: 45 PERIODS

Learning Resources

1. Advertising and Promotion: An Integrated Marketing Communications Perspective, George E. Belch and Michael A. Belch, McGraw Hill Education, 2021
2. Integrated Marketing Communications, Kruti Shah and Alan D'Souza, McGraw Hill India, 2020
3. Marketing Communications: Indian Context, Jaishri Jethwaney and Shruti Jain, Oxford University Press India, 2019
4. Advertising and Integrated Brand Promotion, Thomas O'Guinn, Chris Allen and Richard J. Semenik, Cengage Learning, 2021
5. Integrated Marketing Communications, Kenneth E. Clow and Donald Baack, Pearson, 2022

E-Resources:

1. https://www.brandingstrategyinsider.com – Thought leadership on brand strategy
2. https://www.interbrand.com – Brand valuation reports
3. https://www.hbr.org – Case studies and branding articles
4. https://www.coursera.org – Brand Management Courses from top B-schools
5. https://www.youtube.com/HarvardBusiness – Videos on product and brand success stories

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts, tools, and role of Integrated Marketing Communication (IMC) in the marketing process and its influence on consumer behavior.	Understand
CO2	Analyze communication models and consumer response theories (AIDA, Hierarchy of Effects, ELM, FCB) to understand the effectiveness of marketing communication.	Understand
CO3	Apply methods for setting marketing communication objectives and evaluate budgeting techniques using approaches such as DAGMAR, marginal analysis, and sales response models.	Understand
CO4	Develop integrated marketing communication programmes by designing creative strategies, selecting appropriate media, and assessing the effectiveness of promotional tools.	Understand
CO5	Evaluate the role of digital media and advertising, including social media and mobile marketing, while considering legal and ethical issues in advertising.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	3	1	1	2
CO3	2	2	2	2	2
CO4	2	2	2	1	2
CO5	2	2	1	2	2
Average	2.4	2.2	1.4	1.6	2

P26BAMM04	RETAIL MARKETING	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- Learn the concept of retailing, retail formats and recent developments in retail industry
- Gain knowledge of different dimensions of retail strategy.
- To develop knowledge of retail strategies including location, pricing, merchandising, and store management.
- To enable students to understand retail operations, supply chain, and inventory management.
- To equip learners with insights into retail consumer behavior and service quality management.
- To familiarize students with emerging trends such as online retailing and retail technology.

UNIT I: INTRODUCTION (9)

An overview of Global Retailing - Challenges and opportunities - Retail trends in India - Socio economic and technological Influences on retail management - Government of India policy implications on retails.

UNIT II: RETAIL FORMATS (9)

Organized and unorganized formats - Different organized retail formats - Characteristics of each format-Emerging trends in retail formats-MNC's role in organized retail formats.

UNIT III: RETAILING DECISIONS (9)

Choice of retail locations - internal and external atmospherics - Positioning of retail shops - Building retail store Image - Retail service quality management - Retail Supply Chain Management - Retail Pricing Decisions. Merchandizing and category management-buying.

UNIT IV: RETAIL SHOP MANAGEMENT (9)

Visual Merchandise Management - Space Management - Retail Inventory Management - Retail accounting and audits -Retail store brands-Retail advertising and promotions-Retail Management Information Systems-Online Retail-Emerging trends.

UNIT V: RETAIL SHOPPER BEHAVIOUR (9)

Understanding of Retail shop per behavior-Shop per Profile Analysis- Shopping Decision Process- Factors influencing retail shop per behavior-Complaints Management-Retail sales force Management - Challenges in Retailing in India.

TOTAL: 45 PERIODS

Learning Resources

1. Retail Management : Michael Levy, Barton Weitz & Ajay Pandit, Tata McGraw Hill, 10th Ed., 2024
2. Retail Management: Chetan Bajaj, Rajnish Tewari & Nidhi Srivastava, Oxford University Press, 4th Ed., 2024
3. Retailing Management: Text and Cases: Swapna Pradhan, Tata McGraw Hill, 7th Ed., 2024
4. Indian Retailing: Text & Cases: Ramkrishnan & Y.R. Srinivasan, Oxford University Press, 4th Ed., 2024

5. Customer Relationship Management: Dr. Jaspreet Kaur, Kogent Learning Solutions, 2nd Ed., 2024

E-Resources:
1. NPTEL – Retail Management
2. Retailers Association of India (RAI)
3. Harvard Business Review – Retail Insights
4. RetailWire 78
5. Shopify Blog – Retail Trends
6. Statista – Global Retail Data

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts of global retailing, retail trends in India, and analyze the socio-economic, technological, and policy influences affecting retail management.	Understand
CO2	Classify and compare organized and unorganized retail formats, and evaluate the characteristics and emerging trends in retail formats including the role of MNCs.	Understand
CO3	Apply retailing decision-making techniques in selecting store locations, designing store atmospherics, positioning, pricing, merchandising, and supply chain management.	Understand
CO4	Demonstrate retail shop management practices including visual merchandising, inventory control, space management, retail accounting, and the use of MIS and online retail systems.	Understand
CO5	Analyze retail shopper behavior, evaluate factors influencing buying decisions, and propose strategies for complaint handling and retail sales force management in the Indian context.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	3	2
CO2	1	1	1	2	2
CO3	2	1	1	1	2
CO4	1	1	1	2	2
CO5	2	2	1	1	2
Average	**1.6**	**1.4**	**1**	**1.8**	**2**

P26BAMM05	SERVICES MARKETING	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To appreciate the challenges involved in managing the services and analyze the strategies to deal with these challenges.
- To give insights about the foundations of services marketing, customer expectations of services and gap existing in the service delivery processes and service Quality.
- To equip students with strategies for managing demand, supply, and service communication.
- To familiarize students with sector-specific service marketing strategies and emerging trends.

UNIT I: INTRODUCTION (9)

Introduction– Definition– Service Economy – Evolution and growth of service sector – Nature and Scope of Services –Difference between services and tangible products– Unique characteristics of services– Challenges and issues in Services Marketing.

UNIT II: SERVICE MARKETING OPPORTUNITIES (9)

Assessing service market potential – Classification of services – Expanded marketing mix – Service marketing – Environment and trends – Service market segmentation, targeting and positioning.

UNIT III: SERVICE DESIGN AND DEVELOPMENT (9)

Service Life Cycle – New service development – Service Blue Printing – GAP model of service quality –Measuring service quality – SERVQUAL – Service Quality function development.

UNIT IV: SERVICE DELIVERY AND PROMOTION (9)

Positioning of services – Designing service delivery System, Service Channel – Pricing of services,methods – Service marketing triangle – Managing demand, Managing supply, managing Demand and Supply of Service–Integrated Service marketing communication.

UNIT V: SERVICE STRATEGIES (9)

Service Marketing Strategies for Health – Hospitality – Tourism – Financial – Logistics– Educational –Marketing of Online Services– Entertainment & public utility Information technique Services

TOTAL: 45 PERIODS

Learning Resources

1. Services Marketing: People, Technology, Strategy, World Scientific: Christopher H. Lovelock & Jochen Wirtz, Pearson, 9th Ed., 2023
2. Services Marketing: Concepts, Strategies & Cases, J. E. G. Bateson & K. Douglas Hoffman, Cengage Learning, 6th Ed., March 2023
3. Services Marketing: Integrating Customer Focus Across the Firm, Valarie A. Zeithaml, Mary Jo Bitner, D. Dwayne Gremler & A. Pandit, McGraw-Hill Education, 8th Ed., 2024
4. Service Management and Marketing: Managing the Service-Profit Logic, Christian Grönroos, Wiley, 4th Ed., 2016
5. Services Marketing: The Indian Context, R. Srinivasan, PHI Learning, 4th Ed., 2025

E-Resources:

1. www.servicefutures.com
2. www.marketingprofs.com
3. Coursera: Services Marketing Essentials
4. Harvard Business Review on Service Strategy

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the service based and physical product-based marketing activities	Understand
CO2	Develop marketing planning and control systems appropriate to service-based activities	Apply
CO3	Explain the models and development of service quality	Understand
CO4	Illustrate the service design system and promotional methods	Understand
CO5	Discuss the strategies required for creating service excellence in various industries	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	2
CO2	2	2	1	2	3
CO3	2	1	1	2	2
CO4	2	2	1	2	2
CO5	2	1	2	2	2
Average	2	1.6	1.2	2	2.2

P26BAMM06	**MARKETING METRICS**	**L**	**T**	**P**	**C**
		3	**0**	**0**	**3**

COURSE OBJECTIVES:

- To introduce to the key concepts of marketing performance management.
- To understand how marketing metrics can be used effectively within the business environments marketers.
- To develop the analytical understanding and skills needed to make fact-based decisions in managing marketing performance
- To enable students to apply quantitative techniques in pricing, sales, and brand management.
- To equip learners with knowledge of data-driven marketing and marketing analytics tools.

UNIT I: INTRODUCTION (9)

Marketing Metrics - Key Concepts, Importance, and Utility. Opportunities, Performance and Accountability. Data availability, Sources of Data, Big Data, Key Marketing Metrics

UNIT II: MARGINS AND PROFITS (9)

Selling Price and Channel margins, Average price, Cost structures and profit, Contribution analysis, Target volume analysis.

UNIT III: PRODUCT PORTFOLIO MANAGEMENT (9)

Trial, Repeat, Penetration and Volume projection, Brand Valuation, Brand Equity Metrics, Conjoint analysis.

UNIT IV: SALES FORCE MANAGEMENT (9)

Setting Sales force-goals, Evaluating Results, Compensation plans, Pipeline analysis, Distribution coverage and logistics, Inventory turns.

UNIT V: PRICING STRATEGY (9)

Price premium, Reservation price, Optimal prices, Price elasticity and Demand.

TOTAL: 45 PERIODS

Learning Resources

1. Marketing Metrics, Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer and David J. Reibstein, Pearson, 2020
2. Marketing Analytics, Wayne L. Winston, Wiley India, 2022
3. Marketing Analytics, Seema Gupta, McGraw Hill India, 2022
4. Marketing and Sales Analytics, César Brea, Pearson, 2017

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain key marketing metrics, their importance, and evaluate data sources including big data for marketing performance and accountability.	Understand
CO2	Analyze pricing structures, channel margins, cost structures, and apply contribution and target volume analysis to assess profitability.	Analyze
CO3	Evaluate product portfolio performance using metrics such as trial, repeat purchase, penetration, brand valuation, brand equity, and apply conjoint analysis for decision-making.	Evaluate
CO4	Apply sales force management techniques including goal setting, performance evaluation, compensation planning, pipeline analysis, and distribution metrics.	Apply
CO5	Analyze pricing strategies using concepts such as price premium, reservation price, optimal pricing, and price elasticity of demand to support marketing decisions.	Analyze

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	3	1	1	2
CO3	2	2	2	2	2
CO4	2	2	2	1	2
CO5	2	2	1	2	2
Average	**2.4**	**2.2**	**1.4**	**1.6**	**2**

STREAM/SPECIALIZATION - BUSINESS ANALYTICS

P26BABA01	E-BUSINESS MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of e-business concepts, models, and digital ecosystems
- To develop knowledge of technologies and infrastructure required for e-business operations.
- To enable students to analyze e-business applications in marketing, CRM, and online services.
- To equip learners with insights into e-payment systems, security, and risk management.
- To familiarize students with legal, ethical, and privacy issues in e-business environments.

UNIT I: INTRODUCTION TO E-BUSINESS (9)
e-business, e-business vs e-commerce, Economic forces – advantages – myths – e-business models, design, develop and manage e-business, Web 2.0 and Social Networking, Mobile Commerce, S-commerce – Case Studies.

UNIT II: TECHNOLOGY INFRASTRUCTURE FOR E BUSINESS (9)
Internet and World Wide Web, internet protocols - FTP, intranet and extranet, information publishing technology- basics of web server hardware and software.

UNIT III: BUSINESS APPLICATIONS (9)
Consumer oriented e-business – e-tailing and models - Marketing on web – advertising, e-mail marketing, affiliated programs - e-CRM; online services, Business oriented e-business, e-governance, EDI on the internet, Delivery management system, Web Auctions, Virtual communities and Web portals – social media marketing – Case Studies.

UNIT IV: E-BUSINESS PAYMENTS AND SECURITY (9)
E-payments - Characteristics of payment of systems, protocols, e-cash, e-cheque and Micro payment systems- internet security – cryptography – security protocols – network security – Case Studies.

UNIT V: LEGAL, ETHICAL AND PRIVACY ISSUES (9)
Legal, Ethics and privacy issues – Protection needs and methodology – consumer protection, cyber laws, contracts and warranties, Taxation and encryption policies.

TOTAL: 45 PERIODS

Learning Resources

1. Gary P. Schneider — Electronic Commerce, Cengage Learning, 12th Ed., 2022
2. Bharat Bhasker — Electronic Commerce: Framework, Technologies and Applications, McGraw Hill, 2020
3. Kamlesh K. Bajaj & Debjani Nag — E-Commerce: The Cutting Edge of Business, TMH, 2019
4. S. Jaiswal — Doing Business on the Internet: E-Commerce (E-Business), Galgotia Publications, 2020
5. Parag Kulkarni et al. — E-Business, Oxford University Press; 2012 edition
6. Shirish C. Sangle — Sustainability and E-Business, SAGE, 2021

E-Resources:

7. https://www.shopify.com/learn – E-commerce startup guides
8. https://www.bigcommerce.com/articles/ – E-Business operations & trends
9. https://www.entrepreneur.com/ – Digital entrepreneurship case studies

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts of e-business and e-commerce, evaluate various e-business models, and analyze the role of Web 2.0, social networking, mobile commerce, and s-commerce.	Understand
CO2	Describe the technology infrastructure of e-business, including internet protocols, web servers, intranet/extranet, and information publishing technologies.	Understand
CO3	Apply e-business applications in consumer and business contexts, including e-tailing, digital marketing, e-CRM, e-governance, EDI, and social media marketing.	Apply
CO4	Analyze electronic payment systems and evaluate security mechanisms such as cryptography, security protocols, and network security in e-business environments.	Analyze
CO5	Evaluate legal, ethical, and privacy issues in e-business, including consumer protection, cyber laws, contracts, taxation, and data protection policies.	Analyze

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	2
CO2	2	2	1	1	1
CO3	2	3	1	1	2
CO4	2	2	1	1	1
CO5	2	2	1	3	2
Average	2.2	2.4	1	1.4	1.6

P26BABA02	DATA MINING FOR BUSINESS INTELLIGENCE	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a strong foundation in data mining concepts and business intelligence applications.
- To develop skills in applying predictive, classification, and clustering techniques for business data analysis.
- To enable students to use machine learning methods for solving business problems.
- To equip learners with knowledge of data mining processes, performance measures, and validation techniques.
- To enhance decision-making abilities through data-driven insights and analysis.

UNIT I: INTRODUCTION (9)
Data mining, Text mining, Web mining, Spatial mining, Process mining, Data ware house and Datamart.

UNIT II: PREDICTION TECHNIQUES (9)
Data visualization, Time series - ARIMA, Winter Holts, Vector Autoregressive analysis, Multivariate regression analysis.

UNIT III: CLASSIFICATION AND CLUSTERING TECHNIQUES (9)
Classification- Decision trees, k nearest neighbor, Logistic regression, Discriminant analysis; Clustering; Market basket analysis.

UNIT IV: MACHINE LEARNING AND AI (9)
Genetic algorithms, Neural network, Fuzzy logic, Support Vector Machine, Optimization techniques – Ant Colony, Particle Swarm, DEA

UNIT V: DATA MINING PROCESS (9)
Datamining process – KDD, CRISP-DM, SEMMA and Domain-Specific, Classification and Prediction performance measures -RSME, MAD, MAP, MAPE, Confusion matrix, Receiver Operating Characteristic curve & AUC; Validation Techniques - hold-out, k-fold cross-validation, LOOCV, random subsampling, and bootstrapping.

TOTAL: 45 PERIODS

Learning Resources

1. Data Mining for Business Analytics, Galit Shmueli, Peter C. Bruce, Nitin R. Patel and Peter Gedeck, Wiley India, 2020
2. Business Intelligence and Analytics, Ramesh Sharda, Dursun Delen and Efraim Turban, Pearson, 2021
3. Data Mining and Business Intelligence, G. K. Gupta, PHI Learning, 2019
4. Data Mining: Concepts and Techniques, Jiawei Han, Micheline Kamber
5. Business Intelligence, Elizabeth Vitt, Michael Luckevich and Stacia Misner, Microsoft Press, 2019

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the concepts of data mining, text mining, web mining, spatial mining, process mining, and data warehousing, and differentiate between data warehouse and data mart.	Understand
CO2	Apply predictive analytics techniques such as time series models (ARIMA, Holt-Winters, VAR) and multivariate regression for forecasting and decision-making.	Apply
CO3	Implement classification and clustering techniques including decision trees, k-NN, logistic regression, discriminant analysis, and market basket analysis to analyze datasets.	Apply
CO4	Analyze and apply machine learning and AI techniques such as neural networks, genetic algorithms, fuzzy logic, SVM, and optimization methods for solving business problems.	Analyze
CO5	Evaluate data mining processes (KDD, CRISP-DM, SEMMA) and assess model performance using metrics (RMSE, MAD, MAPE, confusion matrix, ROC-AUC) and validation techniques.	Evaluate

Course Articulation Matrix

CO-PO Mapping					
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BABA03	SOCIAL MEDIA WEB ANALYTICS	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:
- To provide a comprehensive understanding of social media and web analytics concepts.
- To develop skills in leveraging social media platforms for business and marketing strategies.
- To enable students to analyze online consumer behavior and community engagement.
- To equip learners with knowledge of web analytics tools, SEO, and performance measurement.
- To enhance decision-making using data-driven insights from digital and social media platforms.

UNIT I: INTRODUCTION (9)
Evolution of online communities - History and Evolution of Social Media- Social Media vs. traditional media - Social Media Audience and Goals for using Social Media - Understanding Social Media: Strong and weak ties – Influencers - How ideas travel – Viralness - Social theory and social media - technological determinism in popular discourse on social media technologies.

UNIT II: COMMUNITY BUILDING AND MANAGEMENT (9)
Science of Social Media - Keys to Community Building - Promoting Social Media Pages- Linking Social Media Accounts-The Viral Impact of Social Media-Digital PR-Encourage Positive Chatter in Social Media - Identity in social media: formation of identities, communities, activist movements, and consumer markets - Social Media as business

UNIT III: SOCIAL MEDIA POLICIES AND MEASUREMENTS (9)
Social Media Policies-Etiquette, Privacy- ethical problems posed by emerging social media technologies - The road ahead in social media- The Basics of Tracking Social Media - social media analytics- Insights Gained From Social Media- Customized Campaign Performance Reports - Observations of social media use.

UNIT IV: WEB ANALYTICS (9)
Web Analytics - Present and Future, Data Collection - Importance and Options, Overview of Qualitative Analysis, Business Analysis, KPI and Planning, Critical Components of a Successful Web Analytics Strategy, Web Analytics Fundamentals, Concepts, Proposals & Reports, Web Data Analysis.

UNIT V: SEARCH ANALYTICS (9)
Search engine optimization (SEO), non-linear media consumption, user engagement, usergenerated content, web traffic analysis, navigation, usability, eye tracking, online security, online ethics, content management system, data visualization, RSS feeds, Mobile platforms, User centered design, Understanding search behaviors.

TOTAL: 45 PERIODS

Learning Resources

1. Web Analytics 2.0, Avinash Kaushik, Wiley, 20202. Social Media Marketing, Tracy L. Tuten and Michael R. Solomon, Sage Publications, 2021
2. Social Media Marketing, Puneet Singh Bhatia, Pearson India, 2020
3. Social Media: A Critical Introduction, Christian Fuchs, Sage Publications, 2021

4. Social Media in Business and Governance, K. M. Shrivastava, Sterling Publishers, 2019
5. Web Analytics, Eric T. Peterson, Celilo Group Media, 2018
6. Digital Marketing Analytics, Kevin Hartman, McGraw Hill Education, 2020

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the evolution of social media, distinguish it from traditional media, and analyze concepts such as social networks, influencers, and information diffusion.	Understand
CO2	Apply strategies for building and managing online communities, including social media promotion, digital PR, and fostering user engagement.	Apply
CO3	Evaluate social media policies, ethical issues, and privacy concerns, and analyze social media performance using analytics and reporting tools.	Understand
CO4	Apply web analytics concepts and tools to collect, analyze, and interpret data for business decision-making, including KPI development and reporting.	Apply
CO5	Analyze search analytics and user behavior by applying SEO techniques, usability principles, and web traffic analysis to optimize digital presence.	Apply

Course Articulation Matrix

CO-PO Mapping					
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	2
CO2	2	2	2	1	2
CO3	3	3	1	3	2
CO4	2	2	1	1	1
CO5	3	3	1	1	2
Average	2.6	2.4	1.4	1.6	1.8

P26BABA04	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING FOR MANAGERS	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the fundamentals and foundations of Artificial Intelligence and intelligent systems.
- To help students understand how ML supports data-driven decision-making across business functions.
- To develop the ability to interpret ML outputs, evaluation metrics, and model insights from a managerial perspective.
- To equip students with knowledge of ML applications such as prediction, segmentation, and forecasting.
- To enable students to frame business problems suitable for ML and evaluate ML project
- feasibility, ethics, and ROI.

UNIT I: INTELLIGENT SYSTEMS (9)

Introduction to Artificial Intelligence: Intelligent Systems - Foundations of AI - Applications - Tic-Tac-Toe Game Playing - Problem Solving: State-Space Search and Control Strategies: Introduction - General Problem Solving - Exhaustive Searches - Heuristic Search Techniques.

UNIT II: INTRODUCTION TO MACHINE LEARNING (9)

Basics of Artificial Intelligence and Machine Learning – Traditional programming vs. Machine Learning – Types of ML: Supervised, Unsupervised, and Reinforcement Learning– Real-world business applications in marketing, finance, HR, operations – Framing business problems for ML – Machine Learning workflow overview

UNIT III: DATA FOR MACHINE LEARNING (9)

Types of data (structured, unstructured) – Features and labels – Data collection, cleaning, and preparation – Handling missing data, outliers, and bias– Train/test split – Introduction to ethical and legal data considerations – Data quality and its impact on ML outcomes – Exploratory Data Analysis

UNIT IV: SUPERVISED LEARNING TECHNIQUES (9)

Regression: prediction of continuous outcomes – Business applications (sales forecasting, pricing, revenue prediction) – Classification: prediction of categories – Business applications (churn prediction, fraud detection, lead scoring) – Evaluation metrics: accuracy, precision, recall, F1-score, confusion matrix – Overfitting and underfitting explained visually – Interpreting ML outputs for managerial decisions.

UNIT V: ML IMPLEMENTATION, DEPLOYMENT AND ETHICS (9)

Machine Learning project lifecycle – Problem definition, data readiness, modelling, evaluation, deployment – A/B testing and model monitoring – ROI evaluation of ML projects – Build vs. Buy decisions – Responsible AI: fairness, transparency, explainability – Risk and governance in ML adoption – Manager's checklist for ML implementation.

TOTAL: 45 PERIODS

Learning Resources

1. Prediction Machines: The Simple Economics of Artificial Intelligence, Ajay Agrawal, Harvard Business Review Press, 2022.
2. Machine Learning for Managers: Paul Geertsema, Routledge, 2023.
3. The Hundred-Page Machine Learning Book, Andriy Burkov,Ingram Academy, 2019.

CARE College of Engineering (Autonomous) Trichy-620 009

4. Artificial Intelligence for Managers, Malay A. Upadhyay, Cengage/BPB, 2020.
5. Hands-On Machine Learning with Scikit-Learn, Aurélien Géron, Keras, and Tensor Flow, 3rd Edition, O'Reilly, 2023

Course Outcomes

At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the basic concepts, foundations, and applications of Artificial Intelligence.	Understand
CO2	Explain the fundamental concepts and types of Machine Learning in business contexts.	Apply
CO3	Identify and prepare business data suitable for machine learning applications.	Understand
CO4	Estimate the outcomes of supervised and unsupervised ML models for decision-making.	Apply
CO5	Evaluate ML project feasibility, ethical implications, and ROI for implementation.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	2	2	2	1	2
CO3	3	3	1	3	2
CO4	2	2	1	1	1
CO5	3	3	1	1	2
Avg.	**2.6**	**2.4**	**1.4**	**1.6**	**1.8**

P26BABA05	ENTERPRISE RESOURCE PLANNING	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of Enterprise Resource Planning systems and their role in organizations.
- To develop knowledge of ERP modules, business process integration, and implementation strategies.
- To enable students to analyze ERP implementation life cycle and associated challenges.
- To equip learners with skills to evaluate ERP solutions and manage post-implementation issues.
- To familiarize students with emerging trends such as cloud ERP, analytics, and digital integration.

UNIT I: INTRODUCTION (9)

Overview of enterprise systems – Evolution - Risks and benefits - Fundamental technology - warehouse management.

UNIT II: ERP SOLUTIONS AND FUNCTIONAL MODULES (9)

Overview of ERP software solutions, BPR, Project management, Functional modules- Organisational data, master data and document flow.

UNIT III: ERP IMPLEMENTATION (9)

Planning Evaluation and selection of ERP systems – Implementation life cycle – ERP implementation, Methodology and Frame work- Training – Data Migration. People Organization in implementation Consultants, Vendors and Employees.

UNIT IV: POST IMPLEMENTATION (9)

Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.

UNIT V: EMERGING TRENDS ON ERP (9)

Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics – Future trends in ERP systems-web enabled, Wireless technologies, cloud computing and Augmented reality.

TOTAL: 45 PERIODS

Learning Resources

1. Enterprise Resource Planning, Alexis Leon, A.K. Leon & V. K. Garg, McGraw Hill Education (India), 4th Ed., 2019
2. Integrated Business Processes with ERP Systems, Simha R. Magal & Jeffrey Word –Wiley, 3rd Ed., 2018
3. ERP: Concepts and Practice, PHI Learning, Vinod Kumar Garg & N. K. Venkitakrishnan – 2nd Ed., 2021
4. Enterprise Resource Planning, Rajesh Ray –McGraw Hill, 2nd Ed., 2022
5. Mission Critical: Realizing the Promise of Enterprise Systems, Thomas H. Davenport – Harvard Business Review Press, Revised Ed., 2018

E-Resources:

1. https://help.sap.com – SAP ERP Documentation and Learning Hub
2. https://www.oracle.com/erp/ – Oracle ERP Cloud Resources ″
3. https://docs.microsoft.com/en-us/dynamics365/ – Microsoft Dynamics 365 ERP ″
4. https://www.erpnext.com/ – Open Source ERP Tutorials ″
5. https://www.coursera.org/learn/enterprise-systems – Enterprise System Management
6. (Free Course) ″ https://www.tutorialspoint.com/erp/index.htm – ERP Fundamentals

Course Outcomes

At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the risk and benefits associated with Enterprise Resource Planning.	Understand
CO2	Explain the ERP solutions and functional modules	Understand
CO3	Describe the implementation environment	Understand
CO4	Explain the post implementation impact and maintenance of ERP	Understand
CO5	Compute emerging trends on ERP	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BABA06	BUSINESS ANALYSIS AND IT CONSULTING	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To course provides the knowledge and necessary skills for carrying out business analysis in IT domain
- To course provide learning to create business value using various techniques associated with business analysis
- The course discusses the practical nuances of IT consulting

UNIT I: INTRODUCTION AND ENTERPRISE ANALYSIS (9)

Trends in IS offshoring emerging business models - Goal setting - business analyst strategic role - creating and maintaining business architecture - feasibility studies determining project scope - preparing business case - initial risk assessment – Define Business Need - Assess Capability Gaps Determine Solution Approach - Define Solution Scope - Define Business Case preparing decision package.

UNIT II: BA PLANNING AND MONITORING (9)

Plan Business Analysis Approach - Conduct Stakeholder Analysis - Plan Business Analysis Activities - Plan Business Analysis Communication - Plan Requirements Management Process - Manage Business Analysis Performance - selecting and prioritizing projects - launching new projects - tracking project benefits.

UNIT III: BA ELICITATION AND COMMUNICATION (9)

Prepare for Elicitation - Conduct Elicitation Activity - Document Elicitation Results Confirm Elicitation Results.

UNIT IV: BA REQUIREMENTS ANALYSIS (9)

Prioritize Requirements - Organize Requirements - Specify and Model Requirements Define Assumptions and Constraints - Verify Requirements - Validate Requirements Manage Solution Scope and Requirements - Manage Requirements Traceability - Maintain Requirements for Reuse - Prepare Requirements Package - Communicate Requirements signoff.

UNIT V: BA TECHNIQUES AND COMPETENCIES (9)

Brainstorming - Business Rules Analysis - process modelling - Data Modeling Document Analysis - Functional Decomposition - Interface Analysis - Interviews Organization Modeling - Prototyping - Requirements Workshops - Root Cause Analysis - Scenarios and Use Cases - Sequence Diagrams - State Diagrams - Analytical Thinking and Problem Solving - Behavioral Characteristics - Business Knowledge - Communication Skills - Interaction Skills - Software Applications.

TOTAL: 45 PERIODS

Learning Resources

1. Business Analysis, Debra Paul, Donald Yeates, James Cadle, 4th Edition, BCS, 2020.
2. CBAP Certification and BABOK Study Guide, Hans Jonasson, 2024.
3. Business Analysis for Practitioners: A Practice Guide, PMI, 2024.
4. Management and IT Consulting in the Age of Gen AI, Sanjiva Shankar Dubey, 2025

Course Outcomes

At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain enterprise analysis concepts including business needs, feasibility analysis, solution scope, and preparation of business cases and decision packages.	Understand
CO2	Apply business analysis planning and monitoring techniques, including stakeholder analysis, project prioritization, communication planning, and performance tracking.	Apply
CO3	Demonstrate the ability to conduct requirements elicitation activities, document findings, and validate stakeholder requirements effectively.	Apply
CO4	Analyze and manage requirements through prioritization, modeling, validation, traceability, and preparation of requirement documentation for implementation.	Apply
CO5	Apply business analysis techniques and competencies such as process modeling, data modeling, prototyping, root cause analysis, and use case development to solve business problems.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Avg.	**2.4**	**2.6**	**1**	**1**	**2.2**

STREAM/SPECIALIZATION: OPERATIONS MANAGEMENT

P26BAOM01	SUPPLY CHAIN MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of supply chain management concepts and their strategic importance.
- To develop knowledge of supply chain network design, demand planning, and inventory management.
- To enable students to analyze logistics, transportation, and global supply chain operations.
- To equip learners with skills to evaluate supply chain performance and risk management strategies.
- To familiarize students with emerging trends such as digital supply chains, analytics, and sustainability.

UNITI: INTRODUCTION (9)

Supply Chain – Fundamentals, Evolution, Role in Economy, Importance, Decision Phases, Enablers & Drivers of Supply Chain Performance; Supply chain strategy; Supply Chain Performance Measures.

UNIT II: SUPPLY CHAIN NETWORK DESIGN (9)

Distribution Network Design – Role in supply chain, Influencing factors, design options, online sales and distribution network, Distribution Strategies; Network Design in supply chain – Role, influencing factors, framework for network design, Impact of uncertainty on Network Design.

UNIT III: PLANNING DEMAND, INVENTORY AND SUPPLY (9)

Managing supply chain cycle inventory and safety inventory - Uncertainty in the supply chain , Analyzing impact of supply chain redesign on the inventory, Risk Pooling, Managing inventory for short life-cycle products, multiple item -multiple location inventory management; Pricing and Revenue Management.

UNIT IV: LOGISTICS MANAGEMENT (9)

Transportation – Role, Modes and their characteristics, infrastructure and policies, transport documentation, design options, trade-offs in transportation design, intermodal transportation. Logistics outsourcing – catalysts, benefits, value proposition. 3PL, 4PL, 5PL, 6PL; International Logistics -objectives, importance in global economy, Characteristics of global supply chains, Incoterms.

UNIT V: SUPPLY CHAIN INNOVATION (9)

Supply Chain Integration, SC process restructuring, IT in Supply Chain; Agile Supply Chains, Legible supply chain, Green Supply Chain, Reverse Supply chain; Supply chain technology trends – AI, Advanced analytics, Internet of Things, Intelligent things, conversational systems, robotic process automation, immersive technologies, Block Chain – Case Studies

TOTAL: 45 PERIODS

Learning Resources

1. Supply Chain Management-Strategy Planning and Operation, Sunil Chopra, Peter Meindl and Dharam VirKalra, Pearson Education, Sixth Edition, 2016.
2. Supply Chain Management: Strategy, Planning and Operation, Sunil Chopra, Peter Meindl

and Dharam Vir Kalra, Pearson Publication, 2023
3. Supply Chain Management, Janat Shah, Pearson India, 2021
4. Logistics and Supply Chain Management, Martin Christopher, Pearson, 2022
5. Designing and Managing the Supply Chain, David Simchi-Levi, Philip Kaminsky and Edith Simchi Levi, McGraw Hill Publication, 2021
6. Supply Chain Analytics, Peter W. Robertson, Wiley Publication, 2020

E-Resources:

1. ″ MIT Center for Digital Business – https://mitsloan.mit.edu/LearningEdge ″
2. Coursera – Digital Transformation in Supply Chain: https://www.coursera.org ″
3. SCM Globe – Simulation Platform: https://www.scmglobe.com ″
4. NPTEL – IT for Supply Chain Management: https://nptel.ac.in ″
5. CIO.com – ERP & Digital Logistics Articles: https://www.cio.com

Course Outcomes

At the end of the course, the students will be able to		
CO	Course Outcome Statement	Knowledge Level
CO1	Discuss the fundamentals of supply chain	Understand
CO2	Explain the design supply chain networks to enhance supply chain performance	Understanding
CO3	Describe the plan demand based on inventory and supply	Understanding
CO4	Discuss the role of logistics in supply chain performance	Understanding
CO5	Illustrate the innovations for sustainable supply chains	Understanding

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

<table>
<tr><td rowspan="2">P26BAOM02</td><td rowspan="2">PROJECT MANAGEMENT</td><td>L</td><td>T</td><td>P</td><td>C</td></tr>
<tr><td>3</td><td>0</td><td>0</td><td>3</td></tr>
<tr><td colspan="6">COURSE OBJECTIVES:
• To provide a comprehensive understanding of project management concepts, tools, and techniques.
• To develop skills in project planning, scheduling, budgeting, and risk management.
• To enable students to apply network techniques such as PERT and CPM for project execution.
• To equip learners with knowledge of project organization, team management, and conflict resolution.
• To enhance the ability to monitor, control, and successfully complete projects.</td></tr>
<tr><td colspan="6">UNIT I: INTRODUCTION TO PROJECT MANAGEMENT (9)
Project Management – Definition –Goal - Lifecycles. Project Environments. Project Manager – Roles- Responsibilities and Selection.</td></tr>
<tr><td colspan="6">UNIT II: PLANNING, BUDGETING AND RISK MANAGEMENT (9)
The Planning Process – Work Break down Structure. Cost Estimating and Budgeting - Process, Summaries, schedules and forecasts. Managing risks - concepts, identification, assessment and response planning.</td></tr>
<tr><td colspan="6">UNIT III: SCHEDULING & RESOURCE ALLOCATION (9)
PERT & CPM Networks - Project durations and floats - Crashing – Resource loading and leveling. Simulation for resource allocation. Goldratt‟s Critical Chain.</td></tr>
<tr><td colspan="6">UNIT IV: PROJECT ORGANISATION & CONFLICT MANAGEMENT (9)
Formal Organisation Structure – Organisation Design – Types of project organizations. Conflict – Origin & Consequences. Project Teams. Managing conflict – Team methods for resolving conflict.</td></tr>
<tr><td colspan="6">UNIT V: CONTROL AND COMPLETION (9)
Project Control – Process, Monitoring, Internal and External control, Performance analysis, Performance Index Monitoring. Project Evaluation, Reporting and Termination. Project success and failure - Lessons.</td></tr>
<tr><td colspan="6" align="right">TOTAL: 45 PERIODS</td></tr>
</table>

Learning Resources

1. Project Management: A Systems Approach to Planning, Scheduling and Controlling, Harold Kerzner, 2022
2. Project Management, Clifford F. Gray and Erik W. Larson, McGraw Hill, 2021
3. Project Management, K. K. Chitkara, Tata McGraw Hill India, 2019
4. Project Management, R. Panneerselvam and P. Senthilkumar Project Management, PHI Learning, 2020
5. Project Management for Business and Technology, John M. Nicholas and Herman Steyn, Pearson 2021
6. Successful Project Management Cengage Learning, Jack Gido and James P. Clements, 2021

E-Resources:

1. Ministry of Road Transport and Highways: https://morth.nic.in ″
2. India Infrastructure Finance Company: https://www.iifcl.in ″
3. World Bank Infrastructure Data: https://ppi.worldbank.org ″
4. 4.CPHEEO Guidelines: http://cpheeo.gov.in ″
5. ISRO Bhuvan GIS Platform: https://bhuvan.nrsc.gov.in 167 ″
6. National Infrastructure Pipeline Portal: https://nipinvindia.gov.in

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the roles and responsibilities of a project manager	Understand
CO2	Estimate the projects plan and budget projects	Understand
CO3	Discuss the schedule and allocate resources to projects	Understand
CO4	Explain the various project organization and conflict management	Understand
CO5	Discuss the project control and preparation of reports	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	2
CO2	2	3	3	2	2
CO3	3	3	3	1	2
CO4	2	2	2	1	2
CO5	2	3	2	1	3
Average	2.2	2.8	2.4	1.4	2.2

P26BAOM03	PRODUCT MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To introduce the fundamental concepts of products, product levels, product life cycle, and product portfolio management.
- To develop understanding of new product development (NPD) processes, types, and the causes of new product failures
- To explain the significance of packaging, its types, features, strategies, and legal/ethical considerations.
- To enable students to gain knowledge about branding, brand types, strategies, brand development and brand switching.
- To familiarize students with product sales management, distribution systems, pricing, advertising, promotion, and international product marketing practices.

UNIT I: INTRODUCTION (9)

Product -Basic concept of product, levels, Product-Life- Cycle: Concept, strategies related to different stages of PLC. Product Portfolio: Concept, Importance, Competition & Product Strategy. Product portfolio: Concept, benefits of Product portfolio management.

UNIT II: NEW PRODUCT DEVELOPMENT (9)

Meaning and Importance of new product – Types of new product. Management of New Product Development Process -Stages of new product development-Reasons for failure of a new product. Minimum Viable Product (MVP) – UI/UX Design Fundamentals.

UNIT III: PACKAGING (9)

Meaning - Importance – types – Features- Factors influencing packaging decision. Packaging Strategies: Meaning Legal and Ethical aspects of packaging: Green packaging: Concept and importance. Product labelling: Meaning, types and importance.

UNIT IV: PRODUCT BRAND MANAGEMENT (9)

Brand: Meaning, functions and significance - types of brands – concept of branding. Branding strategies: Concept and types of branding strategies. Steps in brand development strategies. Product Brand switching.

UNIT V: PRODUCT SALES MANAGEMENT (9)

Product Sales Management -Product and Public Relations Service Product Marketing – Industrial Product Marketing Product Exports and International Marketing- Brand Name Plan - Pricing Systems - Product Distribution Systems -Advertising and Sales Promotion-Critical Success Factors in Brand Management.

TOTAL: 45 PERIODS

Learning Resources

1. New Products Management, Merle Crawford & Anthony Di Benedetto, McGraw Hill, 11th Edition, 2020
2. Innovation Management and New Product Development, Paul Trott, Pearson Education,7th Edition, 2020.
3. Product & Brand Management ,K. Venugopal Rao, Himalaya Publishing, Second edition 2022.
4. Product Lifecycle Management, Stark, John, Springer, 4th Edition, 2020.
5. Strategic Brand Management: Building, Measuring, and Managing Brand Equity, Kevin Lane Keller & Vanitha Swaminathan, Pearson Publication , 5th Global Edition, 2019.

6. New product development –A FMCG perspective, K Rajeshwari, Notion Press publishers, 2017

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the basic concepts of products, product levels, product life cycle strategies and product portfolio management	Understand
CO2	Construct the new product development process, types of new products, and identify reasons for product failure.	Apply
CO3	Analyze various packaging types, features, strategies, and interpret legal, ethical, and green packaging requirements.	Analyze
CO4	Apply concepts of branding, evaluate branding strategies, and describe the steps involved in brand development and brand switching.	Apply
CO5	Describe product sales management practices including pricing, distribution, advertising, international marketing, and key success factors in brand management	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	1	3	1	2	2
CO2	2	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	2	1	2
CO5	2	2	2	1	3
Average	**1.8**	**2.6**	**1.4**	**1.2**	**2.2**

P26BAOM04	QUALITY MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- Understand the fundamental principles and concepts of quality management in organizations.
- Explain various quality management practices, tools, and techniques used for continuous improvement.
- Apply quality control and quality assurance methods in manufacturing and service industries.
- Analyze the role of Total Quality Management (TQM) and standards such as ISO in achieving organizational excellence.
- Develop strategies for improving quality performance and ensuring customer satisfaction.

UNIT I: INTRODUCTION (9)

Introduction - Need for quality - Evolution of quality - Definition of quality. Concept of Quality – different perspectives. Concept of total Quality – Design, inputs, process and output - Attitude and involvement of top management. Customer Focus – customer perception - customer retention. Dimensions of product and service quality. Cost of quality

UNIT II: QUALITY MANAGEMENT PHILOSOPHIES AND PRICIPLES (9)

Quality Gurus - Crosby, Deming, Masaaki Imai, Feigenbaum, Ishikawa, Juran, Oakland, Shigeo Shingo, and Taguchi. Concepts of Quality circle, Japanese 5S principles and 8D methodology

UNIT III: STATISTICAL PROCESS CONTROL (9)

Statistical Process Control (SPC) – Meaning, Significance. construction of control charts for variables and attributes. Process capability – meaning, significance and measurement. Six sigma- concepts of process capability. Reliability concepts – definitions, reliability in series and parallel, product life characteristics curve. Total productive maintenance (TMP), Terotechnology. Business process Improvement (BPI) – principles, applications, reengineering process, benefits and limitations

UNIT IV: QUALITY TOOLS AND TECHNIQUES (9)

Quality Tools - The seven traditional tools of quality, New management tools. Six-sigma, Bench marking, Poka-yoke, Failure Mode Effect Analysis (FMEA) – reliability, failure rate, FMEA stages, design, process and documentation. Quality Function Deployment (QFD) – Benefits, house of quality. Taguchi - quality loss function, parameter and tolerance design, signal to noise ratio.

UNIT V: QUALITY MANAGEMENT SYSTEMS (9)

Introduction Quality management systems – IS/ISO 9004:2000 – Quality System –Elements, Documentation guidelines for performance improvements. Quality Audits - QS 9000 – ISO 14000 – Concepts. TQM -culture, framework, benefits, awareness and obstacles. Employee involvement – Motivation, empowerment, Team and Teamwork, Recognition and Reward, Performance appraisal. Supplier - Selection, Partnering, Supplier Rating.

TOTAL: 45 PERIODS

Learning Resources

1. Managing Quality: Integrating the Supply Chain, S. Thomas Foster, John W. Gardner, 7th Edition, Wiley, 2022
2. Total Quality Management, Dale H. Besterfield, Carol Besterfield-Michna, Glen H.

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Besterfield, Mary Besterfield-Sacre, Hemant Urdhwareshe, Rashmi Urdhwareshe, Pearson Education, 2018
3. Quality Management for Organizational Excellence, D. L. Goetsch, S. B. Davis, 9th Edition, Pearson Education, 2020
4. Juran's Quality Handbook: The Complete Guide to Performance Excellence, Joseph M. Juran, Joseph A. De Feo, 7th Edition, McGraw Hill, 2017
5. Managing Quality: An Essential Guide and Resource Gateway, Barrie G. Dale, David Bamford, Ton van der Wiele, 6th Edition, Wiley, 2016

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcomes Statements**	**Knowledge Level**
CO1	Explain the fundamental concepts of quality, including evolution, dimensions, cost of quality, and customer focus in organizational contexts.	Understand
CO2	Interpret the principles and philosophies of quality management proposed by quality gurus and apply tools such as Quality Circles, 5S, and 8D in problem-solving scenarios.	Understand
CO3	Apply Statistical Process Control (SPC) techniques, construct control charts, and evaluate process capability and reliability in manufacturing and service systems.	Apply
CO4	Analyze and utilize quality tools and techniques such as Seven QC tools, Six Sigma, FMEA, QFD, and Taguchi methods for process improvement and defect reduction.	Analyze
CO5	Evaluate quality management systems, including ISO standards, audits, TQM practices, and supplier management strategies to enhance organizational performance.	Evaluate

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	1	3	1	2	2
CO2	2	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	2	1	2
CO5	2	2	2	1	3
Average	1.8	2.6	1.4	1.2	2.2

P26BAOM04	SERVICES OPERATIONS MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of service operations management and its role in the economy.
- To develop knowledge of service design, delivery systems, and service quality management.
- To enable students to analyze service facility location, layout, and operational efficiency.
- To equip learners with techniques for managing demand, capacity, and customer experience.
- To enhance decision-making skills using service analytics and process improvement tools.

UNIT I: INTRODUCTION (9)

Services – Importance, role in economy, service sector – nature, growth. Nature of services - distinctive characteristics, Service Package, Service classification, service-dominant logic, open systems view. Service Strategy –Strategic service vision, competitive environment, generic strategies, winning customers; Role of information technology – Case Studies.

UNIT II: SERVICE DESIGN (9)

New Service Development – Design elements – Service Blue-printing - process structure – generic approaches. Service Encounter – triad, creating service orientation, service profit chain; Front-office Back-office Interface– service decoupling. Technology in services – self-service, automation, ecommerce, e-business, technology innovations.

UNIT III: SERVICE QUALITY (9)

Service Quality- Dimensions, Service Quality Gap Model; Measuring Service Quality – SERVQUAL, Walk-through Audit, Quality service by design, Service Recovery, Service Guarantees. Process Improvement –productivity improvement - DEA, quality tools, benchmarking, Quality improvement programs – Case Studies.

UNIT IV: SERVICE FACILITY (9)

Supporting facility -Service scapes, Facility design – nature, objectives, process analysis, Service facility layout. Service Facility Location – considerations, facility location techniques – metropolitan metric, Euclidean, centre of gravity, retail outlet location, location set covering problem. Vehicle routing and Scheduling – Case Studies.

UNIT V: MANAGING CAPACITY AND DEMAND (9)

Managing Demand – strategies; Managing capacity – basic strategies, supply management tactics, operations planning and control; Yield management; Inventory Management in Services– Retail Discounting Model, Newsvendor Model; Managing Waiting Lines –Queuing systems, psychology of waiting; Managing for growth- expansion strategies, franchising, globalization – Case Studies.

TOTAL: 45 PERIODS

Learning Resources

1. Operations, Strategy, Information Technology,McGraw-Hill Education – 8th Edition 2018.
2. Service Management – Operations, Strategy, Information Technology, Fitzsimmons, J.A., Fitzsimmons, M.J., & Bordoloi, S. McGraw-Hill Education, 9th Ed., 2024.
3. Successful Service Operations Management, Metters, R.D. Cengage Learning, 3rd Ed., 2021.
4. Service Management, Haksever, C., & Render, B. Pearson Education, 3rd Ed., 2022.

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5. Service Operations Management, Johnston, R., & Clark, G, Pearson, 4th Ed., 2020.
6. Services Marketing: People, Technology, Strategy, Lovelock, C., & Wirtz, J, Pearson Education, 9th Ed., 2023.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the nature of service operations	Understand
CO2	Discuss the design services and its technologies	Understand
CO3	Illustrate the quality in service design and delivery	Understand
CO4	Apply the models to design service facility	Understand
CO5	Explain the ways to sustain in service business	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	2
CO2	2	2	1	2	3
CO3	2	3	1	2	2
CO4	2	2	1	2	2
CO5	3	3	2	1	2
Average	2.4	2.6	1.2	1.8	2.2

P26BAOM06	LOGISTICS MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of logistics management, its evolution, concepts, and significance in modern business environments
- To develop knowledge of logistics activities including warehousing, inventory management, transportation, customer service, procurement, and information handling.
- To familiarize students with transportation systems, legal frameworks, cost structures, and contemporary trends in domestic and international transport.
- To enable students to analyse logistics systems using modelling and simulation tools and understand logistics–supply chain integration.
- To build practical knowledge on materials handling, packaging, order processing, and related technologies to enhance logistics efficiency and customer satisfaction.

UNIT I: INTRODUCTION (9)

Logistics management - Definition, Evolution, Importance. The concepts of logistics. Logistics relationships. Functional applications – HR, Marketing, Operations, Finance, IT. Logistics Organization - Logistics in different industries

UNIT II: WAREHOUSING AND INVENTORY MANAGEMENT (9)

Logistics Activities: – functions, objectives, solution. Customer Service, Warehousing and Material Storage, Material Handling, order processing, information handling and procurement Transportation and Packaging. Third party and fourth party logistics - Reverse Logistics - Global Logistics

UNIT III: TRANSPORTATION AND OUTSOURCING (9)

Transportation management: Legal types - Modes of transportation –Transport mode selection –methods – transport costs – rate profiles–transport regulations– intra and interstate transport of goods. Transport Industry in India- International Transport – Rail ways, Road transport, Ports – Transport Security - Trends in Modern Transport.

UNIT IV: LOGISTICS SYSTEMS (9)

Modelling logistics systems - Simulation of logistic systems - Dimensions of Logistics & SCM – The Macro perspective and the macro dimension – Logistic system analysis strategy, Logistical Operations Integration, Customer service – Supply Chain Relationships.

UNIT V: MATERIALS HANDLING & PACKAGING (9)

Role of Material Handling in Logistics -Order processing and Unitization. Defining Order Processing – order acquisition –order entry–document processing – status reporting – factors affecting processing time – Customer service. Consumer Vs Logistical Packaging -Unitization – functions of Packaging –concept of unitization – Palletization Containerization – Costs of packaging – designing a package – packaging materials – choosing right materials – Contain in India.

TOTAL: 45 PERIODS

Learning Resources

1. The Management of Business Logistics: A Supply Chain Perspective, Bardi & Langley, Coyle, Indian Edition, 2017
2. Global Logistics & Supply Chain Management, John Mangan, Chandra Lalwani & Agustina Calatayud, 4th Edition, 2021.

3. Global Logistics: New Directions in Supply Chain Management, Donald Waters & Stephen Rinsler, 8 th edition, 2019.
4. “Supply Chain Logistics Management” Bowersox, Closs & Cooper, McGraw Hill: Publisher, 5 th edition, 2024.
5. Essentials of Logistics and Supply Chain Management, Dr. D. K. Agrawal, Macmillan / New Age International: Publishers, 2019.
6. “Warehousing and Distribution Science” John Bartholdi & Steven Hackman, 2nd edition 2020.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the fundamentals, evolution, and importance of logistics management and its role across business functions.	Understand
CO2	Describe logistics activities such as warehousing, inventory control, customer service, packaging, and evaluate their contribution to organizational performance	Understand
CO3	Develop various modes of transportation, cost factors, legal frameworks, and current trends in Indian and global transport systems	Apply
CO4	Apply modelling and simulation concepts to logistics systems and evaluate supply chain relationships and logistical operations.	Apply
CO5	Compute the knowledge of materials handling, packaging design, unitization, and order processing to optimize logistics processes and customer service levels.	Apply

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	1	3	2	2	2
CO2	2	3	3	2	2
CO3	3	3	3	1	2
CO4	1	2	2	1	2
CO5	2	3	2	1	3
Average	**1.8**	**2.8**	**2.4**	**1.4**	**2.2**

SECTORAL SPECIALIZATIONS: HEALTHCARE MANAGEMENT

P26BAHC01	MATERIALS MANAGEMENT AND LOGISTICS IN HEALTHCARE	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide a comprehensive understanding of materials and logistics management in healthcare systems.
- To develop knowledge of hospital inventory management, purchasing, and warehousing practices.
- To enable students to analyze logistics strategies and supply chain operations in healthcare organizations.
- To equip learners with skills in supplier evaluation, cost control, and performance measurement.
- To enhance decision-making for efficient hospital supply chain and resource utilization.

UNIT I: INTRODUCTION TO MATERIALS MANAGEMENT (9)

Introduction to principles of material management, Hospital Inventory management: Definition of inventory Need, objectives, scope & importance, impact on profitability of the organization, types of hospital inventories, categories of materials in hospitals, classification of unexpendable items, hospital maintenance items, spare parts stocking policies for capital items

UNIT II: LOGISTICS ROLE IN THE ECONOMY AND THE FIRM (9)

Logistics Management – Role in the economy and in firms – Development of Logistics Management – the Integrated Logistics Management Concept – Logistics and the Marketing function – The total cost concept – Logistics and corporate Profit performance – the financial Impact of Logistics Decision – Conducting a Logistics and Marketing audit – developing a Logistics Strategy - Future Challenges.

UNIT III: PURCHASING (9)

Purchasing activities – supplier Selection and Evaluation – Quality Control – forward Buying just – in – time Purchasing- Benefits of JIT Purchasing Research and Planning – Purchasing cost management Measurement and Evaluation of Purchasing Performance – Order processing and Information systems – Customer order cycle – the communications function – Advanced order Processing systems – Inside Sales /Telemarketing Electronic Data Interchange (EDI) – Integrated Order Processing and the company's Logistics.

UNIT IV: WAREHOUSING (9)

Nature and Importance of Warehousing – type of Warehousing – A comparison of Public and Private warehousing – Warehousing Operations Facility Development – size and Number of Warehouses – Location Analysis – Warehouse Layout and Design – Package – computer Technology, Information and Warehouse Management – Warehouse Productivity Measurement – Improving Warehouse Productivity.

UNIT V: INTRODUCTION TO SUPPLY CHAIN MANAGEMENT (9)

Concept of SCM, components, hospital supply chain management, global competitive scenario. Hospital Stores Organization, Objective, function, relevance and importance of store keeping, functions and responsibilities of stores, duties and responsibilities of store keeper, elements of good stores organization, stores organization in hospitals: centralized and decentralized stores.

TOTAL: 45 PERIODS

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Learning Resources

1. Materials and Logistics Management, L. C. Jhamb, Everest Publishing House, 2018.
2. Hospital Stores Management, Shakti Gupta & Sunil Kant, Jaypee Brothers Medical Publishers, 2019.
3. Hospital Administration and Management, S. L. Goel & R. Kumar, Deep and Deep Publications, 2020.
4. Healthcare Supply Chain Management, Hokey Min, Wiley, 2019.
5. Managing a Modern Hospital, A. V. Srinivasan, Sage Publications India, 2018.
6. Purchasing and Materials Management, P. Gopalakrishnan, McGraw Hill India, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the basics of Materials Management in health service	Understand
CO2	Describe the importance of Logistics Role in the Economy and the Firm	Understand
CO3	Apply the Purchasing strategy in health care material management	Apply
CO4	Apply the Warehouse operations in Health care	Apply
CO5	Discuss the importance of Supply Chain Management in health care	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC02	MANAGEMENT OF HEALTHCARE SERVICES	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide an understanding of various services in hospitals and healthcare institutions.
- To equip students with skills to manage front office operations, patient admission/discharge, and communication systems.
- To develop knowledge of hospital record management, medical statistics, and automated hospital information systems.
- To introduce laboratory services, housekeeping, waste disposal, and sanitation management in hospitals.
- To understand pharmacy management, ICU operations, and coordination among medical and non-medical personnel.

UNIT I: INTRODUCTION (9)

Functional areas in hospital services management – Difference types of hospital services – Human capital in hospitals- Specific characteristics of hospital services- Principles of hospital planning and execution-Government – Private – Corporate and public hospital systems in India.

UNIT II: MANAGING FRONT OFFICE (9)

Front office –Administration of outpatient and inpatient –Emergency services in hospital-Communication system – Admission and discharge procedures.

UNIT III: RECORDS MANAGEMENT (9)

Significance of record keeping- Types of medical records – Management – Medical statistics – Materials records –Creation and management of patient records and personnel records – Discharge records – Legal and other operational records- Automated hospital services management solution.

UNIT IV: LABORATORY SERVICES AND HOUSE KEEPING (9)

Need for managing laboratories- Classification, functions and management of laboratories – Accreditation of laboratory procedure and process – Case studies. Sanitation of hospital environment Basic and special cleaning –Odor control Waste disposal –Safety – Pest control-Interior decoration – outsourcing hospital housekeeping services.

UNIT V: PHARMACY AND INTENSIVE CARE (9)

Location, layout and functions duties of Chief pharmacist – Equipment and facilities – Pricing –Drug information centre. Types of ICU – Functions and Objective – Daily Scheduling –Safety issues and other problems – Major responsibilities of nursing service – Relationship with non-nursing personnel.

TOTAL: 45 PERIODS

Learning Resources

1. Hospital Supportive Services, S. L. Goel & R. Kumar, Deep and Deep Publications, New Delhi, 2019.
2. Hospital and Health Services Administration, Syed Amin Tabish, Jaypee Brothers Medical Publishers, New Delhi, 2018.
3. Designing for Total Quality in Healthcare, G. D. Kunders, Prism Books Pvt. Ltd, Bangalore, 2018.

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4. Hospital Administration and Management, K. Aswathappa, Himalaya Publishing House, Mumbai, 2020.
5. Healthcare Services Management, R. K. Sharma, McGraw Hill India, 2019.
6. Management of Hospital Services, P. Gopalakrishnan, McGraw Hill India, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the hospital services and human capital in hospital services	Understand
CO2	Describing the front office management in hospital sectors	Understand
CO3	Describe the medical records management	Understand
CO4	Discuss the laboratory services and housekeeping	Understand
CO5	Describe the pharmacy and intensive care	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC03	HEALTH INSURANCE	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To provide an understanding of health insurance products, design, and development.
- To explain the different types of health insurance policies in India and internationally.
- To familiarize students with the regulatory framework including the Insurance Act, IRDA, and claims management.
- To impart knowledge on marketing, distribution, and servicing of health insurance products.
- To introduce actuarial principles, premium setting, and application of insurance models.

UNIT I: INTRODUCTION (9)

History of Health Insurance, Principles of Health Insurance, Health Insurance Products, Product design, Development and Evaluation, current trends in Health Insurance - International and Indian scenario.

UNIT II: CLASSIFICATION OF HEALTH INSURANCE (9)

Concepts of insurance, life and nonlife, Public & private health insurance, Individual medi claim policy, domiciliary hospitalization, proposal questionnaire, Bhavishya Arogya policy, Jan Arogya Bima Policy, Cancer Insurance, Group Mediclaim Policy

UNIT III: REGULATION AND OPERATIONS IN HEALTH INSURANCE (9)

The Insurance Act1938, IRDA- 1999, Introduction to Claims management, significance of claims settlement, nature of claims from various classes of insurance, role of Third Party Administrators.

UNIT IV: MARKETING AND SERVICING OF HEALTH INSURANCE (9)

Different elements of insurance marketing, uniqueness of insurance markets, distribution, Channels for selling insurance, agents, insurance broker, consultants, Banking outlets, Role of IRDA in supervising promotional activities.

UNIT V: ACTUARIAL PRINCIPLES AND PREMIUM SETTING (9)

Actuarial Principles – Demography – Survival distributions and life tables – Interest and life contingencies – Loss distribution – Principles of Ratemaking - Data required for Ratemaking – Insurance Models – Application of Models – Current Developments. (Salient Features of above topics)

TOTAL: 45 PERIODS

Course Outcomes

1. Life and Health Insurance Kenneth Black Jr. & Harold D. Skipper Jr, Pearson Education, New Delhi, 2019.
2. Health Insurance, Dr. P. K. Gupta, Himalaya Publishing House, Mumbai, 2018.
3. Health Insurance and Risk Management, S. K. Sharma, Health Insurance and Risk Management, McGraw Hill India, New Delhi, 2020.
4. Health Insurance Principles and Practices, I. M. Pandey, Vikas Publishing House, New Delhi, 2018.
5. Health Insurance Products and Marketing, Taxmann R. K. Mishra, Publications, New Delhi, 2019.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the Health insurance policies and procedures	Understand
CO2	Explain the classifications of health insurance	Understand
CO3	Determine the regulations and operations in health insurance	Apply
CO4	Develop the different distribution channels in selling insurance	Apply
CO5	Estimate the actuarial principles and ratemaking	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC04	LEGAL ASPECTS OF HEALTHCARE	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand laws relating to health services, hospital administration, and corporate liability.
- To learn about legal issues concerning nursing, medical staff, licensure, and patient rights.
- To understand information management, patient consent, and legal reporting requirements in healthcare.
- To study protection laws, patient rights, occupational safety, and AIDS-related legal considerations.
- To explore ethics, malpractice, insurance, labor relations, and public policy issues in healthcare organizations.

UNIT I: INTRODUCTION (9)

Introduction to law – Sources of law – Contract and antitrust – Purpose of contract – Types of contracts – Legality of object – Conditions – Remedies – Contracts of Adhesion – Employment contracts – Restraint of trade – Civil procedure and trial practice – Discovery and examination before trail – Memorandum of law – Evidence – Jury deliberation and determination – Damages – Appeals – Execution of judgments – Corporate liability – Authority of health care corporation – Duties of health care corporations.

UNIT II: PERSONNEL (9)

Medical staff – Organization – Privileges – Bylaws – Reappointments – Physician-patient relationship – Nursing and law – Practice of nursing – Nurse licensure – Nurse practice roles - Liability by departments and health care professionals – Ambulatory care centers – Emergency departments – Certification of Health care professionals – Licensing Health care professionals.

UNIT III: INFORMATION MANAGEMENT (9)

Introduction – Managing information – Patient consent – Consent definition – Patient self-determination act – Proof of consent – Refusal of treatment – Statutory consent – Consent and judicial intervention – Defence and failure to inform - Legal reporting requirements – Child abuse – Communicable diseases – Births and deaths – Risk management and incident reporting.

UNIT IV: PROTECTION (9)

Issues of Procreation – Circuit and district court decisions – Wrongful birth, life, and conception – Patient rights and responsibilities – Patient rights – Admission – Discharge – Transfer – Patient bill of rights – Patient responsibilities – Patient Advocacy – Acquired immune deficiency syndrome – AIDS and health care workers – AIDS and the right to know – The right to treatment – News media and confidentiality – Negligence – Occupational safety and health act..

UNIT V: ETHICS (9)

Health care ethics – Ethics committee – End of life issues – Organ donations – Malpractice insurance - Insurance policy – Liability of professional – Medical Liability Insurance – Self insurance – Medical staff insurance coverage – Labour relations – Unions and health care organization – Labour rights – Patients rights during labour disputes – Employment discipline and discharge – Public policy issues – Interference with employment activities – Fairnes

TOTAL: 45 PERIODS

Learning Resources

1. Legal Aspects of Health Care, George D. Pozgar, Jones and Bartlett Publishers, Inc, New Delhi, 2018.
2. Health Care Law and Ethics, P. K. Gupta, CBS Publishers, New Delhi, 2019.
3. Hospital Administration and Legal Aspects, Jaypee R. K. Mishra, Brothers Medical Publishers, New Delhi, 2020.
4. Healthcare Management and Legal Issues I. M. Pandey, Vikas Publishing House, New Delhi, 2018.
5. Medical Law and Ethics, Wolters Kluwer India, S. K. Sharma, New Delhi, 2019.
6. Legal Aspects of Health Information Management, Dana C. McWay, Thomson Delmar Learning, New Delhi, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the Legal Frameworks in Healthcare	Understand
CO2	Apply Effective Personnel Management in Healthcare	Apply
CO3	Develop Proficient Information Management and Legal Reporting	Apply
CO4	Describe Advocacy and Protection of Patient Rights	Understand
CO5	Develop Ethical Decision-Making and Liability Management	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	2.4	2.6	1	1	2.2

P26BAHC05	INTERNATIONAL HEALTHCARE MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the international healthcare scenario and global health delivery systems.
- To analyze healthcare financing, health sector reforms, and lessons from different countries.
- To examine systems of healthcare delivery and regulatory compliance across nations.
- To learn about Intellectual Property Rights, TRIPS, and international patent and trademark systems.
- To study health policy, quality of care, access to healthcare, and regulatory frameworks in a global context.

UNIT I: HEALTHCARE – A GLOBAL PERSPECTIVE (9)

Healthcare challenges – a global perspective- Wide gap in healthcare delivery – Role of International agencies - Healthcare financing in developed and developing countries – Developing National health Accounts – application in developing countries.

UNIT II: THE REFORMS OF HEALTHCARE SYSTEM (9)

Evolutionary reform (Italy, Portugal, Greece, Australia, etc) in Healthcare- Structural reforms in Healthcare (New Zealand, Sweden, Switzerland and United States etc.) International convergence in Health care system – Health sector reforms, lessons from different countries.

UNIT III: SYSTEMS OF HEALTH CARE DELIVERY (9)

Basic components of health services – Transition from traditional insurance to managed care – Trends and Directions – Significance for health care practitioners and policy makers – Complying with regulations – Health care systems in other countries

UNIT IV: INTELLECTUAL PROPERTY RIGHTS - TRIPS – IPR (9)

The Patent Cooperation Treaty (PCT) – PCT system – PCT for product design – World Intellectual Property Organisation (WIPO) and its role in new patent regime – International Registration of Trademarks

UNIT V: HEALTH POLICY (9)

Health policy – Definition – Different forms of Health policies - Regulatory tools – government as a subsidiary to the private sector – Reforms in the healthcare sector – Decentralized role of the States – Access to healthcare – providers – in rural areas, low income segments – Cost of Care - Quality of care.

TOTAL: 45 PERIODS

Learning Resources

1. International Health Care Management, Leiyu Shi & Douglas A. Singh, Oxford University Press, New Delhi, 2018.
2. Global Health Policy and Management, R. K. Mishra, Jaypee Brothers Medical Publishers, New Delhi, 2020.
3. International Health Systems, CBS Publishers, P. K. Gupta, New Delhi, 2019.
4. Health Care Management: International Perspective, I. M. Pandey, Vikas Publishing House, New Delhi, 2018.
5. Global Health Governance, S. K. Sharma, Wolters Kluwer India, New Delhi, 2019.
6. Textbook of Preventive and Social Medicine, J. E. Park, Banarsidas Bhanot, New Delhi, 2018.

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Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe Global Healthcare Challenges	Understand
CO2	Apply Healthcare Reforms	Apply
CO3	Evaluate the basic components of health services and the transition from traditional insurance to managed care	Apply
CO4	Explain the significance of intellectual property rights (IPR) in healthcare	Understand
CO5	Discuss the use of regulatory tools and the role of government as a subsidiary to the private sector in healthcare.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC06	MEDICAL EQUIPMENT MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the operations and maintenance aspects of medical equipment in hospitals.
- To optimize resource utilization while managing medical equipment.
- To learn about procurement, commissioning, and replacement policies for medical equipment.
- To study technology management, including AI, robotics, and telemedicine applications in healthcare.
- To implement maintenance strategies, quality control, predictive maintenance, and cost management of hospital equipment.

UNIT I: INTRODUCTION TO MEDICAL EQUIPMENT (9)

List of common medical equipment's, Justification of purchase proposal, hospital need assessment, Equipment selection guideline, estimation of cost and planning, purchase, installation, commissioning, Replacement and buy back policy, International and indigenous standards

UNIT II: OPERATIONS STRATEGY (9)

Operations strategy a competitive tool, elements, technology selection and process: development, developing operations strategy. Operations of clinical services, supportive services, and administrative services general introduction to the various specialties, super specialties and other subspecialties.

UNIT III: VALUE MANAGEMENT (9)

Value engineering, value analysis, quality control, applications in hospital.

UNIT IV: TECHNOLOGY MANAGEMENT IN HOSPITALS (9)

Evolution of technology in hospitals, advanced technology in diagnostics and therapeutics, telemedicine concepts and applications, artificial intelligence and robotics in Healthcare.

UNIT V: MAINTENANCE MANAGEMENT (9)

Objectives, types of maintenance systems, equipment maintenance, quality and reliability, equipment history and documents, maintenance planning, maintenance information system, maintenance and monitoring of biomedical equipment, predictive maintenance, equipment availability, spares management, replacement policy, depreciation and loss of value, economic life, costing, cost of standby, maintenance in hospital. Bio-Medical Technology, application in hospital environment, calibration tests, maintenance features, hazards

TOTAL: 45 PERIODS

Learning Resources

1. Medical Technology Management in Hospitals, Response Books, A. V. Srinivasan, New Delhi, 2018.
2. Operations Management in Healthcare, I. M. Pandey, Vikas Publishing House, New Delhi, 2018.
3. Hospital Equipment and Maintenance Management, R. K. Gupta, Jaypee Brothers, New Delhi, 2019.

4. Modern Production and Operations Management, Elwood S. Buffa & Rakesh K. Sarin, John Wiley India, New Delhi, 2018.
5. Hospital Equipment Planning and Maintenance Sunita Gupta, PHI Learning, New Delhi, 2020.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Develop the skills to create comprehensive lists of common medical equipment, justify purchase proposals, and conduct hospital need assessments.	Apply
CO2	Explain the role of operations strategy as a competitive tool and its key elements.	Understand
CO3	Apply value engineering and value analysis principles to improve hospital operations.	Apply
CO4	Examine the evolution of technology in hospitals, including advanced diagnostic and therapeutic technologies.	Apply
CO5	Discuss the objectives and types of maintenance systems, including equipment maintenance, quality and reliability, and the importance of maintaining equipment history and documents.	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC07	MEDICAL TOURISM	L	T	P	C
		3	0	0	3

COURSE OBJECTIVES:

- To understand the significance of medical tourism as an industry.
- To analyze the role of government, private sector, and voluntary agencies in promoting medical tourism.
- To learn marketing strategies for attracting and retaining national and international medical tourists.
- To develop communication strategies for medical tourists, including relationship management.
- To explore emerging trends and stakeholder management in medical tourism.

UNIT I: INTRODUCTION (9)

Medical tourism – significance- Medical tourism as industry Medical tourism destinations – Types and flow of medical tourists- Factors influencing choice of medical tourism destinations.

UNIT II: MACRO PERSPECTIVE (9)

Effects of medical tourism in nation's economy – development of supporting services for medical tourism – role of government – Private sector – voluntary agencies in promotion of medical tourism

UNIT III: MARKETING STRATEGY (9)

Strategy formulation to attract and retain national and global medical tourists – Positioning of Indian medical services –Traditional and nontraditional – Pricing of Medical Services.

UNIT IV: COMMUNICATION (9)

Integrated communication for medical tourists – Online and offline communications – Relationship management with medical tourists.

UNIT V: EMERGING TRENDS (9)

Understanding Medical tourist satisfaction – Protecting stakeholder's interests in medical - tourism – Emerging trends.

TOTAL: 45 PERIODS

Learning Resources

1. Medical Tourism Management, R. K. Gupta, PHI Learning, New Delhi, 2018.
2. Healthcare Services Marketing and Tourism, I. M. Pandey, Vikas Publishing House, New Delhi, 2018.
3. Medical Tourism and Hospital Management, Sunita Sharma, Jaypee Brothers, New Delhi, 2019.
4. International Trends in Healthcare Tourism, A. V. Srinivasan, Response Books, New Delhi, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Describe the importance of Medical Tourism	Understand
CO2	Establish the norms and procedure of medical tourism at macro level	Understand
CO3	Explain the marketing strategies adopted in medical tourism	Understand
CO4	Discuss the communication system adopted in medical tourism	Understand
CO5	Establish the recent trends in medical tourism	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	**2.4**	**2.6**	**1**	**1**	**2.2**

P26BAHC08	MEDICAL WASTE MANAGEMENT	L	T	P	C
		3	0	0	3

COURSE OBJECTIVE:

- To understand the types of health care waste and their classification.
- To study legal guidelines and policies for biomedical waste management.
- To learn proper generation, segregation, and color coding of biomedical wastes.
- To understand transportation, treatment, and disposal techniques for hospital waste.
- To analyze management issues including safety practices, record maintenance, and budget allocation in hospital waste management

UNIT I: INTRODUCTION (9)

Introduction – Definition – general and hazardous health care waste – infectious waste – genotoxic waste – waste sharps – bio medical waste – categories – composition of bio medical waste – specification of materials – sources – hospitals – health care establishments – others

UNIT II: IMPACTS & LEGISLATION AND POLICIES (9)

Health impacts – direct and indirect hazards – potential hazards – basic information – infection – infection agents – legislation and policies – bio medical waste handling – rules – CPCB guidelines – BARC guidelines – radioactive waste disposal – WHO guidelines – management in developing countries

UNIT III: GENERATION AND SEGREGATION (9)

Color coding – yellow, red – blue, white – contents of waste bag – label – biomedical waste – minimize – collection and handling – infection control system – needle sticks injury – hospital policy - segregation – decontaminating – disinfection unit – autoclaving – sharp waste containers – shredding – incrimination – biomedical symbol – microwave – hydropulbing – plasma torch

UNIT IV: TRANSPORTATION, TREATMENT AND DISPOSAL (9)

Central storage - Onsite pre treatment – mechanical treatment – chemical disinfection – offsite transportation – offsite and onsite – treatment – common treatment – liquid waste treatment – Conventional treatment – wet thermal technology – incineration – alternative treatment technology – microwave technology - rotaclave system – hydroclave – ETP – process electron beam treatment – plasma pyrolysis – gastification systems - non infectious waste – treatment – composting – rotating jumbling system – French composting - vermi composting – disposal – sharp disposal – deep burial – secured landfill

UNIT V: MANAGEMENT ISSUES (9)

Waste minimization – recycling – re use – health and safety practices – protective equipments usage – occupational health programmers – safety – emergency practices – management – non clinical support devices – hospital waste management – budget allocation – maintenance – records – annual reports

TOTAL: 45 PERIODS

Learning Resources

1. Medical Waste Management Practices, P. Gopalakrishnan, Tata McGraw Hill, New Delhi, 2018.
2. Hospital Operations and Waste Management, I. M. Pandey, Vikas Publishing House, New Delhi, 2018.

3. Biomedical Waste Management, S. K. Gupta, PHI Learning, New Delhi, 2019.
4. Healthcare Waste Management and Safety Practices, Sunita Sharma, Jaypee Brothers, New Delhi, 2018.

Course Outcomes

Course Outcomes: At the end of the course, the students will be able to		
CO	**Course Outcome Statement**	**Knowledge Level**
CO1	Explain the waste management basics in medical sector	Understand
CO2	Describe the legal practices in medical	Understand
CO3	Explain generation and segregation process of waste in medical operations	Understand
CO4	Determine the Transportation, Treatment and disposal of medical waste	Understand
CO5	Discuss the medical management issues	Understand

Course Articulation Matrix

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	2
CO2	3	3	1	1	3
CO3	2	3	1	1	1
CO4	2	2	1	1	2
CO5	3	2	1	1	3
Average	2.4	2.6	1	1	2.2