ANNA UNIVERSITY, CHENNAI

POSTGRADUATE CURRICULUM (NON-AUTONOMOUS AFFILIATED INSTITUTIONS)

Programme: Master of Business Administration **Regulations:** 2025

Abbreviations:

BS – Basic Science (Mathematics, Physics, Chemistry)

ES – Engineering Science (General (**G**), Programme Core (**PC**), Programme Elective (**PE**)

SD – Skill Development

SL – Self Learning

OE – Open Elective

L – Laboratory Course

T – Theory

LIT – Laboratory Integrated Theory

PW – Project Work

TCP – Total Contact Period(s)

Semester – I

S. No.	Course Code	Course Title	Type	Periods per week			Total Contact Periods	Credits	Category
				L	T	P			
1.	MB25C01	Statistics for Management	T	3	1	0	4	4	ES (PC)
2.	MB25C02	Management Concepts and Organizational Behavior	T	4	0	0	4	4	ES (PC)
3.	MB25C03	Managerial Economics	T	4	0	0	4	4	ES (PC)
4.	MB25101	Accounting for Decision Making	T	3	1	0	4	4	ES (PC)
5	MB25C04	Legal Aspects of Business	T	4	0	0	4	4	ES (PC)
6.	MB25102	Information Management	T	4	0	0	4	4	ES (PC)
7.	-	Non-Functional Elective	T	3	0	0	3	3	ES (PE)
8.	MB25103	Indian ethos and Business Ethics	L	0	0	4	4	2	--
9.	MB25C05	Contemporary Business Communication	L	0	0	4	4	2	--
Total Credits							**35**	**31**	

NOTE: In the first semester students need to choose one elective from the Non-Functional stream.

Semester – II

S. No.	Course Code	Course Title	Type	Periods per week			Total Contact Periods	Credits	Category
				L	T	P			
1.	MB25C07	Applied Operations Research	T	3	1	0	4	4	ES (PC)
2.	MB25201	Financial Management	T	3	1	0	4	4	ES (PC)
3.	MB25C09	Human Resource Management	T	4	0	0	4	4	ES (PC)
4.	MB25C11	Operations Management	T	3	1	0	4	4	ES (PC)
5	MB25C08	Business Research Methods	T	3	1	0	4	4	ES (PC)
6.	MB25202	Business Analytics	T	4	0	0	4	4	ES (PC)
7.	MB25C10	Marketing Management	T	4	0	0	4	4	ES (PC)
8.	MB25203	Creativity and Innovation Laboratory	L	0	0	4	4	2	--
9.	MB25204	Data analysis and Business Modelling	L	0	0	4	4	2	--
Total Credits							**36**	**32**	

Summer internship – minimum of 4 weeks of internship

The report along with the company certificate should be submitted within the two weeks of the reopening date of 3rd semester. The report should be around 40 pages. The report should be sent to the Controller of Examinations by the HOD through the Principal, before the last working day of the 3rd Semester.

Semester – III

S. No.	Course Code	Course Title	Type	Periods per week			Total Contact Periods	Credits	Category
				L	T	P			
1.	MB25C12	*Strategic Management	T	4	0	0	4	4	ES (PC)
2.	MB25301	International Business	T	4	0	0	4	4	ES (PC)
3.		Programme Elective I	T	3	0	0	3	3	ES (PE)
4.		Programme Elective II	T	3	0	0	3	3	ES (PE)
5		Programme Elective III	T	3	0	0	3	3	ES (PE)
6.		Programme Elective IV	T	3	0	0	3	3	ES (PE)
7.		Programme Elective V	T	3	0	0	3	3	ES (PE)
8.		Programme Elective VI	L	3	0	0	3	3	ES (PE)
9.	MB25302	Capstone Simulation	L	0	0	4	4	2	ES (PC)
10.	MB25303	Summer Internship	L	0	0	4	4	2	SD
Total Credits							**34**	**30**	

Semester – IV

S. No.	Course Code	Course Title	Type	Periods per week			Total Contact Periods	Credits	Category
				L	T	P			
1.	MB25401	Project Work	PW	0	0	24	24	12	SD
Total Credits							**24**	**12**	

Total : 105 Credits

Note:

- Students should select the Project topic for their project work only based on the selected area from two functional specializations.
- Students who have selected Sectorial Specialization should select the project topic based on the Sectorial Electives.

TOTAL: 105 CREDITS

Note:

**Common to MBA - Business Analytics Programme*

***Common to MBA - Business Analytics and MBA - Artificial Intelligence and Data Science*

NON - FUNCTIONAL ELECTIVES (2 electives)

S. No.	Course Code	Course Title	Type	Periods per week			Total Contact Periods	Credits	Category
				L	T	P			
1.	MB25C06	Entrepreneurship Development	NEC	3	0	0	3	3	ES (PE)
2.	MB25104	Event Management	NEC	3	0	0	3	3	ES (PE)

Programme Elective Courses – (PE)

FUNCTIONAL SPECIALISATIONS

1. Students can take three elective subjects from two functional specializations.

S. No.	Course Code	Course Title	Type	Periods Per Week			Total Contact Periods	Credits	Category
				L	T	P			
Stream/ Specialization: Financial Management									
1.	MB25001	Security Analysis and Portfolio Management	T	3	0	0	3	3	ES (PE)
2.	MB25002	Financial Markets	T	3	0	0	3	3	ES (PE)
3.	MB25003	Banking and Financial Services	T	3	0	0	3	3	ES (PE)
4.	MB25004	Financial Derivatives	T	3	0	0	3	3	ES (PE)
5.	MB25005	Fintech and sustainability	T	3	0	0	3	3	ES (PE)
6.	MB25006	Behavioral Finance	T	3	0	0	3	3	ES (PE)
Stream/ Specialization: Marketing Management									
7.	MB25007	Retail Marketing	T	3	0	0	3	3	ES (PE)
8.	MB25008	Consumer Behaviour and Neural Marketing	T	3	0	0	3	3	ES (PE)
9.	MB25009	Services Marketing	T	3	0	0	3	3	ES (PE)
10.	MB25010	Sales and Distribution Management	T	3	0	0	3	3	ES (PE)
11.	MB25011	Product and Brand Management	T	3	0	0	3	3	ES (PE)
12.	MB25012	Digital Marketing	T	3	0	0	3	3	ES (PE)
Stream/ Specialization : Human Resource Management									
13.	MB25013	Knowledge Management and Innovation	T	3	0	0	3	3	ES (PE)
14.	MB25014	Industrial Relations and Labour Legislations	T	3	0	0	3	3	ES (PE)
15.	MB25015	Negotiation and Conflict Management	T	3	0	0	3	3	ES (PE)
16.	MB25016	Reward and Compensation Management	T	3	0	0	3	3	ES (PE)
17.	MB25017	International Human Resource Management	T	3	0	0	3	3	ES (PE)
18.	MB25018	Managing HR in Digital Age	T	3	0	0	3	3	ES (PE)
Stream/ Specialization : Operations Management									

19.	MB25019	Supply Chain and Logistics Management	T	3	0	0	3	3	ES (PE)
20.	MB25020	Quality Management	T	3	0	0	3	3	ES (PE)
21.	MB25021	Materials Management	T	3	0	0	3	3	ES (PE)
22.	MB25022	Services Operations Management	T	3	0	0	3	3	ES (PE)
23.	MB25023	Lean Six Sigma and Business excellence	T	3	0	0	3	3	ES (PE)
24.	MB25024	Project Management	T	3	0	0	3	3	ES (PE)
Stream/ Specialization: Business Analytics and Systems									
25.	MB25025	Data Mining and Decision Science	T	3	0	0	3	3	ES (PE)
26.	MB25C13	Deep Learning	T	3	0	0	3	3	ES (PE)
27.	MB25026	Social media web Analytics	T	3	0	0	3	3	ES (PE)
28.	MB25027	E-Business Management	T	3	0	0	3	3	ES (PE)
29.	MB25028	Enterprise Resource Planning	T	3	0	0	3	3	ES (PE)
30.	MB25029	Business Analytics using Python	T	3	0	0	3	3	ES (PE)

SECTORIAL SPECIALIZATIONS

1. Students can take six elective subjects from **any one sectorial specialization**

   A) Logistics and Supply Chain Management

   B) Infrastructure and Real Estate Management

   C) Tourism Management

   D) Entrepreneurship Development

S. No.	Course Code	Course Title	Type	Periods Per Week			Total Contact Periods	Credits	Category
				L	T	P			
Sectorial Specialization: Logistics and Supply Chain Management									
1.	MB25030	Supply Chain Concepts and Planning	T	3	0	0	3	3	ES (PE)
2.	MB25031	Sourcing and Supply Management	T	3	0	0	3	3	ES (PE)
3.	MB25032	Supply Chain Inventory Management	T	3	0	0	3	3	ES (PE)
4.	MB25033	Supply Chain Information System	T	3	0	0	3	3	ES (PE)
5.	MB25034	Warehouse Management	T	3	0	0	3	3	ES (PE)
6.	MB25035	Transportation and Distribution Management	T	3	0	0	3	3	ES (PE)
7.	MB25036	Reverse and Contract Logistics	T	3	0	0	3	3	ES (PE)
8.	MB25037	Air Cargo Management	T	3	0	0	3	3	ES (PE)

9.	MB25038	Containerization and Allied Business	T	3	0	0	3	3	ES (PE)
10.	MB25039	Exim Management	T	3	0	0	3	3	ES (PE)
11.	MB25040	Fundamentals of Shipping	T	3	0	0	3	3	ES (PE)
12.	MB25041	Port and Terminal Management	T	3	0	0	3	3	ES (PE)
Sectorial Specialization : Infrastructure and Real Estate Management									
13.	MB25042	Infrastructure Planning Scheduling and Control	T	3	0	0	3	3	ES (PE)
14.	MB25043	Contracts and Arbitration	T	3	0	0	3	3	ES (PE)
15.	MB25044	Project Management for Infrastructure	T	3	0	0	3	3	ES (PE)
16.	MB25045	Management of Human Resources, Safety and Quality	T	3	0	0	3	3	ES (PE)
17.	MB25046	Disaster Mitigation and Management	T	3	0	0	3	3	ES (PE)
18.	MB25047	Economics and Financial Management in Construction	T	3	0	0	3	3	ES (PE)
19.	MB25048	Urban Environmental Management	T	3	0	0	3	3	ES (PE)
20.	MB25049	Smart Materials, Techniques and Equipments for Infrastructure	T	3	0	0	3	3	ES (PE)
21.	MB25050	Strategic Airport Infrastructure Management	T	3	0	0	3	3	ES (PE)
22.	MB25051	Real Estate Marketing and Management	T	3	0	0	3	3	ES (PE)
23.	MB25052	Infrastructure and Real Estate Entrepreneurship	T	3	0	0	3	3	ES (PE)
24.	MB25053	Valuation of Real Estate and Infrastructure Assets	T	3	0	0	3	3	ES (PE)
Sectorial Specialization : Tourism Management									
25.	MB25054	Tourism Principles and Practices	T	3	0	0	3	3	ES (PE)
26.	MB25055	Travel Management	T	3	0	0	3	3	ES (PE)
27.	MB25056	International Tourism	T	3	0	0	3	3	ES (PE)
28.	MB25057	Tourism Geography	T	3	0	0	3	3	ES (PE)
29.	MB25058	Culture and Heritage	T	3	0	0	3	3	ES (PE)
30.	MB25059	Tourism Products in India	T	3	0	0	3	3	ES (PE)
31.	MB25060	Accommodation and House Keeping Management	T	3	0	0	3	3	ES (PE)
32.	MB25061	Travel Media and	T	3	0	0	3	3	ES (PE)

		Public Relations							
33.	MB25062	Destination Planning and Management	T	3	0	0	3	3	ES (PE)
34.	MB25063	Tour Operations	T	3	0	0	3	3	ES (PE)
35.	MB25064	Leisure and Recreation Management	T	3	0	0	3	3	ES (PE)
36.	MB25065	Medical Tourism	T	3	0	0	3	3	ES (PE)
Sectorial Specialization : Entrepreneurship Development									
37.	MB25066	Enterprise, Entrepreneurship and New Business venturing	T	3	0	0	3	3	ES (PE)
38.	MB25067	Business model Innovation	T	3	0	0	3	3	ES (PE)
39.	MB25068	Social Entrepreneurship	T	3	0	0	3	3	ES (PE)
40.	MB25069	Entrepreneurial Marketing	T	3	0	0	3	3	ES (PE)
41.	MB25070	Entrepreneurial Finance	T	3	0	0	3	3	ES (PE)
42.	MB25071	Family Business Management	T	3	0	0	3	3	ES (PE)
43.	MB25072	Intellectual property Rights	T	3	0	0	3	3	ES (PE)
44.	MB25073	Rural Entrepreneurship	T	3	0	0	3	3	ES (PE)
45.	MB25074	Women Entrepreneurship	T	3	0	0	3	3	ES (PE)
46.	MB25075	Project formulation and Feasibility Analysis	T	3	0	0	3	3	ES (PE)
47.	MB25076	Designing and Managing social Business models	T	3	0	0	3	3	ES (PE)
48.	MB25077	Managing Technology Commercialization and Innovation	T	3	0	0	3	3	ES (PE)

Semester I

MB25C01	Statistics for Management	L	T	P	C
		3	1	0	4

Course Objectives:

This course aims to provide statistical tools for data-driven decision-making, emphasizing the application of probability, hypothesis testing, regression analysis, parametric and non-parametric methods to enhance analytical skills in business scenarios.

Probability and Probability Distributions: Basic definitions and rules for probability, conditional probability independence of events, Baye‘s theorem, (Theory and Problem) and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions (Problem).

Sampling and Estimation Techniques: Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem (Theory and Problem), sampling techniques (Problem). Estimation: Point and Interval estimates for population parameters of large sample and small samples, determining the sample size (Problem).

Hypothesis Testing – Parametric Methods (Problem): 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

Hypothesis Testing – Non-Parametric Methods (Problem): 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 goodnessof fit, comparing two populations. Mann, Whitney U test and Kruskal Wallis test. One sample run test.

Correlation and Regression Analysis (Problem): Correlation, Coefficient of Determination, Rank Correlation, Regression, Estimation of Regressionline, Method of Least Squares, Standard Error of estimate.

Business Analytics Applications & Software Tools: Application of statistics - data visualization and decision making - Case studies using Excel/SPSS/R, Interpretation of output - Business scenarios - applying regression, correlation, and hypothesis tests - Introduction to data-driven storytelling -dashboarding techniques (Theory and Problem)

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. Levin, R. I., Rubin, D. S., Siddiqui, M. H., & Rastogi, S. (2023). *Statistics for management* (8th ed.). Pearson Education.
2. Mann, P. S. (2020). *Introductory statistics* (10th ed.). Wiley Publications.
3. Srivastava, T. N., & Rego, S. (2017). *Statistics for management* (3rd ed.). Tata McGraw Hill.
4. Black, K. (2023). *Applied business statistics* (11th ed.). Wiley India.
5. Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2024). *Statistics for business and economics* (15th ed.). Thomson/South Western Asia.
6. Gupta, S. C., & Kapoor, V. K. (2024). *Fundamentals of applied statistics*. Sultan Chand & Sons.

E-Resources:

1. NPTEL: Business Statistics and Analytics for Decision Making (https://nptel.ac.in)
2. Statistical Tools: R (https://cran.r-project.org), Python (pandas, scipy), IBM SPSS, MS Excel

	CO description	PO Mapping	PSO1	PSO2
CO1	Demonstrate conceptual knowledge of probability, sampling and estimation, parametric and non-parametric hypothesis testing, correlation, regression, and their application in business analytics and software tools.	PO5(3)	-	-
CO2	Interpret and relate probability distributions, sampling techniques, the outcomes of parametric and non-parametric hypothesis tests, correlation and regression analyses, and the output from statistical software to derive meaningful business insights.	PO1(1) PO5(3)	-	2
CO3	Apply statistical concepts, including probability theory, sampling methods, various hypothesis tests, and correlation and regression models, to solve real-world business problems and make data-driven decisions.	PO1(3)	2	3
CO4	Analyze probability distributions, sampling data, the results of parametric and non-parametric tests, and regression models to evaluate business scenarios and assess the validity of statistical conclusions.	PO1(3)	3	2
CO5	Evaluate the effectiveness of different statistical tools and techniques, such as various hypothesis tests and regression models, to select the most appropriate method for a given business problem and critically appraise statistical findings..	PO1(3)	3	-
CO6	Develop data-driven solutions and strategic insights by integrating knowledge of probability, sampling, hypothesis testing, correlation, and regression, and effectively use statistical software for business analytics and data storytelling.	PO1(3) PO2(2)	3	3

MB25C02	Management Concepts and Organizational Behavior	L	T	P	C
		4	0	0	4

Course Objectives:

This course aims to provides foundational understanding of management principles and organizational behavior. It equips them to analyze individual and group dynamics, and apply management theories to real-world business problems.

Fundamentals of Management and Evolutionary Theories: 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, NeoClassical-Mayo & Hawthorne Experiments. Modern era, system & contingency approach Managerial Skills..

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

Fundamentals of Control and Modern Approaches: Impact of Technology on Organisational design - Mechanistic vs Adoptive Structures - Formal and Informal Organisation. Control: meaning, function, Process and types of Control.

Individual Behavior in Organizations: Meaning of Organizational behavior, contributing disciplines, importance of organizational behavior, Perception and Learning - Personality and Individual Differences - Motivation theories and Job Performance - Values, Attitudes and Beliefs - Communication Types-Process - Barriers - Making Communication Effective.

Group Dynamics, Leadership and Organizational Culture: 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.

Contemporary Perspectives in Organizational Behavior: Comparative Management Styles and approaches - Japanese Management Practices Organisational 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.

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. DuBrin, A. J. (2020). Essentials of management (11th ed.). Thomson South Western.

2. Certo, S. C., & Certo, T. L. (2021). Modern management: Concepts & skills (16th ed.). Pearson Education.
3. Koontz, H., & Weihrich, H. (2020). Essentials of management: An international & leadership perspective (11th ed.). Tata McGraw Hill Education.
4. Robbins, S. P. (2023). Organizational behavior (19th ed.). PHI Learning/Pearson Education.
5. Luthans, F. (2015). Organizational behavior (14th ed.). McGraw Hill.
6. Nelson, D. L., Quick, J. C., & Khandelwal, P. (2018). ORGB – An innovative approach to learning & teaching (3rd ed.). Cengage Learning.
7. Pareek, U. (2020). Understanding organizational behavior (4th ed.). Oxford Higher Education.

E-Resources:

1. NPTEL – Principles of Management and Organizational Behaviour (https://nptel.ac.in)

	CO description	**PO Mapping**	**PSO1**	**PSO2**
CO1	Demonstrate conceptual knowledge of management theories, planning, organizing, organization design and control, organizational behaviour, groups and leadership,and contemporary practices in organization behaviour.	PO5(1)	3	-
CO2	Interpret and relate to management theories, planning and organizing processes, perform organization design and execute control, organisational behavioural theories, groups, leadership, culture and contemporary practices in organization behaviour	PO1(1) PO5(3)	2	-
CO3	Apply theories and concepts of management to planning, organising, execution, design, control and individual and group behavior in organizations.	PO1(3) PO2(2)	3	-
CO4	Analyze management theories, planning, organizing, design, execution and control methodologies in organizational settings along with organizational behavioral practices.	PO1(3)	3	-
CO5	Evaluate the theories related to management and organizational behaviour to build model related toplanning, organising, designs, execution, control and to group dynamics, team structures, and leadership styles for enhancing organizational performance.	PO1(3) PO2(2)	3	-
CO6	Develop contemporary practices, adapt and modify management theories, concept to all functions of management and to both individual and group behaviors to suit cross-cultural behaviour, diversity, and global workforce management.	PO3(2) PO4(3)	2	-

MB25C03	Managérial Economics	L	T	P	C
		4	0	0	4

Course Objectives:

The course is designed to provide a strong foundation in economic principles and tools applicable to managerial decision-making. It introduces the concepts of scarcity, efficiency, and market mechanisms in both micro and macroeconomic settings.

Introduction to Managerial Economics and Fundamental Concepts: The themes of economics, scarcity and efficiency, three fundamental economic problems, CREDITS: 3 8 society's capability, Production possibility frontiers (PPF), Productive efficiency Vs economic efficiency, economic growth & stability, Micro economics and Macro economics, the role of markets and government, Positive Vs negative externalities.

Demand, Supply and Consumer Behavior: Market, Demand and Supply, Determinants, Market equilibrium, elasticity of demand and supply, consumer behavior, consumer equilibrium, Approaches to consumer behavior

Production, Costs and Firm-Level Analysis: Production, Short-run and long-run Production Function, Returns to scale, economics Vs dis-economics of scale, Analysis of cost, Short-run and long-run cost function, Relation between Production and cost function - Production Pricing Model - Types of Pricing Model

Market Structures and Factor Pricing: Product market–perfect and imperfect market–different market structures–Firm's equilibrium and supply, Market efficiency, Economic costs of imperfect competition, factor market–Land, Labour and capital–Demand and supply–determination of factor price–Interaction of product and factor market–General equilibrium and efficiency of competitive markets.

Macroeconomic Performance Indicators: Macro-economic aggregates, circular flow of macroeconomic activity, National income determination, Aggregate demand and supply, Macroeconomic equilibrium, Components of aggregate demand and national income, multiplier effect, Demand side management, Fiscal policy in theory.

Monetary Economics and Supply-Side Perspectives: Short-run and Long-run supply curve–Unemployment and its impact–Okun's law, Inflation and the impact–reasons for inflation–Demand Vs Supply factors–Inflation Vs unemployment trade off, Phillips curve –short- run and long-run – Supply side Policy and management- Money market- Demand and supply of money, money-market equilibrium and national income, the role of monetary policy.

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. Samuelson, P. A., Nordhaus, W. D., Chaudhuri, S., & Sen, A. (2019). *Economics* (20th ed.). Tata McGraw Hill.
2. Boyes, W., & Melvin, M. *Text book of economics*. Biztantra.
   (*Note:* No year provided—if you can share that, I can add it.)
3. Mankiw, N. G. (2022). *Principles of economics* (8th ed., India release). Thomson Learning/Cengage India.
4. Lipsey, R., & Chrystal, A. (2015). *Economics* (13th ed.). Oxford University Press.

5. Case, K. E., & Fair, R. C. (2019). *Principles of economics* (13th global ed.). Pearson Education Asia.
6. Panneerselvam, R. (2013). *Engineering economics* (2nd ed.). PHI Learning.

E-Resources:

1. NPTEL: Managerial Economics (https://nptel.ac.in)
2. RBI Bulletin and Monetary Policy Reports (https://rbi.org.in)

	CO description	**PO Mapping**	**PSO1**	**PSO2**
CO1	Demonstrate conceptual knowledge of managerial economics, fundamental concepts, demand and supply, production, costs, market structures, factor pricing, macroeconomic performance indicators, and monetary and fiscal policies.	PO5(3)	-	-
CO2	Interpret and relate foundational concepts, consumer behavior, production and cost functions, different market structures, macroeconomic aggregates, and the role of monetary and fiscal policies in influencing the business environment.	PO1(1) PO5(3)	-	-
CO3	Apply theories and concepts of management to planning, organising, execution, design, control and individual and group behavior in organizations.	PO1(3) PO4(2)	1	-
CO4	Analyze fundamental economic problems, consumer behavior, market structures, firm-level costs and pricing, macroeconomic indicators, and the effects of monetary and fiscal policies on business cycles.	PO1(3) PO3(1) PO4(2)	3	-
CO5	Evaluate the theories related to scarcity and efficiency, consumer demand, market structures, factor pricing, and macroeconomic policy frameworks to assess their impact on business performance in global and Indian contexts..	PO1(3)	3	-
CO6	Develop economic reasoning and apply contemporary practices to adapt managerial economic principles to address real-world business problems across various market structures, macroeconomic conditions, and policy landscapes.	PO3(2) PO4(2)	2	-

MB25101	Accounting for Decision Making	L	T	P	C
		3	1	0	4

Course Objectives:

This course equips a comprehensive understanding of financial, cost, and management accounting principles. It emphasizes the analysis and interpretation of financial statements to support informed decision-making. Through practical exposure to accounting techniques such as ratio analysis, costing methods, marginal costing, and budgeting.

Introduction to Financial Accounting and Reporting: Introduction to Financial, Cost and Management Accounting, Generally accepted accounting principles– Double Entry System, Preparation of Journal, Ledger and Trial Balance Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet (Problem) - Reading the financial statements

Financial Statement Analysis: Financial ratio analysis (Problem), Interpretation of ratio for financial decisions- Dupont Ratios, Comparative statements - common size statements. Cash flow (as per Accounting Standard 3) and Funds flow statement analysis (Problem), Trend Analysis.

Cost Accounting Systems: 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.

Marginal Costing and Decision-Making: Marginal Costing and profit planning, Cost, Volume, Profit Analysis, Break Even Analysis, Decision making problems -Make or Buy decisions - Determination of sales mix (Problem) - Exploring new markets, Add or drop products -Expand or contract.

Budgeting and Performance Management: Budgetary Control, Sales, Production, Cash flow, fixed and flexible budget (Problem), Standard costing and Variance Analysis, (excluding overhead costing) -Accounting standards and accounting disclosure practices in India.

Accounting Standards and Strategic Applications: Accounting standards and disclosures in India, Overview of IFRS and convergence, Ethical issues in accounting, Financial statement fraud detection, Use of accounting in strategic Business decision-making, Role of analytics in finance and accounting..

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. Narayanaswamy, R. (2022). Financial accounting (7th ed.). PHI.
2. Khan, M. Y., & Jain, P. K. (2021). Management accounting (8th ed.). Tata McGraw Hill.
3. Singhvi, N. M., & Bodhanwala, R. J. (2018). Management accounting, Text and cases (3rd ed.). PHI.
4. Stice, E. K., & Stice, J. D. (2024). Financial accounting, reporting & analysis (9th ed.). Cengage.
5. Bhattacharya, A. K. (2012). Introduction to financial statement analysis. Elsevier/PHI.
6. Reddy, T. S., & Murthy, A. (2024). Financial accounting (latest ed.). Margham Publications.

E-Resources:

1. ICAI – Accounting Standards and Guidance Notes (https://www.icai.org)

2. IFRS Foundation (https://www.ifrs.org).				
	CO description	**PO Mapping**	**PSO1**	**PSO2**
CO1	Demonstrate conceptual knowledge of financial, cost, and management accounting principles, financial statement analysis, costing systems, marginal costing techniques, budgeting, performance management, and relevant accounting standards.	PO5(3)	-	-
CO2	Interpret and relate accounting principles from financial and cost accounting, analyze financial statements using various techniques, understand marginal costing applications, and explain the significance of budgetary control and accounting standards in financial disclosures.	PO1(1) PO5(3)	-	-
CO3	Apply the principles of financial accounting to prepare statements, utilize financial analysis tools and various costing systems for decision-making, and use budgeting and variance analysis for performance management in accordance with accounting standards.	PO1(3) PO4(2)	2	-
CO4	Analyze financial statements, cost accounting data, and marginal costing reports to evaluate business performance, assess strategic decisions, and interpret the implications of different accounting standards and ethical issues.	PO1(3) PO3(1) PO4(2)	3	-
CO5	Evaluate the effectiveness of various financial analysis tools, costing methods, budgetary controls, and performance management techniques to support strategic decision-making and identify ethical issues and financial statement fraud.	PO1(3) PO3(2)	3	-
CO6	Develop contemporary accounting practices and models by integrating knowledge of financial reporting, cost management, marginal costing, budgeting, performance measurement, and accounting standards to make strategic business decisions and detect fraud.	PO1(3) PO3(2)	3	2

MB25C04	Legal Aspects of Business	L	T	P	C
		4	0	0	4

Course Objectives:

This course introduces the key Business laws and their practical applications across commercial contracts, company operations, industry regulations, taxation (including GST), and cyber laws in managing risks. It helps learners gain critical awareness of the legal framework.

Commercial Laws and Business Contracts:

The Indian Contract Act 1872: Definition of contract, essentials elements and types of a contract, Formation of a contract, performance of contracts, breach of contract and its remedies, Quasi contracts - Contract OfAgency: Nature of agency, Creation and types of agents, Authority and liability of Agent and principal: Rights and duties of principal and agents, termination of agency.

The Sale of Goods Act 1930: Nature of Sales contract, Documents of title, risk of loss, Guarantees and Warranties, performance of sales contracts, conditional sales and rights of an unpaid seller -

Negotiable Instruments Act 1881: Nature and requisites of negotiable instruments. Types of negotiable instruments, liability of parties, holder in due course, special rules for Cheque and drafts, discharge of negotiable instruments - The payment and settlement systems Act, 2007.

Company Law and Competition Regulations:
Company Act 1956 & 2013: Major principles, Nature and types of companies, Formation, Memorandum and Articles of Association, Prospectus, Power, duties and liabilities of Directors, winding up of companies, Corporate Governance. Competition Act 2002 - Introduction, Definitions, Enquiry into Certain Agreements and Dominant Position of Enterprise and Combinations.

Industrial Relations and Labour Legislation: An Overview of Factories Act - Payment of Wages Act - Payment of Bonus Act - Industrial Disputes Act.

Corporate Taxation and Goods & Services Tax (GST): Corporate Tax Planning, Corporate Taxes and Overview of Latest Developments in Indirect tax Laws relating to GST: An introduction including constitutional aspects, Levy and collection of CGST & IGST, Basic concept of time and value of supply, Input tax credit, Computation of GST Liability, Registration, Tax Invoice, Credit & Debit Notes, Electronic Way bill, Returns, Payment of taxes including Reverse Charge.

Consumer Protection and Cyber Laws: Consumer Protection Act, Consumer rights, Procedures for Consumer grievances redressal, Types of consumer Redressal Machineries and Forums-- Cyber crimes, IT Act 2000 and 2002, Cyber Laws

Intellectual Property Rights (IPR) in Business: Introduction of IPR Intellectual Property Laws-Introduction, Legal Aspects of Patents, Filing of Patent Applications, Rights from Patents, Infringement of Patents, Copyright and its Ownership, Infringement of Copyright, Civil Remedies for Infringement– Copy rights, Trade marks, Patent Act. Introduction, Right to Information Act, 2005.

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study,

Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. Kapoor, N. D. (2024). *Elements of mercantile law* (39th rev. ed.). Sultan Chand and Company.
2. Goel, P. K. (2023/24). *Business law for managers* (2nd ed.). Biztantra Publishers.
3. Pathak, A. (2022). *Legal aspects of business* (8th ed.). Tata McGraw Hill.
4. Kumar, R. (2016). *Legal aspects of business* (4th ed.). Cengage Learning.
5. Sinha, P. K., & Singhania, V. (2017/18). *Text book of indirect tax*. Taxmann Publication.
6. Taxmann. (2023). *GST manual with GST law guide & digest of landmark rulings* (12th ed.).

E-Resources:

1. Ministry of Corporate Affairs: https://www.mca.gov.in
2. GST Portal: https://www.gst.gov.in
3. WIPO Intellectual Property Resources: https://www.wipo.int

	CO description	PO Mapping	PSO1	PSO2
CO1	Demonstrate conceptual knowledge of commercial laws, company law, industrial relations and labor legislation, corporate taxation (including GST), consumer protection, cyber laws, and intellectual property rights (IPR)..	PO5(3)	-	-
CO2	Interpret and relate key legal principles from contract law, company regulations, industrial acts, taxation frameworks, consumer protection laws, and intellectual property statutes to understand the legal environment of business.	PO1(1) PO5(3)	-	-
CO3	Apply legal principles and frameworks from commercial and company law, labor legislation, tax laws, and IPR to evaluate business contracts, corporate governance practices, compliance requirements, and the protection of business innovations.	PO1(3) PO4(3)	1	-
CO4	Analyze legal and regulatory frameworks, including competition law, industrial relations acts, corporate tax and GST provisions, cyber laws, and IPR, to assess their impact on business operations, risk management, and strategic decision-making.	PO1(3) PO3(1) PO4(2)	3	2
CO5	Evaluate the effectiveness of various legal provisions and frameworks, such as consumer protection and cyber laws, and IPR, to build compliance strategies, mitigate legal risks, and ensure ethical and sustainable business practices.	PO1(2) PO3(3)	3	2
CO6	Develop contemporary legal compliance and risk management strategies by integrating knowledge of commercial law, company law, industrial relations, taxation, and cyber and IPR laws to ensure effective and ethical business operations in a global context.	PO1(3) PO3(2)	3	2

MB25102	Information Management	L	T	P	C
		4	0	0	4

Course Objectives:

This course equips the foundational and advanced knowledge of how information systems contribute to strategic Business decisions and operations. It introduces the key concepts of data, system design, databases, and information security and integrates recent IT advancements such as AI, IoT, blockchain, and quantum computing.

Fundamentals of Information Systems in Business: Data, Information, Information System, evolution, types based on functions and hierarchy, Enterprise and functional information systems.

Systems Analysis and Design Techniques: The work of a system analyst- SDLC-System design, AGILE Model, Waterfall Model, Spiral Model, Iterative and Incremental Model - RAD Model - Requirement analysis - Data flow diagram, relationship diagram, UML diagram, design-Implementation-Evaluation and maintenance of MIS, Database System: Overview of Database-Components-advantages and disadvantages of database; Data Warehousing and Data Mining; Business Intelligence; Artificial Intelligence; Expert System; Big Data; Cyber Safety and Security-Cryptography; RSA Model of Encryption; Data Science - Block Chain Technology; E-commerce and E-Business models; IOT - RFID.

Database Management Systems and Warehousing: DBMS, types and evolution, RDBMS, OODBMS, RODBMS, Data warehousing, Data Mart, Data mining - Association rule mining - Clustering - Pattern matching.

Integrated Systems and Information Security: Knowledge based decision support systems, Integrating social media and mobile technologies in Information system, Security, IS Vulnerability, Disaster Management, Computer Crimes, Securing the Web.

Emerging Information Technologies: Machine learning - Deep learning, Big data, Pervasive Computing, Cloud computing, Advancements in AI, IoT, Block chain, Crypto currency, Quantum computing

Managerial Applications and Strategic Use: Strategic role of IT in Business, Role of CIO and IT governance, Aligning IT with Business objectives, Legal and ethical issues in information management, Technology adoption models, IT project management, Role of information systems in Business analytics and decision science.

Weightage: Continuous Assessment: 40%, End Semester Examinations: 60%.

Assessment Methodology: Written Test I & II (60%) Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project (40%)

References:

1. Laudon, K. C., & Laudon, J. P. (2022). Management information systems (17th ed.). Pearson.
2. Schultheis, R., & Sumner, M. Management information systems – The manager's view. Tata McGraw Hill.
3. (Note: No edition/year available; if you find one, I can update it.)
4. Panneerselvam, R. (2018). Database management systems (3rd ed.). PHI Learning.
5. Laudon, K. C., Turban, E., & Traver, C. G. (2023). E-commerce: Business, technology, society (17th ed.). Pearson.
6. Loshin, D. (2021). Big data analytics (2nd ed.). Elsevier.
7. Han, J., Kamber, M., & Pei, J. (2012). Data mining: Concepts and techniques (3rd ed.).

E-Resources:

1. NPTEL – Management Information System https://onlinecourses.nptel.ac.in
2. World Economic Forum – Reports on Emerging Tech https://www.weforum.org/

	CO description	PO Mapping	PSO1	PSO2
CO1	Demonstrate conceptual knowledge of information systems fundamentals, system analysis and design techniques, database management systems, information security, emerging technologies, and their strategic applications in business.	PO5(3)	-	2
CO2	Interpret and relate the evolution and types of information systems, system development methodologies, database concepts, the integration of integrated systems, the impact of emerging technologies, and the strategic role of IT governance to inform managerial decisions.	PO1(1) PO5(3)	1	2
CO3	Apply system analysis and design techniques, database management principles, security practices, and emerging technologies to solve business problems and support strategic decision-making across enterprise and functional information systems.	PO1(3) PO4(3)	2	3
CO4	Analyze the functional and hierarchical aspects of information systems, evaluate system design methodologies, examine the role of database management and data warehousing, and assess the strategic implications of integrated systems, emerging technologies, and IT governance for business.	PO1(3) PO3(1) PO4(2)	3	3
CO5	Evaluate the effectiveness of different information systems, system design models, database management systems, security measures, and emerging technologies (like AI, IoT, blockchain) to assess their impact on business transformation and ethical and legal compliance.	PO1(2) PO3(3) PO4(2)	3	3
CO6	Develop strategic information management plans and business solutions by synthesizing knowledge of information systems fundamentals, system design, database management, security, and emerging technologies to achieve business objectives and enhance organizational performance.	PO1(3) PO3(2) PO4(3)	3	3

MB25103	Indian Ethos and Business Ethics	L	T	P	C
		0	0	4	2

Course Objectives:

This course is designed to provide a deep understanding of Indian ethos, ethical practices, and value-based decision-making in Business. It emphasizes the integration of traditional Indian wisdom with contemporary management practices.

Foundations of Indian Ethos in Management

- Concepts of Indian ethos and cultural intelligence
- Indian philosophy and ethical principles in leadership
- Work ethos and ethics for professional managers
- Indian values and value systems, Dharma, Karma, Nishkama Karma
- Wisdom for modern managers from scriptures (Gita, Upanishads)

Indian Learning Systems and Holistic Growth

- Gurukul system and its relevance today
- Law of Humility, Law of Growth, Law of Responsibility
- Ancient learning methods and their modern parallels
- Spiritual quotient in leadership development
- Personality development through Indian ethos

Business Ethics in Contemporary Organizations

- Definition, scope, and need for Business ethics
- Ethical codes of conduct and governance
- Ethical decision-making models and frameworks
- Organizational values and trust-building
- Ethics in leadership and strategic decisions

Individual Ethics and Moral Development

- Personal values and ethical behavior at work
- Integrity, honesty, empathy, and loyalty
- Conflict between personal and professional ethics
- Emotional intelligence and ethical maturity
- Building personal ethical frameworks

Corporate Social Responsibility (CSR and Sustainability

- Concept and scope of CSR in India
- Corporate accountability and stakeholder perspectives
- Ethical CSR practices in Indian corporates
- Sustainable development and ESG goals
- Triple bottom line and ethical supply chain management

Cyber Ethics, IPR, and Global Ethical Challenges

- Ethics in technology and the digital age
- Cyber law and ethical issues in e-commerce
- Intellectual property rights and ethical considerations
- Ethical concerns in AI, automation, and surveillance
- Cross-cultural Business ethics and globalization

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 are

consolidated at the end of the semester. No end semester examination is required for this course.

1. Indian Ethos and Personality Development
2. Work ethos and ethics for Professional Managers
3. Indian Values, Value Systems and Wisdom for modern managers
4. Ethos in leadership development
5. Indian system of learning, Gurukul system of learning, Law of humility, Law of growth, Law of responsibility

References:

1. Fernando, C. (2019). *Business ethics: An Indian perspective* (3rd ed.). Pearson Education.
2. Nandagopal, R., & Sankar, A. (2015). *Indian ethos and values in management*. Tata McGraw Hill.
3. Balachandran, S. (2018). *Ethics, Indian ethos and management*. PHI Learning.
4. Hartman, L. P., DesJardins, J., et al. (2023). *Business ethics: Decision making for personal integrity and social responsibility* (6th ed.). McGraw Hill.
5. Ranganathananda, S. *Universal message of the Bhagavad Gita*. Advaita Ashrama.
6. Drucker, P. (2010). *Managing for results*. HarperBusiness.

E-Resources:

1. NPTEL – Ethics in Engineering Practice https://onlinecourses.nptel.ac.in/noc22_mg54/
2. Stanford Encyclopedia of Philosophy – Business Ethics https://plato.stanford.edu/entries/ethics-business
3. UN Global Compact – Business Ethics & CSR https://unglobalcompact.org

	CO description	PO Mapping	PSO1	PSO2
CO1	Demonstrate conceptual knowledge of Indian ethos, ethical principles, business ethics, individual ethics, CSR, and challenges in cyber ethics and global business.	PO3(3) PO5(3)	-	-
CO2	Interpret and relate Indian philosophy, learning systems, ethical codes of conduct, personal values, CSR principles, and cyber and IPR laws to build a comprehensive understanding of business ethics.	PO2(2) PO3(3) PO5(3)	-	-
CO3	Apply Indian ethos and wisdom, ethical decision-making frameworks, personal values, and principles of CSR to address ethical issues and dilemmas in organizational, digital, and global contexts.	PO1(2) PO2(3) PO3(3) PO4(1)	-	2
CO4	Analyze ethical issues, individual moral development, CSR and sustainability practices, and the ethical implications of technology and globalization to ensure socially conscious and responsible business operations.	PO2(3) PO3(3)	2	2
CO5	Evaluate traditional Indian wisdom, ethical decision-making models, CSR strategies, and ethical challenges in the digital age to foster a responsible and culturally conscious leadership approach	PO2(3) PO3(3)	3	-
CO6	Develop a framework for ethical and sustainable business practices by integrating Indian ethos, ethical principles, CSR, and a responsible approach to cyber ethics and global challenges to cultivate a values-based organizational culture.	PO2(3) PO3(3)	3	2

MB25C05	Contemporary Business Communications	L	T	P	C
		0	0	4	2

Course Objectives:

This course aims to equip essential business communication skills required for modern managerial roles. It emphasizes both oral and written communication for various Business contexts such as interviews, meetings, presentations, professional correspondence..

Communication Fundamentals and Managerial Speech Practice: Introduction to Business Communication: Principles of effective communication, Target group profile, Barriers of Communication, Reading Skills, Listening, Feedback., Principles of Nonverbal Communication: Professional dressing and body language. Role Playing, Debates and Quiz. Types of managerial speeches - Presentations and Extempore, speech of introduction, speech of thanks, occasional speech, theme speech., Group communication: Meetings, group discussions. , Other Aspects of Communication: Cross Cultural Dimensions of Business Communication Technology and Communication, Ethical & Legal Issues in Business Communication.

Business Writing and Corporate Communication Tools: Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, Maintaining a Diary, Resume/CV, job application letters, proposals. Internal communication through, notices, circulars, memos, agenda and minutes, reports. Case Studies. Exercises on Corporate Writing, Executive Summary of Documents, Creative Writing, Poster Making, Framing Advertisements, Slogans, Captions, Preparing Press Release and Press Notes

Presentation and Public Speaking Skills: Principles of Effective Presentations, Principles governing the use of audiovisual media.

Interviewing and Job Preparedness: Mastering the art of giving interviews in, selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting.

Business Networking and Personal Branding: Business networking techniques – Ice-breakers, small talk, digital etiquette – Conversational intelligence – Professional dining etiquette – Social media presence and grooming – Self-confidence and image management – Real-life simulations and feedback.

Report Writing and Analytical Communication: 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.

Note: The emphasis of the entire subject should be on practical aspects.

Practical: This module introduces both written and spoken communication skills to students to build their confidence in delivering clear and logical messages to their audience. They will develop written communication skills through crafting Business messages such as Business letters, emails, and meeting minutes. In addition, students will work through presentations and simulated meetings to refine their spoken communication skills, discussion techniques and people skills.

Practical: This module builds on the foundation of Business Communication 1 and creates opportunities for students to strengthen their oral and written communication. Students will be required to enhance their presentation skills through impromptu speeches. Students will also learn how to prepare a formal Business report. Job hunting and employment skills will be introduced to prepare students for a positive start to their careers. Students will be taught to write application letters and resumes. Additionally, students will learn job interview techniques through role-plays and simulations

Practical: This practical module aims to help students be persuasive in the Business world. Students will learn listening and data gathering skills to better understand their target audience's

needs and requirements and persuasive skills to convince the audience to accept a new policy/suggestion/product through role-playing a boardroom presentation. Students will also be taught Business networking skills including conversation techniques, dining etiquette and personal branding through role-plays and simulations.

References:

1. Pal, R., & Korlahalli, J. S. (2011). *Essentials of business communication* (13th rev. ed.). Sultan Chand.
2. Raman, M., & Singh, P. (2012). *Business communication* (2nd ed.). Oxford.
3. Sharma, R. C., & Mohan, K. (2020). *Business correspondence & report writing* (6th ed.). Tata McGraw Hill.
4. Goodale, M. *Professional presentations: Developing communication skills*. Cambridge University Press.
   (*Note:* Year not provided; please share if you have it.)
5. Adair, J. *Effective communication*. Pan Macmillan.
   (*Note:* Year not provided; please share if you have it.)
6. Thill, J. V., & Bovee, G. L. (2023/2024). *Excellence in business communication* (14th ed.). McGraw Hill.

E-Resources:

1. NPTEL – Soft Skills https://onlinecourses.nptel.ac.in/noc21_hs76
2. MindTools – Communication Skills Portal ww.mindtools.com/cawh8bu/communication-skills
3. TEDx – Effective Speaking & Personal Branding https://www.youtube.com

	CO description	PO Mapping	PSO1	PSO2
CO1	Demonstrate effective verbal and non-verbal communication skills, including public speaking, written correspondence, interviewing, professional networking, and report writing, in various business contexts.	PO2(3) PO5(3)	-	-
CO2	Interpret and relate the principles of effective communication, business writing, presentation techniques, job preparedness, and professional networking to develop clear and persuasive communication strategies.	PO2(3) PO5(3)	-	-
CO3	Apply communication fundamentals, business writing techniques, public speaking skills, interviewing strategies, networking etiquette, and report writing principles to solve real-world business communication challenges.	PO1(1) PO2(3) PO4(2)	-	-
CO4	Analyze business communication scenarios, including managerial speeches, written correspondence, interviews, and networking interactions, to adapt communication styles for different audiences and purposes.	PO2(3)	2	2
CO5	Evaluate the effectiveness of various communication methods, including presentations, professional correspondence, and reports, to build a personal brand, foster professional relationships, and enhance business communication.	PO2(3) PO3(2) PO5(3)	-	-
CO6	Develop a comprehensive communication plan and strategy by integrating knowledge of communication fundamentals, written correspondence, public speaking, job preparedness, networking, and analytical reporting to effectively lead and manage in a modern business environment.	PO2(3) PO3(2)	3	2

Semester II

MB25C07	Applied Operations Research	L T P C
		3 1 0 4

Course Objectives:

This course equips students with analytical and quantitative tools essential for modeling and solving complex Business problems. It emphasizes linear programming, decision theory, inventory models, queuing systems, and simulation techniques, enabling data-driven decision-making in logistics, finance, operations, and project management. Learners will gain proficiency in applying optimization and statistical modeling techniques using spreadsheet-based tools and modern software applications. The course prepares students to assess real-time scenarios with practical, strategic, and computational approaches to decision-making.

Introduction to Quantitative Decision Models

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. **(Theory and Problem)**

Extensions of Linear Programming – Transportation & Assignment (Problems)

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.

Decision Theory and Game Theory Applications (Theory and Problem)

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.

Inventory Control and Replacement Models (Theory and Problem)

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.

Queuing Models and Monte Carlo Simulation (Problem)

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

Emerging Trends and Tools for Quantitative Decision-Making (Theory and Problem)

Integration of quantitative techniques in Business analytics – Use of Excel Solver, R, and Python in operations research – Introduction to prescriptive analytics.

References:

1. Hamdy A. Taha, Operations Research: An Introduction, 11th Ed., Pearson Education, 2022
2. G. Srinivasan, Operations Research: Principles and Applications, PHI Learning, 2nd Ed., 2011

3. N. D. Vohra, Quantitative Techniques in Management, Tata McGraw Hill,2010
4. R. Paneerselvam, Operations Research, PHI Learning, 4th Ed., 2018
5. Frederick Hillier & Mark Hillier, Introduction to Management Science, McGraw Hill India, 6th Ed., 2023
6. Bernard W. Taylor III, Introduction to Management Science, Pearson, 9th Ed., 2020
7. S. Kalavathy, Operations Research, Vikas Publishing House, 4th Ed., 2022
8. Nagraj B., Barry R. & Ralph M. S. Jr., Managerial Decision Modelling with Spreadsheets, Pearson Education, 2nd Ed., 2007

E-Resources:

- ✧ MIT OpenCourseWare – Operations Research
- ✧ OR-Tools by Google
- ✧ Analytics Vidhya – Decision Science Tutorials
- ✧ Coursera – Business Analytics: Decision Making Using Data (Wharton)
- ✧ Khan Academy – Linear Programming and Optimization
- ✧ YouTube – Prof. G. Srinivasan's NPTEL Operations Research Series

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of quantitative decision models, linear programming, transportation and assignment problems, decision theory, game theory, inventory control, replacement models, queuing systems, simulation, and emerging trends and software tools.
- **CO2:** Interpret and relate the principles of linear programming, transportation and assignment models, decision theory, game theory, inventory and replacement models, queuing theory, and simulation to identify and frame business problems.
- **CO3:** Apply analytical and quantitative tools, including linear programming, transportation and assignment methods, decision trees, inventory models, and queuing theory, to solve complex business problems.
- **CO4:** Analyze business problems across different domains, such as logistics, operations, and project management, using techniques like linear programming, game theory, inventory models, and simulation to assess alternative solutions and their impacts.
- **CO5:** Evaluate the effectiveness of various operations research techniques, including transportation and assignment models, decision theory, and queuing models, to make informed and optimal decisions under real-world constraints and uncertainties.
- **CO6:** Develop data-driven solutions and strategic recommendations by integrating knowledge of linear programming, inventory management, queuing theory, and simulation, and utilizing modern software tools to solve complex managerial decision problems.

Internal Assessment Methodology – 100 Marks

Component	Weightage
Written Test I & II	60%

Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	3	3	3	3	2
CO2	3	2	3	2	2	3	3
CO3	3	3	2	2	3	2	2
CO4	3	3	3	3	2	3	3
CO5	3	3	3	3	3	3	2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25201 **Financial Management** **LT P C**
3 1 0 4

Course Objectives:

This course aims to impart a comprehensive understanding of the core financial functions in an organization, emphasizing value creation and efficient resource allocation. Students will explore decision-making tools related to investment, financing, working capital, and dividend distribution. Emphasis is laid on time value of money, capital budgeting, risk-return trade-offs, cost of capital, and modern capital market instruments. The course prepares students to make effective financial decisions under real-world constraints and uncertainties.

Foundations of Financial Management

Introduction, Nature and Scope of Financial Management – Objectives of Financial Management – Major Financial Decisions – Role of Finance Manager – Organization of Finance Functions – Time Value of Money – Valuation of Shares and Bonds – Risk and Return Analysis: Single Asset and Portfolio Context.

Investment and Capital Budgeting Decisions

Capital Budgeting: Concepts and Relevance – Identification of Cash Flows – Evaluation Techniques: Payback, ARR, NPV, IRR, Profitability Index **(Problem)** – Comparison of DCF and Non-DCF Methods – Cost of Capital: Specific Costs and Weighted Average Cost (Problem) – Application of Investment Appraisal Tools.

Financing Decisions and Capital Structure

Leverages – Operating and Financial Leverage (Problem) – Combined Leverage – EBIT-EPS Analysis – Indifference Point **(Problem)** – Capital Structure Theories: NI, NOI, MM Approach – Determinants of Capital Structure – Financial Planning and Strategy.

Dividend Policy Decisions

Dividend Policy: Importance and Issues – Relevance and Irrelevance Theories – Walter's Model, Gordon's Model, MM Hypothesis – Types and Forms of Dividends – Factors Influencing Dividend Decisions – Real-World Dividend Practices.

Working Capital Management

Working Capital: Concepts, Determinants and Estimation **(Problem)** – Operating Cycle – Receivables Management – Inventory and Cash Management – Working Capital Financing: Trade Credit, Commercial Paper, Bank Finance, Company Deposits – Liquidity vs Profitability Trade-offs.

Long-Term Financing and Capital Markets

Indian Capital Market Overview – Primary and Secondary Markets – Long-Term Sources: Equity, Debentures, Term Loans – Lease and Hire Purchase – Venture Capital and Private Equity – SEBI Regulations – Financing Strategies for Startups.

References:

1. I.M. Pandey, Financial Management, Vikas Publishing, 12th Ed., 2023.
2. M.Y. Khan & P.K. Jain, Financial Management: Text, Problems and Cases, TMH, 9th Ed., 2023.
3. Aswath Damodaran, Corporate Finance: Theory and Practice, Wiley, 4th Ed., 2014
4. James C. Van Horne, Fundamentals of Financial Management, PHI Learning, 14th Ed., 2021.
5. Brigham & Ehrhardt, Financial Management: Theory and Practice, Cengage, 15th Ed., 2022.
6. Prasanna Chandra, Financial Management, TMH, 10th Ed., 2022.
7. Srivastava & Mishra, Financial Management, Oxford University Press, 2nd Ed., 2019.

E-Resources:

- ✧ Investopedia Financial Education – https://www.investopedia.com
- ✧ NSE India Corporate Finance Modules – https://www.nseindia.com
- ✧ Coursera: Corporate Finance Specializations – https://www.coursera.org
- ✧ SEBI Investor Awareness Resources – https://investor.sebi.gov.in
- ✧ Harvard Business Review Finance Insights – https://hbr.org

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of financial management, time value of money, capital budgeting, capital structure, dividend policies, working capital management, and long-term financing options.

- **CO2:** Interpret and relate the objectives of financial management, risk and return analysis, capital budgeting techniques, leverage and capital structure theories, dividend policies, and the role of capital markets in a company's financial decisions.
- **CO3:** Apply financial management principles, time value of money concepts, and capital budgeting techniques to make informed investment, financing, and working capital decisions.
- **CO4:** Analyze financial data, including cash flows, leverage, and working capital components, to evaluate investment proposals, capital structure, and liquidity management strategies.
- **CO5:** Evaluate capital structure and dividend policy theories, working capital financing options, and long-term financing instruments to formulate a comprehensive financial strategy for a firm.
- **CO6:** Develop a financial management framework by integrating knowledge of investment, financing, and working capital decisions to create value, manage risk, and support the long-term growth of a business.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	3	2
CO2	3	3	3	3	2	3	3
CO3	3	3	3	3	2	3	3
CO4	3	3	3	3	2	3	3
CO5	3	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25C09 **Human Resource Management** **L T P C**
4 0 0 4

Course Objectives:

This course aims to provide an in-depth understanding of strategic and operational aspects of Human Resource Management (HRM) in modern organizations. It equips students with competencies in manpower planning, recruitment, training, performance management, employee engagement, and digital HR practices. The course emphasizes current trends such as HR analytics, self-development, knowledge management, and technology-enabled HR practices within the Indian and global Business contexts. Students will gain exposure to real-time HR challenges and how to align HR strategy with organizational goals.

Strategic Perspectives in Human Resource Management

Evolution of human resource management – The importance of the human capital – Role of human resource manager –Challenges for human resource managers - trends in Human resource policies – Computer applications in human resource management – Human resource accounting and audit – Introduction to HR analytics.

Workforce Planning and Talent Acquisition

Importance of Human Resource Planning – Forecasting human resource requirement – matching supply and demand - Internal and External sources - Organizational Attraction - Recruitment, Selection, Induction and Socialization - Theories, Methods and Process – Legal and ethical issues in hiring.

Training, Development and Knowledge Management

Types of training methods –purpose- benefits- resistance. Executive development programme – Common practices - Benefits – Self development – Knowledge management systems and practices.

Motivation, Compensation, and Career Engagement

Compensation plan – Reward – Motivation – Application of theories of motivation – Career management – Mentoring - Development of mentor – Protégé relationships- Job Satisfaction, Employee Engagement, Organizational Citizenship Behavior: Theories, Models.

Performance Management and Employee Movement

Method of performance evaluation – Feedback – Industry practices. Promotion – Demotion, Transfer and Separation – Implication of job change. The control process – Importance – Methods – Requirement of effective control systems grievances – Causes Implications – Redressal methods.

HR Governance and Emerging Issues

HR control processes – Legal compliance in HRM – Diversity and Inclusion – Ethical HR practices – Employee wellbeing – Future of work: AI in HRM, remote workforce management – HR metrics and dashboards – Global HRM trends – Sustainable HRM practices.

References:

1. Gary Dessler & Biju Varkkey, Human Resource Management, 16th Ed., Pearson Education, 2024.

2. David A. DeCenzo, Stephen P. Robbins, Susan L. Verhulst, Fundamentals of Human Resource Management, Wiley, 13th Ed., 2024
3. Uday Kumar Haldar, Juthika Sarkar, Human Resource Management, Oxford University Press, 2nd Ed., 2023.
4. Wayne F. Cascio, Managing Human Resources: Productivity, Quality of Work Life, Profits, McGraw Hill, 12th Ed., 2024.
5. Michael Armstrong, Armstrong's Handbook of Strategic Human Resource Management, Kogan Page, 8th Ed., 2023.
6. Luis R. Gomez-Mejia et al., Managing Human Resources, Pearson, 8th Ed., 2023.
7. Dipak Kumar Bhattacharyya, HR Analytics: Understanding Theories and Applications, Sage Publications, 2nd Ed., 2022.
8. Ivancevich, Human Resource Management, McGraw Hill, 14th Ed., 2023.
9. Bernardin, Human Resource Management, Tata McGraw Hill, 11th Ed., 2022.

E-Resources:

- ✧ SHRM India Knowledge Center
- ✧ HBR Human Resource Management Articles
- ✧ Coursera – HR Management Specialization
- ✧ LinkedIn Learning – Human Resources Courses
- ✧ AIHR – Academy to Innovate HR
- ✧ People Matters

Course Outcomes

On successful completion of this course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of strategic HRM, workforce planning, talent acquisition, training and development, compensation, performance management, employee relations, and emerging HR trends and governance.
- **CO2:** Interpret and relate the evolution of HRM, human resource planning, training and development programs, motivational theories, performance evaluation methods, and emerging HR trends to the overall organizational context.
- **CO3:** Apply HRM principles and practices, including workforce planning, recruitment, selection, training methods, compensation models, and grievance redressal, to solve real-world organizational challenges.
- **CO4:** Analyze human resource strategies, talent acquisition processes, training and development needs, compensation plans, performance management systems, and emerging HR trends to align them with organizational goals.
- **CO5:** Evaluate different HR practices, including training programs, motivational theories, performance management systems, and legal frameworks, to make informed decisions and build a robust HR governance model.
- **CO6:** Develop contemporary HR policies and strategies by integrating knowledge of HR planning, talent management, performance evaluation, and emerging trends like HR analytics and AI to foster a diverse, engaged, and ethical workforce.

Internal Assessment Methodology – Total: 100 Marks

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	2	3	3	2	3	2	2
CO4	3	2	3	3	2	3	2
CO5	3	3	3	3	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25C11 **Operations Management** **L T P C**
3 1 0 4

Course Objectives:

This course provides a holistic understanding of operations management as a vital function in achieving strategic and operational excellence in organizations. It covers tools, techniques, and strategies to design, plan, control, and improve manufacturing and service operations. Emphasis is placed on capacity planning, product design, supply chain strategies, quality management, and lean operations. Students will explore recent trends including digital operations, sustainable practices, and data-driven decision-making to gain competitive advantage in the global market.

Overview of Operations Management and Strategic Alignment

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

Capacity, Facility and Supply Chain Decisions

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.

Process, Product and Layout Design

Product Design - Criteria, Approaches. Product development process - stage-gate approach - tools for efficient development. Process - design, strategy, types, analysis. Facility Layout – Principles, Types, Planning tools and techniques – Service blueprinting – Role of design in lean and agile systems.

Forecasting, Resource and Inventory Planning

Demand Forecasting – Need, Types, OBJECTIVE and Steps - Overview of Qualitative and Quantitative methods. Operations planning - Resource planning - Inventory Planning and Control. Operations Scheduling - Theory of constraints - bottlenecks, capacity constrained resources, synchronous manufacturing

Quality Management and Lean Thinking

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. Six sigma and DMAIC methodology.

Emerging Trends in Operations Management

Digital transformation in operations – Industry 4.0 and smart factories – Sustainable operations and green manufacturing – Service operations and scalability – Operations analytics – Blockchain in supply chains – Resilience and risk mitigation – Global operations strategy – Case studies on Indian and global practices.

References:

1. Richard B. Chase, Ravi Shankar, F. Robert Jacobs, Operations and Supply Chain Management, McGraw Hill, 17th Ed., 2023
2. B. Mahadevan, Operations Management: Theory and Practice, Pearson, 4th Ed., 2018
3. William J. Stevenson, Operations Management, McGraw Hill, 14th Ed., 2022
4. Cecil C. Bozarth & Robert B. Handfield, Introduction to Operations and Supply Chain Management, Pearson, 5th Ed., 2023
5. Norman Gaither & Gregory Frazier, Operations Management, Cengage, 11th Ed., 2022
6. R. Paneerselvam, Production and Operations Management, PHI Learning, 3rd Ed., 2017
7. Nigel Slack, Operations Management, Pearson, 10th Ed., 2023
8. S. Chopra & P. Meindl, Supply Chain Management: Strategy, Planning, and Operation, Pearson, 8th Ed., 2024
9. Russel & Taylor, Operations Management, Wiley, 11th Ed., 2022

E-Resources:

- ✧ MIT OpenCourseWare – Operations Management
- ✧ Coursera – Operations Management by Wharton
- ✧ LinkedIn Learning – Operations Strategy
- ✧ ASQ – American Society for Quality
- ✧ Harvard Business Review – Operations Insights

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of operations management, operations strategy, capacity planning, supply chain decisions, product and process design, forecasting, quality management, lean thinking, and emerging trends like Industry 4.0 and sustainability.
- **CO2:** Interpret and relate the principles of operations management, capacity planning, supply chain strategies, product and process design, forecasting techniques, TQM, lean manufacturing, and the impact of digital and sustainable practices on operational excellence.
- **CO3:** Apply operational management tools and techniques, including capacity and location models, product and process design methods, forecasting models, and quality management tools, to solve real-world business problems.
- **CO4:** Analyze operations strategies, facility layouts, supply chain decisions, demand forecasts, and quality management systems to evaluate operational efficiency and identify areas for improvement.
- **CO5:** Evaluate various operational strategies, including capacity planning and sourcing, process and product design, forecasting methods, and quality management philosophies, to make informed decisions for achieving competitive advantage.
- **CO6:** Develop contemporary operations strategies by integrating knowledge of operations management, supply chain, design, forecasting, quality, and emerging trends to foster sustainable and resilient operations in a global market.

Internal Assessment (Total: 100 Marks)

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix: :

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	3	2	2	2
CO2	3	3	3	2	3	3	2
CO3	3	2	3	3	3	2	3
CO4	3	3	3	2	3	3	3
CO5	3	3	3	3	2	3	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25C08 **Business Research Methods** **L T P C**
3 1 0 4

Course Objectives:

This course aims to develop a research-oriented mindset by imparting the principles and practices of scientific Business research. It enables students to systematically approach real-world Business problems using exploratory, descriptive, and causal research designs. Emphasis is placed on quantitative and qualitative research techniques, instrument design, statistical analysis using software tools, and ethical report writing. The course also trains students to critically evaluate research studies and independently prepare Business research reports for data-driven decision-making.

Foundations of Business Research and Scientific Inquiry

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.

Research Design and Measurement Techniques

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.

Data Collection Methods and Sampling Techniques

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.

Data Preparation and Analytical Techniques

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.

Report Writing and Research Communication

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.

Integrity and Trends in Business Research

Research Integrity – Emerging Trends: Digital Surveys, AI in Research, Online Panels, Real-Time Analytics – Case Studies on Ethical Dilemmas in Research.

References:

1. Donald R. Cooper, Pamela S. Schindler, J. K. Sharma, Business Research Methods, McGraw Hill, 13th Ed., 2021
2. Uma Sekaran & Roger Bougie, Research Methods for Business: A Skill Building Approach, Wiley, 7th Ed., 2020
3. William G. Zikmund et al., Business Research Methods – South Asian Perspective, Cengage, 9th Ed., 2018
4. Alan Bryman & Emma Bell, Business Research Methods, Oxford University Press, 5th Ed., 2019
5. R. Paneerselvam, Research Methodology, PHI Learning, 2nd Ed., 2015
6. Mark Saunders, Philip Lewis, Adrian Thornhill, Research Methods for Business Students, Pearson, 8th Ed., 2022
7. Davis Bunn & Jennie Tranter, Business Research and Statistics Using Excel, Wiley, 1st Ed., 2021

E-Resources:

- ✧ Harvard Business Review – Research Insights
- ✧ SAGE Research Methods Library
- ✧ Elsevier – Researcher Academy
- ✧ StatSoft Textbook – Statistics and Analytics
- ✧ Coursera – Data-Driven Decision Making (PwC)
- ✧ Google Forms & SurveyMonkey – Data Collection Tools

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the research process, various research designs, data collection methods, analytical techniques, report writing, and emerging trends and ethical considerations in business research.
- **CO2:** Interpret and relate research questions and objectives to appropriate research designs, measurement scales, sampling techniques, and data analysis methods for conducting scientific inquiry.
- **CO3:** Apply research design principles, instrument construction, data collection methods, and statistical software to collect, prepare, and analyze both qualitative and quantitative data.
- **CO4:** Analyze the validity and reliability of research instruments, the outcomes of bivariate and multivariate statistical analyses, and the ethical implications of a research project to derive meaningful insights and conclusions.

- **CO5:** Evaluate different research methodologies, data analysis techniques, and ethical dilemmas in business research to ensure the integrity, objectivity, and reliability of research findings.
- **CO6:** Develop a comprehensive, ethically sound business research report by integrating knowledge of research design, data collection, analytical methods, and emerging technologies to support data-driven managerial decision-making.

Internal Assessment Methodology – 100 Marks

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix::

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	3	2	3	2
CO2	3	3	3	3	3	3	3
CO3	3	2	3	3	2	3	3
CO4	3	3	3	3	3	3	2
CO5	3	3	3	2	2	2	3
CO6	2	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25202 **Business Analytics** **L T P C**
4 0 0 4

Course Objectives:

This course aims to introduce students to the foundational principles and applications of Business analytics for effective decision-making. It equips learners with the knowledge to identify appropriate tools for descriptive, predictive, and prescriptive analytics. This course also explores real-world applications and Business cases to enhance problem-solving and analytical thinking. The course emphasizes the strategic use of data, resource management, and technology integration for competitive advantage. Upon completion, students will be able to model and analyse Business problems using contemporary analytics techniques.

Foundations of Business Analytics

Business Analytics – Importance – Business Analytics Process – Relationship between Business Analytics and Organizational Decision Making – Business Analytics for Competitive Advantage – Strategic role of analytics.

Data and Resource Management in Analytics

Managing Analytics Infrastructure – Human Resources and Data Requirements – Aligning Organizational Structure with BA – Role of Technology – Information Policy – Data Governance – Data Quality Management – Change Management in BA.

Descriptive Analytics and Visualization

Descriptive Analytics – Visualizing and Exploring Data – Descriptive Statistics – Sampling Techniques – Estimation Methods – Probability Distributions used in Descriptive Analytics – Use of dashboards and visualization tools.

Predictive Analytics and Data Mining

Predictive Analytics – Predictive Models – Data-driven vs. Logic-driven Models – Predictive Modeling Procedures – Supervised vs. Unsupervised Learning – Reinforcement Learning – Data Mining Techniques – Association Analysis and Cluster Analysis – Model Validation – Application in Business cases.

Prescriptive Analytics and Optimization

Prescriptive Analytics – Prescriptive Modeling Techniques – Non-linear Optimization – Simulation – Scenario Planning – Demonstrating Business Performance Improvement – Role of decision support systems.

Applications and Emerging Trends in BA

Industry applications in Marketing, HR, Finance, and Operations – Real-time analytics – AI & ML integration – Cloud-based BA tools – Business Intelligence vs. BA – Ethics in Analytics – Case Studies on contemporary analytics usage.

References:

1. Marc J. Schniederjans, Dara G. Schniederjans, Christopher M. Starkey, Business Analytics: Principles, Concepts, and Applications, Pearson, 1st Ed., 2022
2. Christian S. Albright & Wayne L. Winston, Business Analytics: Data Analysis and Decision Making, Cengage, 6th Ed., 2019
3. James R. Evans, Business Analytics: Methods, Models and Decisions, Pearson, 3rd Ed., 2020
4. U Dinesh Kumar, Business Analytics: The Science of Data-Driven Decision Making, Wiley, 2nd Ed., 2021
5. N. D. Vohra, Quantitative Techniques in Management, McGraw Hill, 6th Ed., 2021

E-Resources:

- ✧ Harvard Business Review: https://hbr.org/topic/Business-analytics
- ✧ IBM Data and AI Blog: https://www.ibm.com/blogs/watson

- ✧ Microsoft Learn for Data Analytics: https://learn.microsoft.com/en-us/training/paths/analyze-data-power-bi
- ✧ Coursera (Business Analytics): https://www.coursera.org/specializations/Business-analytics
- ✧ Tableau Public Learning: https://public.tableau.com/en-us/s/resources
- ✧ Kaggle (Datasets and Analytics Cases): https://www.kaggle.com/

Course Outcomes

At the end of the course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of Business Analytics fundamentals, data and resource management, descriptive analytics, predictive modeling, prescriptive techniques, and their application in various industries with an ethical perspective.
- **CO2:** Interpret and relate the strategic role of Business Analytics, data governance, and technology infrastructure to descriptive statistics, predictive models, prescriptive methods, and emerging trends to inform managerial decisions.
- **CO3:** Apply descriptive, predictive, and prescriptive analytics techniques, including data visualization, statistical analysis, data mining, and optimization, to explore, forecast, and solve business problems using appropriate software and tools.
- **CO4:** Analyze complex business problems by integrating knowledge of data requirements, analytical methods (descriptive, predictive, and prescriptive), and model validation to derive meaningful insights for competitive advantage.
- **CO5:** Evaluate the effectiveness of different analytical models and techniques, including descriptive statistics, predictive algorithms, and prescriptive optimization methods, to recommend optimal business solutions and demonstrate performance improvements.
- **CO6:** Develop a data-driven business analytics strategy by synthesizing knowledge of foundational concepts, data management, analytical techniques, and emerging trends (AI/ML) to solve industry-specific problems and adhere to ethical standards.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix::

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	3	3	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO2	3	3	3	2	3	3	2
CO3	2	3	3	2	3	2	3
CO4	3	3	2	3	3	3	3
CO5	3	2	3	3	3	3	3
CO6	2	3	2	2	3	2	2

Note: **1 – Low, 2 – Medium, 3 – High**

MB25C10 **Marketing Management** **L T P C**
4 0 0 4

Course Objectives:

This course aims to develop a comprehensive understanding of marketing fundamentals, strategic planning, and marketing mix decisions in dynamic global and digital environments. Students will learn to analyze buyer behavior, develop market-driven strategies, and apply contemporary tools in digital and social media marketing. The course also equips learners with skills in customer relationship management, ethical marketing practices, and data-driven decision-making. Emphasis is placed on real-world application through case analysis, marketing research, and simulations aligned with global and Indian Business scenarios.

Foundations of Marketing and Business Environment

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 – Production, Finance, Human Relations Management, Information System − Marketing in global environment – International Marketing − Rural Marketing − Prospects and Challenges.

Strategic Marketing and Market Segmentation

Marketing strategy formulations – Key Drivers of Marketing Strategies - Strategies for Industrial Marketing – Consumer Marketing − Services marketing – Competition Analysis − Analysis of consumer and industrial markets − Influence of Economic and Behavioral Factors − Strategic Marketing Mix components.

Product, Pricing, and Channel Decisions

Product planning and development – Product life cycle – New product Development and Management – Defining Market Segmentation – Targeting and Positioning − Brand Positioning and Differentiation – Channel Management – Managing Integrated Marketing Channels − Managing

Retailing, Wholesaling and Logistics − Advertising and Sales Promotions – Pricing OBJECTIVE, Policies and Methods

Consumer and Organizational Buyer Behavior

Understanding Industrial and Consumer Buyer Behavior − Influencing factors – Buyer Behaviour Models – Online buyer behaviour − Building and measuring customer satisfaction – Customer relationships management – Customer acquisition, Retaining, Defection − Creating Long Term Loyalty Relationships.

Marketing Research and Data-Driven Decision Making

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 - social media and digital marketing.

Contemporary Trends and Ethical Marketing

Cause-Related and Sustainable Marketing – Ethical and Legal Aspects in Marketing – Green Marketing – Social Media Marketing – Influencer and Content Marketing – Mobile and Digital Marketing Trends – Personalization and Marketing Automation – Emerging Tools in Digital Marketing (SEO, SEM, Email, Analytics) – Customer-Centric Marketing Organizations.

References:

1. Philip Kotler & Kevin Lane Keller, Marketing Management, 16th Ed., Pearson, 2022
2. Paul Baines, Chris Fill, Kelly Page, Marketing, Oxford University Press, 6th Ed., 2023
3. V.S. Ramaswamy & S. Namakumari, Marketing Management: Global Perspective Indian Context, Macmillan, 7th Ed., 2023
4. Lamb, Hair, Sharma, McDaniel, Marketing: South Asian Perspective, Cengage Learning, 2012
5. K.S. Chandrasekar, Marketing Management – Text and Cases, Tata McGraw Hill, 2012
6. Rajan Saxena, Marketing Management, McGraw Hill Education, 6th Ed., 2023
7. Michael Solomon, Consumer Behavior: Buying, Having, and Being, Pearson, 14th Ed., 2023
8. Jean-Noël Kapferer, The New Strategic Brand Management, Kogan Page, 6th Ed., 2020

E-Resources:

- ✧ HubSpot Academy – Digital Marketing
- ✧ Google Digital Garage – Fundamentals of Digital Marketing
- ✧ Think with Google – Consumer Insights
- ✧ Statista – Marketing Statistics
- ✧ HBR Marketing Resources
- ✧ Coursera – Marketing in a Digital World (Illinois)

Course Outcomes

On successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of marketing fundamentals, strategic marketing, product and pricing decisions, consumer behavior, marketing research, and contemporary trends like digital and ethical marketing.
- **CO2:** Interpret and relate marketing concepts, environmental analysis, strategic marketing mix components, consumer behavior models, and marketing research processes to understand the dynamics of a market.
- **CO3:** Apply marketing principles to develop market segmentation, targeting, and positioning strategies; design product, pricing, and channel decisions; and create customer relationship management programs.
- **CO4:** Analyze the marketing environment, strategic marketing mix components, consumer and industrial buyer behavior, and marketing information systems to make data-driven decisions and develop effective marketing strategies.
- **CO5:** Evaluate the effectiveness of different marketing strategies, including product and pricing decisions, advertising campaigns, and digital marketing trends, to build a competitive and sustainable brand.
- **CO6:** Develop a comprehensive marketing strategy by integrating knowledge of marketing fundamentals, consumer behavior, market research, and emerging digital and ethical practices to achieve organizational goals.

Internal Assessment Methodology – Total: 100 Marks

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix: :

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	3	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	3	3	2	2	3
CO4	3	3	3	2	3	3	2
CO5	2	3	3	3	3	3	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25203	Creativity and Innovation Laboratory	L T P C 0 0 4 2

Course Objectives:

This course aims to enable students to understand and apply creative thinking and innovation principles in problem-solving. It blends theory and practice to cultivate the ability to generate novel ideas, visualize innovative concepts, and apply design thinking techniques. The course explores heuristic models, tools for directed creativity, and disruptive innovation frameworks. Through hands-on activities and real-world projects, learners will acquire the mindset and tools required to ideate and develop innovative products, services, or solutions in Business contexts.

Foundations of Creativity and Innovation

Importance of creative thinking in Business – Directed creativity theories – Components of creativity – Organizational and individual creativity – Innovation types – Barriers to innovation – Innovation process – Assessing creativity and innovation.

Thinking Mechanisms and Visualization Techniques

Cognitive mechanisms and heuristics – Models supporting creative thinking – Visual elements and design principles (line, form, texture, color, symmetry) – Spatial composition – Basics of computer animation – Aerodynamics - Scientific visualization and benchmarking.

Understanding Creativity and its Dimensions

Creativity components: Person, Process, Product, Environment – ICEDIP model (Inspiration, Clarification, Distillation, Perspiration, Evaluation, Incubation) – Motivation and rewards in creativity – Tools for directed creative stimulation – Applying creativity in innovation.

Creativity in Design and Problem Solving

Generating and developing ideas – Product and service design – Six Thinking Hats – Lateral Thinking – Contextual influences on creativity – Personal creativity assessment – Hands-on exercises and case-based simulations.

Innovation Tools and Methodologies

Types of innovation: Radical, Evolutionary – TRIZ methodology for inventive problem solving – Disruptive innovation and new market disruption – Strategic innovation models – Entrepreneurial tools for innovation development.

Innovation Lab – Practice-Based Project

Workshop format – Students ideate, design, and build an innovative product or service – Design Thinking framework – Prototyping – Peer review – Final presentation and evaluation by faculty panel – Focus on problem-solving, teamwork, and creativity.

Note: Students will undergo the entire programme similar to a Seminar. It is an activity-based course. Students will undergo the programme with both theoretical and practical content. Each student will be required to come out with innovative products or services. This will be evaluated by the faculty member(s) handling the course and the consolidated marks can be taken as the final mark. No end semester examination is required for this course

References:

1. Floyd Hurt, Rousing Creativity: Think New Now, Crisp Publications,
2. Geoffrey Petty, How to Be Better at Creativity, Industrial Society, 2012
3. Clayton Christensen & Michael Raynor, The Innovator's Solution, Harvard Business School Press, 2024
4. Semyon D. Savransky, Engineering of Creativity – TRIZ, CRC Press, 2000
5. C. S. G. Krishnamacharyulu & Lalitha R., Innovation Management, Himalaya Publishing House, 2013
6. Jeanne Liedtka, Design Thinking for the Greater Good, Columbia Business School Publishing, 2017
7. Edward de Bono, Six Thinking Hats, Penguin (Little, Brown & Company)

E-Resources:

- ✧ IDEO U – Creative Problem Solving
- ✧ MIT OpenCourseWare – Innovation and Design Thinking
- ✧ Interaction Design Foundation – Innovation Resources
- ✧ Harvard Business Review – Innovation Articles
- ✧ TRIZ Journal
- ✧ Coursera: Creative Problem Solving

Course Outcomes

After successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of creativity and innovation, heuristic models and visualization techniques, the components of creativity, design and problem-solving, innovation methodologies, and the practical application of design thinking in a lab setting.
- **CO2:** Interpret and relate the principles of creative thinking, directed creativity theories, cognitive mechanisms, the ICEDIP model, and innovation tools to understand the process of generating and developing new ideas and solutions.
- **CO3:** Apply heuristic models, visualization techniques, directed creative stimulation tools, and design thinking approaches to generate, develop, and prototype innovative products or services in a collaborative environment.
- **CO4:** Analyze the nature of creativity, cognitive mechanisms, the six thinking hats framework, and innovation methodologies like TRIZ and disruptive innovation to solve business problems and assess the potential of new ideas.
- **CO5:** Evaluate different creative and innovation models, design thinking approaches, and strategic innovation frameworks to assess their effectiveness in fostering innovation and addressing complex business challenges.
- **CO6:** Develop a comprehensive innovation project by integrating knowledge of creativity fundamentals, design thinking, innovation tools, and collaborative lab activities to create and present a viable and innovative product or service.

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	2	3	2	2	1	2	2
CO3	3	3	2	1	2	2	3
CO4	3	3	3	3	2	3	3
CO5	2	3	3	2	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25204 Data Analysis and Business Modeling (Laboratory) L T P C
0 0 4 2

Course Objectives:

This course is designed to provide practical knowledge and hands-on experience in applying data analysis techniques for solving Business problems. The learners will be equipped with the use of spreadsheet tools and analytical software for descriptive statistics, hypothesis testing, forecasting, and modeling. Emphasis is laid on Business applications like risk analysis, revenue management, and optimization models using real-world data. The course integrates advanced decision-making techniques and prepares learners for data-driven strategic and operational decision-making in various functional domains.

Data Description and Hypothesis Testing

Descriptive statistics – Data visualization – Measures of central tendency and dispersion – Parametric tests (t-test, ANOVA) – Non-parametric tests (Chi-square, Mann–Whitney U test) – Interpretation using spreadsheet software or R/Python.

Correlation, Regression and Forecasting

Bivariate and multivariate correlation – Simple and multiple regression analysis – Interpretation of coefficients – Forecasting using time series data – Moving averages – Exponential smoothing – Real-time forecasting models.

Financial Modeling for Business Decisions

Portfolio selection – Scenario analysis – Sensitivity analysis – Risk and return measures – Application in investment decision-making – Simulation techniques in Excel.

Revenue Management and Optimization

Revenue maximization principles – Pricing decisions – Capacity allocation – Data modeling for revenue optimization – Real-life case modeling in Excel / Python.

Operations Research Models for Business

Linear programming using Solver – Transportation models – Assignment problems – Network models – Application of Queuing theory – Waiting line models – Inventory control models.

Integrated Lab Projects and Advanced Excel Tools

Use of Solver, Data Analysis Toolpak, Power Query – Mini project integrating multiple models – Dashboard preparation – Report generation and decision support system development using spreadsheet / analytics software.

Note: Spreadsheet Software and Data Analysis Tools

References:

1. David R. Anderson et al., An Introduction to Management Sciences, South-Western College, 16th Ed., 2024
2. William J. Stevenson & Ceyhun Ozgur, Introduction to Management Science with Spreadsheet, McGraw-Hill, 2009
3. Hansa Lysander Manohar, Data Analysis and Business Modeling using Microsoft Excel, PHI, 2017
4. David M. Levine et al., Statistics for Managers using MS Excel, Pearson, 9th Ed., 2021
5. Albright, Winston & Zappe, Data Analysis for Managers with Microsoft Excel, Cengage, 6th Ed., 2019
6. Wayne L. Winston, Microsoft Excel Data Analysis and Business Modeling, Pearson / Microsoft Press, 7th Ed., 2021

E-Resources:

- ✧ https://www.solver.com/ – Excel Solver Tutorials
- ✧ https://dataanalysisfordummies.com
- ✧ https://www.analyticsvidhya.com
- ✧ https://exceljet.net/ – Excel tips and tutorials
- ✧ https://statisticalhorizons.com – Applied statistics resources

Course Outcomes

After completing this course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of descriptive statistics, hypothesis testing, regression analysis, financial modeling, optimization techniques, and integrated dashboard creation for data-driven business decisions.
- **CO2:** Interpret and relate descriptive statistics, regression models, time series data, financial modeling concepts, operational research models, and advanced Excel tools to understand business problems and analytical solutions.

- **CO3:** Apply statistical techniques, regression analysis, time series models, financial modeling concepts, and optimization methods to analyze data, perform forecasting, and solve business problems.
- **CO4:** Analyze business data using statistical tests, correlation and regression analysis, and operational research models to interpret relationships, forecast outcomes, and evaluate potential solutions.
- **CO5:** Evaluate various analytical models and techniques, including financial, revenue management, and operations research models, to make informed decisions and optimize business performance.
- **CO6:** Develop integrated analytical solutions, including dashboards and reports, by applying statistical methods, forecasting models, and optimization techniques to support data-driven decision-making in a comprehensive business context.

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	3	2	2	3	2
CO3	3	3	3	3	3	3	2
CO4	2	2	3	2	3	2	3
CO5	3	3	3	3	2	3	3
CO6:	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

Semester III

MB25C12	Strategic Management	L T P C
		4 0 0 4

Course Objectives:

This course equips students with a comprehensive understanding of strategic management frameworks and their application across dynamic Business environments. It focuses on strategic thinking, environmental analysis, corporate governance, competitive advantage, and Business model innovation. Students will learn to formulate, implement, and evaluate strategies that align with organizational goals in global and local contexts. Emphasis is placed on real-world case analysis, ethical decision-making, and adapting to technological and global disruptions.

Strategic Foundations and Stakeholder Analysis

Concept of strategy and strategic management - Strategic management process and hierarchy of strategy - Mission, vision, objectives and goal setting - Stakeholder analysis – Corporate governance and social responsibility - Strategic intent and ethical -considerations – Case analysis

Environmental and Competitive Analysis

External environment: PESTEL and SWOT framework - Porter's Five Forces and strategic group mapping - Globalisation and industry structure – Role of national advantage - Internal analysis: Resources, capabilities, core competencies - Sustainable competitive advantage and barriers – Case analysis

Strategic Formulation at Corporate and Business Levels

Corporate-level strategies: Stability, expansion, retrenchment, combination - Business-level strategies: Cost leadership, differentiation, focus - Strategic alliances, mergers and acquisitions, vertical integration - Tools: ETOP, Strategic Advantage Profile, BCG matrix, GE 9 Cell, McKinsey 7S, Gap Analysis - Balanced Scorecard for strategic alignment – Case analysis

Strategy Implementation and Organizational Design

Strategy implementation framework – Role of structure and systems - Resource allocation – Strategic control systems - Leadership, power, and politics in strategy execution - Organizational design: structure-culture fit - Managing strategic change and resistance – Case analysis - Conflict techniques in strategic evolution.

Innovation, Disruption, and Strategic Technology Management

Strategic innovation and technology adoption - Business models in the digital era – Platform economy and gig models - Strategic issues in non-profit and social enterprises - Innovation ecosystems and open innovation models - New economy strategies and global innovation – Case analysis

Emerging Trends and Challenges in Strategy

Strategic management in uncertain and volatile environments - Cultural alignment and organizational development - Change management strategies - Strategic agility, foresight, and scenario planning - Strategic management in a post-pandemic global economy

References:

1. Hill, Schilling & Jones, Strategic Management: An Integrated Approach, Cengage, 14th Ed., 2024
2. Azhar Kazmi, Strategic Management and Business Policy, Tata McGraw-Hill, 5th Ed., 2024
3. John A. Parnell, Strategic Management: Theory and Practice, Biztantra,
4. Lawrence G. Hrebiniak, Making Strategy Work, Pearson, 2nd Ed., 2013
5. Lafley A. G. & Martin R. L., Playing to Win: How Strategy Really Works, HBR Press, 2013
6. Gupta, Gollakota & Srinivasan, Business Policy and Strategic Management, PHI, 2005
7. John Pearce & Richard Robinson, Strategic Management, McGraw Hill, 14th Ed., 2019

E-Resources:

- ✧ NPTEL: Strategic Management (IIM Bangalore) – https://nptel.ac.in
- ✧ McKinsey Insights – Strategy & Corporate Finance – https://www.mckinsey.com
- ✧ BCG Perspectives – https://www.bcg.com
- ✧ Harvard Business Review Strategy Articles – https://hbr.org
- ✧ Coursera: Strategic Management by Copenhagen Business School

Course Outcomes

By the end of the course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of strategic management, environmental and competitive analysis, corporate and business-level strategies, strategy implementation, innovation management, and emerging trends and challenges in strategy.
- **CO2:** Interpret and relate the concepts of strategy, competitive advantage, corporate and business-level strategies, organizational design, innovation, and strategic agility to understand the strategic management process.
- **CO3:** Apply strategic frameworks, analytical tools (e.g., PESTEL, Porter's Five Forces), and strategic alternatives to formulate and implement strategies at both corporate and business levels.
- **CO4:** Analyze the internal and external environments, different strategic alternatives, and organizational design models to evaluate competitive advantage, manage change, and ensure effective strategy implementation.
- **CO5:** Evaluate corporate and business-level strategies, innovation models, and change management approaches to make informed decisions and address strategic challenges in dynamic environments.
- **CO6:** Develop a comprehensive strategic plan by integrating knowledge of strategic analysis, formulation, implementation, innovation, and emerging trends to foster a culture of strategic agility and competitive advantage in a global context.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	3	2	3	3
CO4	3	2	3	3	2	3	3
CO5	2	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25301 **International Business** **LT P C**
4 0 0 4

Course Objectives:

This course is designed to equip students with a comprehensive understanding of international Business operations, the global economic environment, and strategic approaches for cross-border Business success. It introduces the key theories of international trade, investment, and market entry strategies while integrating managerial aspects like global production, marketing, finance, HR, and ethics. The course prepares learners to operate effectively in multinational corporations and navigate cultural, legal, and strategic complexities in globalized Business environments.

Introduction to International Business

Definition and drivers of International Business- Organisational issues of IB - Changing Environment of International Business- Country attractiveness- Trends in Globalization- Effect and Benefit of Globalization-International Institution: UNCTAD Basic Principles and Major Achievements, Role of IMF, Features of IBRD, Role and Advantage of WTO - Changing environment and emerging markets.

International Trade and Investment Theories

Classical and modern trade theories: Mercantilism, Absolute Advantage, Comparative Advantage, Heckscher-Ohlin – FDI theories: Product Life Cycle, Eclectic Paradigm, Market Power, Internalization Theory – Trade policy instruments: VERs, Administrative Policy, Anti-dumping, Balance of Payments.

Global Market Entry and Strategic Choices

Strategic compulsions for internationalization – Global portfolio strategies – Market entry modes: exporting, licensing, franchising, joint ventures, wholly-owned subsidiaries – Organizational structures and control in global firms – Performance evaluation and management of international operations.

Global Operations and Financial Management

Global production: Location, scale of operations- cost of production- Standardization Vs Differentiation- Make or Buy decisions- global supply chain issues- Quality considerations. Globalization of markets: Marketing strategy- Challenges in product development- pricing-production and channel management. Foreign Exchange Determination Systems: Basic Concepts-types of Exchange Rate Regimes- Factors Affecting Exchange Rates.

Cross-Cultural and HR Management

Selection of expatriate managers- Managing across cultures -Training and development-Compensation- Disadvantages of international Business – Conflict in international Business-Sources and types of conflict – Conflict resolutions – Negotiation –Ethical issues in international Business – Ethical decision-making. .

Emerging Trends and Global Challenges

Digital transformation in global Business – E-commerce and borderless economies – Global sustainability and ESG imperatives – Political risk and compliance – Recent developments in international trade agreements – Resilience in global supply chains – Geopolitical influences on Business strategy.

References:

1. Charles W. L. Hill & Arun Kumar Jain, International Business, McGraw Hill, 7th Ed., 2024
2. Michael R. Czinkota et al., International Business, Cengage Learning, 9th Ed., 2023
3. K. Aswathappa, International Business, McGraw Hill, 7th Ed., 2023
4. John D. Daniels, Lee H. Radebaugh & Daniel P. Sullivan, International Business, Pearson, 17th Ed., 2023
5. Rakesh Mohan Joshi, International Business, Oxford University Press,2019
6. Vyuptakesh Sharan, International Business: Concepts, Environment and Strategy, Pearson, 5th Ed., 2024

E-Resources:

- ✧ World Trade Organization – Reports & Updates
- ✧ International Monetary Fund Publications
- ✧ World Bank Knowledge Hub

- ✧ OECD International Trade and Investment
- ✧ UNCTAD Reports and Databases
- ✧ MIT OpenCourseWare – Global Business
- ✧ [YouTube Channels: Harvard Business Review, IMF Videos, WTO News]

Course Outcomes

After completing this course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of the drivers of international business, trade and investment theories, global market entry strategies, multinational operations and finance, cross-cultural management, and emerging global trends and challenges.
- **CO2:** Interpret and relate the roles of international institutions, trade and investment theories, market entry modes, global production and financial systems, cross-cultural HR practices, and emerging digital and sustainable trends to the changing environment of international business.
- **CO3:** Apply theories of trade and investment, market entry strategies, global production and supply chain concepts, and ethical decision-making frameworks to address challenges in a multinational business context.
- **CO4:** Analyze the impact of globalization, trade policies, market entry options, foreign exchange systems, and cross-cultural differences to assess risks and opportunities for a global firm.
- **CO5:** Evaluate different global strategies, market entry modes, HR practices, and ethical challenges to recommend optimal approaches for a multinational corporation.
- **CO6:** Develop a comprehensive international business strategy by integrating knowledge of trade theories, market entry, global operations, cross-cultural management, and emerging trends to foster a resilient and ethically responsible organization.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	3	2	2
CO2	3	3	2	2	2	3	2
CO3	3	3	3	2	2	3	3
CO4	3	2	3	2	2	2	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO5	2	3	3	3	3	2	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25302 Capstone Simulation - Laboratory L T P C
0 0 4 2

Course Objectives:

This course is designed to provide hands-on experiential learning through simulated Business environments that mirror real-time strategic decision-making. It aims to enhance students' understanding of integrated Business functions such as marketing, operations, finance, and R&D in a dynamic, competitive context. Students will develop long-term, mid-term, and short-term strategies and learn how to align these with changing external variables. The course fosters the ability to analyze strategic frameworks, develop Business assumptions, and measure performance through various analytical tools. It ultimately sharpens students' capabilities in strategic thinking, team collaboration, and simulation-based learning.

Introduction to Strategic Simulation

Course overview – Business scenario and key variables – Introduction to the simulation platform – Practice Rounds 1 & 2 – Strategy formulation basics – Strategy roadmap: Objective, scope, and competitive advantage – Result analysis and doubt clarification.

Strategy Formulation and Growth Horizons

Creating long, mid, and short-term strategies – Business analysis – Integrated decision-making process – Actual Round 1 – DuPont Analysis – Reflection on decision outcomes.

Business Assumptions and Demand Forecasting

Theory of Business – Identifying sound assumptions – Forecasting demand and market behavior – Actual Round 2 – Decision-making and performance review – Tactical adjustments.

Strategic Frameworks and Competitive Analysis

Overview of major strategy frameworks – SWOT, Porter's Five Forces, Value Chain Analysis – Application in simulation context – Actual Rounds 3 & 4 – Analysis and feedback loops.

Metrics-Based Decision Making

Use of metrics in marketing, operations, and financial decisions – KPI setting and interpretation – Actual Rounds 5, 6 & 7 – Impact analysis of metrics on performance – Strategy refinement.

Reflection, Execution, and Mid-Course Corrections

Final Round 8 – Strategic review – Lessons learned – Reflection on decisions, outcomes, and corrections – Linking simulation experience to real-world Business strategy.

References:

1. Nikhil D. Jonathan & Preetha G, Participant Handbook – Capstone Simulation, KCT Press

2. Henry Mintzberg, Bruce Ahlstrand & Joseph Lampel, Strategy Safari, Pearson Education, 2nd Edition, 2020
3. A. A. Thompson, Margaret Peteraf, John E. Gamble & A. J. Strickland III, Crafting and Executing Strategy, McGraw Hill, 23rd Edition,2022
4. Harvard Business Review Articles on Business Simulation and Strategic Thinking — not a single book, but articles frequently updated.
5. Pankaj Ghemawat, Commitment: The Dynamic of Strategy, Free Press

E-Resources:

- ✧ https://www.strategysimulation.com – Simulation-based learning
- ✧ Harvard Business Publishing Education: https://hbsp.harvard.edu
- ✧ MIT Sloan LearningEdge: https://mitsloan.mit.edu/LearningEdge/
- ✧ https://www.duedashboard.com – Real-time KPI monitoring tools
- ✧ YouTube Learning: "Capstone Business Simulation Strategy Tutorials"

Course Outcomes

By the end of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of strategic frameworks, integrated business functions, key performance metrics, and the process of strategic decision-making within a simulated, competitive environment.
- **CO2:** Interpret and relate strategic frameworks, business assumptions, demand forecasts, and performance metrics to formulate and adapt long-term and short-term strategies across various business functions.
- **CO3:** Apply strategic frameworks like SWOT and Porter's Five Forces, forecasting techniques, and metrics-based decision-making to develop and execute strategies in a simulated business environment.
- **CO4:** Analyze business scenarios, competitive environments, and simulation outcomes using tools like DuPont Analysis to refine strategic plans and make informed, mid-course corrections.
- **CO5:** Evaluate the effectiveness of strategic decisions, business assumptions, and performance metrics to understand their impact on competitive advantage and overall business performance in the simulation.
- **CO6:** Develop a comprehensive business strategy by integrating knowledge of strategic frameworks, functional area decisions, performance metrics, and team collaboration to lead a simulated company to success.

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	3	2	3	2
CO2	3	3	2	3	2	3	3
CO3	2	3	3	2	2	2	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO4	3	3	2	3	3	3	3
CO5	2	3	3	2	2	2	2
CO6	3	2	3	3	2	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25303 **Summer Internship** **L T P C**
0 0 4 2

Summer internship – minimum of 4 weeks of internship

The report along with the company certificate should be submitted within the two weeks of the reopening date of 3rd semester. The report should be around 40 pages. The report should be sent to the Controller of Examinations by the HOD through the Principal, before the last working day of the 3rd Semester.

NON – FUNCTIONAL ELECTIVES

MB25C06	Entrepreneurship Development	L	T	P	C
		3	0	0	3

Course Objectives:

This course aims to equip the knowledge and skills to identify entrepreneurial opportunities, develop a comprehensive business plan, and manage the lifecycle of a startup, from launch to sustainable growth. It integrates theoretical frameworks with practical applications of the entrepreneurial ecosystem and ethical business practices.

Entrepreneurial Mindset and Competencies: Entrepreneurship concept – Entrepreneurship as a Career – Entrepreneurial Personality - Characteristics of Successful Entrepreneurs – Knowledge and Skills of an Entrepreneur.

Entrepreneurial Ecosystem and Policy Support: Entrepreneurial Environment – Role of Family, Society and Culture – Government Industrial Policies – State and Central Schemes (Startup India, Stand-Up India, PMEGP, MSME) – Role of DICs, SIDBI, EDII, TBI, DST, NSIC – Role of Industry Associations and Support Services – Incubation Centers and Accelerators – International Policy Ecosystem (Global Innovation Index, GEM).

Opportunity Identification and Business Planning: Sources of Product for Business - Prefeasibility Study - Criteria for Selection of Product - Ownership - Capital Budgeting- Project Profile Preparation - Matching Entrepreneur with the Project - Feasibility Report Preparation and Evaluation Criteria.

Launching the Startup and Funding Mechanisms: Finance and Human Resource Mobilisation - Operations Planning - Market and Channel Selection -Growth Strategies - Product Launching – Incubation, Venture capital, Start-ups.

Managing and Scaling the Business: Small Business Operations – Inventory, Finance, and People Management – Customer Acquisition and Retention – Digital Tools for Small business – Measuring Business Performance – Managing Uncertainty and Change – Business Model Innovation – Lean Startup Strategy – Scaling Frameworks – Case Studies on Growth-Oriented Startups.

Business Sustainability, Exit Strategies, and Ethics: Monitoring and Evaluation of Business - Business Sickness - Prevention and Rehabilitation of Business Units - Effective Management of small Business - Case Studies.

References:

1. Khanka, S. S. (2020). Entrepreneurial development (Rev. ed.). S. Chand & Company Ltd.
2. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2024). Entrepreneurship (12th ed.). McGraw Hill.
3. Roy, R. (2020). Entrepreneurship (3rd ed.). Oxford University Press.
4. Kumar, A. (2012). Entrepreneurship. Pearson Education.
5. Chandra, P. (2023). Projects – Planning, analysis, selection, implementation and review (10th ed.). Tata McGraw Hill.
6. Murthy, N., & Tata, R. Biographical and interview compilations.

E-Resources:

4. Startup India Portal https://www.startupindia.gov.in/
5. YourStory https://yourstory.com/

MB25104	Event Management	L	T	P	C
		3	0	0	3

Course Objectives:

This course provides theoretical and practical skills to plan, execute, and evaluate various types of events. It focuses on the core aspects of event management, including conceptualization, marketing, legal compliance, and risk management, to ensure successful and impactful events.

Foundations of Event Management: History and evolution of event management – Types of events – MICE (Meetings, Incentives, Conferences, and Exhibitions) – Event industry structure – Event management as a profession – Perspectives: Government, Corporate, Community – Professional ethics and codes of conduct.

Event Design and Conceptualization: Event ideation – Roles of host, sponsor, media, participants, spectators, crew – Designing the event concept – Theme and content development – Setting event objectives – Functional sheets – Timeline planning – Budget preparation – Budget checklist.

Legal and Regulatory Aspects: Contracts and agreements – Event insurance – Licenses and permits – Government regulations and compliance – Negotiation techniques – Risk mitigation through legal frameworks.

Event Marketing and Sponsorship: Strategic event marketing – Pricing decisions – Communication channels – Integrated marketing communication – Sponsorship planning and management – Evaluation of sponsorship effectiveness – Role of digital marketing in events.

Operations and Logistics; Venue and site selection – Infrastructure requirements: AV, lighting, catering, stage, décor – Protocols and guest management – Freelance event operations – Event day logistics – On-site execution and supply coordination – Managing children, media, and entertainment – Vendor management.

Risk, Safety and Event Evaluation: Risk identification and assessment – Safety planning – Food safety – Fire and structural safety – Crowd and traffic control – Waste and sanitation – Post-event evaluation – Customer satisfaction – Service quality – Measuring event impact.

References:

1. Lynn Van der Wagen & Louise H. Event Management for Tourism, Cultural Business & Sporting Events, now 6th Ed., Pearson, 2023
2. Judy Allen – Event Planning, 4th Ed., Wiley, Canada, 2020 — includes expanded ethics and social media modules.
3. John Beech, Sebastian Kaiser & Robert Kaspar – The Business of Events Management, 2nd Ed., Pearson, 2019
4. Julia Rutherford Silvers – Professional Event Coordination, 3rd Ed., Wiley, 2022
5. Shannon Kilkenny – The Complete Guide to Successful Event Planning, 3rd (Revised) Ed., Atlantic Publishing, December 2021

E-Resources:

1. Event Manager Blog https://eventmanagerblog.com
2. YouTube Learning: Event planning simulations, interviews, and behind-the-scenes operations

MB25001 Security Analysis and Portfolio Management L T P C
3 0 0 3

Course Objectives:

This course is designed to equip students with a comprehensive understanding of the financial markets, investment alternatives, and portfolio management strategies. Learners will explore the techniques of security valuation, conduct economic and industry analysis, and understand models such as CAPM and APT for asset pricing. The course enables students to construct and manage efficient portfolios while assessing performance using established evaluation metrics. A blend of analytical tools and contemporary practices offers insights into mutual funds, risk-return optimization, and behavioral aspects of investment.

Investment Environment and Basics

Financial and economic meaning of investment – Characteristics and objectives – Types of investment avenues – Investment process – Investment alternatives – Choice and evaluation – Concepts of risk and return – Time value of money – Valuation of bonds and stocks.

Fundamental Analysis and Valuation Techniques

Economic analysis and forecasting – Industry analysis: classification, lifecycle, structure – Company analysis: financial statements, forecasting earnings – Tools for valuation – Investor ratios – Graham and Dodd model (Problem) – Qualitative and quantitative factors in valuation.

Technical Analysis and Market Indicators

Basics of technical analysis – Chart patterns – Trend analysis – Dow Theory – Moving averages – Indicators and oscillators - RSI -ROC - MACD – Emprical test - Market efficiency hypothesis – Behavioural finance overview – Contrarian strategies – Sentiment indicators – Decision-making under uncertainty.

Portfolio Construction and Selection

Risk diversification and return maximization – Portfolio theory – Markowitz Model – Feasible and efficient frontier – Single-index model – Construction of optimal portfolios – Multi-index models – Portfolio diversification strategies.

Capital Asset Pricing and Evaluation Models

Capital Asset Pricing Model (CAPM) (Problem) – Assumptions – Security Market Line (SML) – Capital Market Line (CML) – Arbitrage Pricing Theory (APT) – Risk factors and factor models – Portfolio revision – Mutual funds – Types and strategies – Taxation and regulation.

Portfolio Performance and Analytics

Portfolio evaluation methods: Sharpe ratio, Treynor ratio, Jensen’s alpha (Problem) – Risk-adjusted returns – Benchmarking and attribution analysis – Modern trends in portfolio analytics – ESG investing – Passive vs Active management – Robo-advisors and AI in portfolio decisions.

References:

1. Donald E. Fischer & Ronald J. Jordan, Security Analysis and Portfolio Management, PHI Learning, 8th Ed., 2011
2. Prasanna Chandra, Investment Analysis and Portfolio Management, McGraw Hill, 6th Ed., 2021

3. Frank K. Reilly & Keith C. Brown (with Sanford J. Leeds), Investment Analysis and Portfolio Management, Cengage Learning, 12th Ed., published February 29, 2024
4. S. Kevin [surname unknown – original listing incomplete], Security Analysis and Portfolio Management, PHI Learning, 2015
5. V. A. Avadhan, Securities Analysis and Portfolio Management, Himalaya Publishing House, 2013
6. Zvi Bodie, Alex Kane, Alan J. Marcus (with Mohanty for some editions), Investments, McGraw Hill, 13th Ed., 2023
7. V. K. Bhalla, Investment Management, S. Chand Publishing, 2018

E-Resources:

- ✧ Investopedia: Security Analysis
- ✧ NSE India: Investor Education
- ✧ MoneyControl: Market Tools
- ✧ Bloomberg Markets
- ✧ Morningstar Portfolio Tools
- ✧ [YouTube: Aswath Damodaran's Valuation Series (NYU Stern)]
- ✧ SEBI Resources for Investors

Course Outcomes

On successful completion of the course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of the investment environment, fundamental and technical analysis, portfolio construction, asset pricing models, and portfolio performance evaluation and modern analytics.
- **CO2:** Interpret and relate investment concepts, economic and industry analysis, technical indicators, modern portfolio theory, asset pricing models, and portfolio performance metrics to understand the dynamics of financial markets.
- **CO3:** Apply fundamental and technical analysis tools, Markowitz and single-index models, and asset pricing models like CAPM and APT to make informed investment and portfolio construction decisions.
- **CO4:** Analyze financial statements, market indicators, portfolio diversification strategies, and risk-adjusted returns to evaluate investment alternatives and portfolio performance.
- **CO5:** Evaluate various investment strategies, portfolio construction models, and performance evaluation metrics to make optimal decisions and manage a portfolio in a dynamic market.
- **CO6:** Develop a comprehensive investment and portfolio management strategy by integrating knowledge of security analysis, portfolio theories, and modern analytical tools to achieve investment objectives and manage risk.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%

Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	2	3	3	2	2	2	3
CO4	3	3	3	3	2	3	3
CO5	3	3	2	2	3	3	3
CO6	3	2	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25002 **Financial Markets** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide learners with a comprehensive understanding of the structure, components, and functioning of Indian financial markets. It emphasizes the mechanisms of capital and money markets, trading procedures, regulations, and the role of financial intermediaries. Students will develop a sound knowledge of instruments traded in equity, debt, and derivative markets, along with exposure to mutual funds, venture capital, and private equity. The course also introduces the evolving landscape of forex markets and financial market analytics in the global context.

Overview of Financial Markets in India

Structure of Indian financial system – Classification of financial markets: capital market, money market, forex, derivatives – Participants in financial markets – Regulatory environment: Role of RBI, SEBI, CCIL – Government policy towards financial markets – Types of financial instruments and innovation trends.

Primary Capital Market

Structure and functioning of primary markets – IPO process – Pricing of issues – Book building method – Types of securities and issues – Role of intermediaries: merchant bankers, commercial banks, rating agencies – SEBI guidelines – Regulation of public issues and investor protection measures.

Secondary Market and Trading Mechanism

Stock exchanges in India: NSE, BSE, OTCEI, ISE – Listing process – Depositories and settlement system – Trading process and risk management – Pricing mechanism – Market indices and their computation – Players: FIIs, mutual funds, derivatives market, venture capital, investment bankers – Regulatory role of SEBI.

Global Financial Environment & Exchange Markets

Evolution of international finance – Balance of Payments – Exchange rate regimes – Global monetary systems – Parity conditions: PPP, IRP, FRP – Global financial institutions (IMF, BIS, World Bank) – Role of central banks in international flows.

International Financial Instruments & Strategies

Global capital markets: International bonds, Eurobonds, FRNs – ADRs & GDRs – FX market structure: spot, forward, swaps – Currency exposure and hedging – International borrowing and lending strategies – Interest rate instruments.

International Risk & Market Innovations

Country and political risk analysis – Creditworthiness evaluation – Financial risk modeling – Futures/options for international risk management – Fintech and algorithmic trading – Sustainable finance – ESG investments – Regulatory trends in global finance.

References:

1. Christopher Viney & Peter Phillips, Financial Institutions, Instruments and Markets, McGraw Hill, 9th Ed., 2022
2. Bharati V. Pathak, Indian Financial System: Markets, Institutions and Services, Pearson, 6th Ed., 2023
3. Anthony Saunders & Marcia Cornett (with Otgo Erhemjamts), Financial Markets and Institutions, McGraw Hill, 8th Ed., 2022
4. L. M. Bhole, Financial Institutions and Markets, McGraw Hill – no newer edition located beyond the 6th Ed., 2017
5. Frank J. Fabozzi & Franco Modigliani, Capital Markets: Institutions, Instruments and Risk Management, PHI, 5th Ed., 2024
6. Zvi Bodie, Alex Kane & Alan J. Marcus, Investments, McGraw Hill – current now as 13th Ed., published 2023
7. S. S. Somashekaraiah, Indian Financial System and Markets, Horizon Publishers, 2021

E-Resources:

- ✧ SEBI – Investor Education
- ✧ RBI Publications
- ✧ NSE India Learning
- ✧ BSE India Investor Zone
- ✧ Investopedia: Markets
- ✧ Moneycontrol

✧ World Bank Financial Market Reports

Course Outcomes

On completion of this course, the students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the Indian financial system, primary and secondary markets, global financial environments, international financial instruments, and emerging trends like Fintech and ESG investments.
- **CO2:** Interpret and relate the roles of financial market participants, regulatory bodies (RBI, SEBI), trading mechanisms, global monetary systems, and international risk factors to understand the dynamics of financial markets.
- **CO3:** Apply knowledge of primary and secondary market mechanisms, trading procedures, international financial instruments, and risk management strategies to make informed decisions.
- **CO4:** Analyze the structure and functioning of Indian and global financial markets, the role of intermediaries, trading mechanisms, and international financial instruments to assess market efficiency and risk.
- **CO5:** Evaluate different financial instruments, market strategies, and regulatory frameworks to make optimal investment, hedging, and financing decisions in a global context.
- **CO6:** Develop a strategic perspective on financial markets by integrating knowledge of local and international market structures, trading mechanisms, and emerging innovations to manage financial risks and opportunities.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	3	2	3	3
CO4	3	2	3	2	3	3	3
CO5	3	3	2	2	2	3	3
CO6:	2	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25003	Banking and Financial Services	L T P C
		3 0 0 3

Course Objectives:

This course is designed to provide students with a comprehensive understanding of the Indian banking system, regulatory frameworks, and the functioning of fund-based and fee-based financial services. It explores banking risk management, fund mobilization, loan pricing, and modern banking technology such as e-banking and fintech applications. The course further enables learners to evaluate the performance of banks and understand the scope and functioning of services like insurance, leasing, factoring, merchant banking, and venture capital, emphasizing compliance with current Indian and global regulatory standards.

Indian Banking System and Regulatory Environment

Overview of Indian banking structure – Public, Private, Cooperative banks – Key financial and legal regulations: RBI Act 1934/2006, BR Act 1949, NI Act 1881/2002 – CRR, SLR, NPA norms – Financial statements of banks – Performance evaluation using CAMEL framework – Basel norms overview.

Bank Funds Management and Risk Analysis

Sources of funds: deposit and non-deposit – Designing and pricing deposit products – Loan management and credit appraisal – ALM practices – Investment strategies – Financial distress and prediction models – Risk management: interest rate, credit, forex, operational and market risks – Current issues in NPA management – Bank mergers and market entry.

Technology in Banking and E-Banking

Indian payment systems: NEFT, RTGS, IMPS – Plastic money, e-wallets, UPI – e-banking services and platforms – Cybersecurity risks in e-banking – forecasting of cash demand at ATM's - IT Act 2000 and its application – RBI's Financial Sector Technology Vision – ATM cash forecasting – Role of fintech in modern banking.

Asset-Based Financial Services

Role and need for financial services – NBFCs: types and RBI regulation – Leasing and hire purchase: evaluation and features – Credit rating – Mutual funds: structure, regulation, NAV calculation – Underwriting services – Case studies in leasing and mutual funds.

Insurance and Fee-Based Services

Overview of insurance industry – Insurance Act 1938 – IRDA regulation and guidelines – Insurance products: life, health, general – Venture capital financing – Bill discounting and factoring – Merchant banking – Role of SEBI in regulating financial services.

Emerging Trends and Strategic Issues

Digital banking and blockchain applications – Green banking – Financial inclusion and rural banking initiatives – ESG compliance in financial services – Regulatory challenges in neobanks – Data analytics in financial service delivery – Case studies on strategic alliances and bank transformation.

References:

1. Padmalatha Suresh & Justin Paul, Management of Banking and Financial Services, Pearson, 4th Ed., 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. Meera Sharma, Management of Financial Institutions, PHI , 2010
4. M. Y. Khan, Financial Services, McGraw Hill, 11th Ed., 2023
5. Gurusamy S., Banking Theory, Law and Practice, Tata McGraw Hill, 6th Ed., 2023
6. Indian Institute of Banking and Finance (IIBF) – Principles and Practices of Banking, 2023 Edition, Macmillan/IIBF, released January 2023

E-Resources:

- ✧ Reserve Bank of India – RBI Publications
- ✧ SEBI Official Site
- ✧ IRDAI – Insurance Regulatory and Development Authority of India
- ✧ Banking Technology Reports – NITI Aayog/World Bank
- ✧ NSE India Learning Academy
- ✧ Indian Banks' Association – Knowledge Repository

Course Outcomes

After successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the Indian banking system, bank fund management and risk analysis, banking technology, asset-based financial services, insurance and fee-based services, and emerging trends in the financial sector.
- **CO2:** Interpret and relate the regulatory frameworks, fund management practices, e-banking platforms, financial services like leasing and mutual funds, insurance principles, and emerging trends like Fintech to the overall financial services industry.
- **CO3:** Apply knowledge of banking regulations, fund management strategies, e-banking platforms, and financial services to perform credit appraisals, manage risk, and deliver financial solutions.
- **CO4:** Analyze the structure of the Indian banking system, bank financial statements, technology in banking, asset-based and fee-based financial services, and emerging trends to evaluate the performance and strategic direction of financial institutions.
- **CO5:** Evaluate various banking and financial services, including fund management, e-banking, NBFCs, and insurance, to assess their effectiveness and compliance with regulatory standards.
- **CO6:** Develop a strategic perspective on banking and financial services by integrating knowledge of regulatory frameworks, risk management, technology, and emerging trends to foster financial innovation and inclusion.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	2	3	3	2	3	3	3
CO4	3	3	2	2	2	3	3
CO5	3	3	3	3	2	3	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25004 **Financial Derivatives** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide students with a foundational and applied understanding of financial derivatives, including forwards, futures, options, and swaps. It equips learners with the necessary skills to hedge risk, analyze pricing models, and implement trading strategies. Students will explore the operational mechanisms, valuation techniques, and market structure of derivatives, with a focus on instruments traded in Indian and global markets. The course integrates both theoretical and practical aspects of risk management using derivative products, aligning with current trends and regulatory developments.

Introduction to Derivatives and Risk Management

Definition and scope of derivatives – Classification: Forward Contracts - forwards, futures, options, swaps – Cash vs futures market – OTC vs exchange-traded contracts – Settlement types – Types of traders – Benefits and risks in derivatives – Hedging, speculation, arbitrage strategies.

Futures Contracts and Trading Mechanisms

Features and specifications of futures contracts – Margining system – Marking to market – Delivery mechanism – Hedging with futures – Futures on securities, stock indices, commodities, and currencies – Spot, forward, and future price relationship (Problem) – Basis risk.

Options Markets and Valuation

Call and Put options – American and European styles – Intrinsic and time value (Problem) – Options on stocks, indices, currencies, and futures – Pay-off profiles (Problem) – Option pricing: Binomial Model, Black-Scholes Model (Problem) – Option Greeks – Differences between futures and options.

Swaps and Structured Derivatives

Overview of swaps – Interest rate swaps – Currency swaps – Role of intermediaries and swap dealers – Warehousing concept – Valuation of swaps (Problem) – Bonds, FRNs – Credit risk and default risk – Emerging structured products and hybrid derivatives.

Indian Derivatives Markets and Regulatory Framework

Evolution of derivatives in India – Regulatory framework: SEBI, RBI – Derivatives exchanges in India – Stock options and index futures in NSE/BSE – Contract terminology and specifications – Commodity and interest rate derivatives – Clearing and settlement procedures.

Strategic Derivatives Applications and Analytics

Derivatives as risk management tools – Portfolio hedging – Trading and arbitrage strategies – Delta and gamma hedging – Volatility trading – Behavioral and quantitative finance perspectives – Derivatives analytics using Excel/Python – Case studies.

References:

1. John C. Hull, Options, Futures and Other Derivatives, Pearson, 11th Ed., 2021
2. S. L. Gupta, Financial Derivatives: Theory, Concepts and Practice, 2012
3. Keith Redhead, Financial Derivatives: An Introduction, PHI Learning, 2011
4. Rene M. Stulz, Risk Management and Derivatives, Cengage, 3rd Ed., 2019
5. M. Ranganatham & R. Madhumathi, Derivatives and Risk Management, Pearson, 2nd Ed., 2022
6. David A. Dubofsky & Thomas W. Miller Jr., Options and Financial Futures: Valuation and Uses, McGraw-Hill, 6th Ed., 2023
7. J. R. Varma, Derivatives and Risk Management, Tata McGraw-Hill, 2nd Ed., 2020
8. NSE / BSE official contract specifications and circulars — continually updated; the latest contract specs by Thomson Reuters / Indian exchanges are current as of June 2025

E-Resources:

- ✧ NSE Derivatives Market
- ✧ SEBI Derivatives Guidelines
- ✧ Investopedia: Derivatives
- ✧ BSE India – Derivatives Section
- ✧ CME Group – Global Derivatives Data

✧ [YouTube: Options Trading by Aswath Damodaran, CFA Institute Series]

✧ [MOOCs: Derivatives Markets by IIMB on SWAYAM or NPTEL]

Course Outcomes

Upon completion of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of derivative types, futures and options contracts, swap mechanisms, the regulatory environment of Indian derivatives markets, and strategic applications for risk management.
- **CO2:** Interpret and relate the concepts of risk management, futures trading, option valuation, swap mechanisms, and market regulations to understand the dynamics and functioning of derivative markets.
- **CO3:** Apply knowledge of derivative instruments, futures contracts, options pricing models (e.g., Black-Scholes), and swap valuation techniques to implement hedging and trading strategies.
- **CO4:** Analyze futures, options, and swaps contracts, as well as the Indian regulatory framework, to understand market behavior, assess risk-return trade-offs, and design effective derivative strategies.
- **CO5:** Evaluate different derivative instruments, pricing models, and trading strategies to make informed decisions about risk management, speculation, and arbitrage.
- **CO6:** Develop a comprehensive derivatives strategy by integrating knowledge of futures, options, swaps, and market regulations to manage risk and perform advanced analytics in a dynamic financial environment.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	3	2	3	3
CO4	3	2	2	2	3	2	3
CO5	3	2	2	2	3	2	2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25005	Fintech and Sustainability	L T P C 3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of how financial technology (fintech) is transforming the financial services landscape with an emphasis on sustainable development. It explores emerging technologies such as blockchain, artificial intelligence, and IoT and their application in sustainable finance. Students will learn about ESG frameworks, green fintech innovations, and regulatory technologies that support ethical finance. The course integrates case studies and practical applications to develop strategic thinking in deploying fintech solutions for environmental, social, and governance goals.

Foundations of Fintech and Financial Innovation

Fintech: Definition, history, and evolution – Key enablers and trends – Fintech ecosystem: stakeholders, startups, regulators – Overview of financial innovation – Traditional vs digital finance – Role of digital identity and APIs in financial services.

Technology Pillars of Fintech

Core technologies: Blockchain, Artificial Intelligence (AI), Machine Learning (ML), Big Data Analytics, Internet of Things (IoT) – Smart contracts – Use of APIs and Open Banking – Cybersecurity and data privacy in fintech – Cloud computing in financial applications.

Principles of Sustainable Finance and ESG

Sustainable finance: definitions, need, and frameworks – ESG criteria and integration in investment decisions – Impact investing and green finance – Regulatory push toward ESG disclosure – SDGs and role of finance in sustainable development.

Fintech Solutions for Sustainability

Green fintech: carbon footprint tracking apps, sustainable investing platforms – Green bonds and blockchain-based ESG instruments – Financial inclusion through digital banking – RegTech for ESG compliance – AI in sustainability analytics.

Industry Use Cases and Market Applications

Case studies of fintech-led sustainable initiatives: India Stack, Stellar, Ant Forest – Role of fintech in inclusive finance and SME sustainability – Climate fintech startups – Tokenized carbon markets – Fintech for disaster risk finance and resilience.

Challenges, Trends, and Strategic Deployment

Global trends in sustainable fintech – Challenges: regulation, greenwashing, technological barriers – Policy frameworks and ethical implications – Role of central banks and fintech sandboxes – Strategies to integrate fintech in sustainable development goals.

References:

1. Douglas W. Arner, Janos Barberis & Ross P. Buckley, The Evolution of Fintech, University of Hong Kong Faculty of Law, 2023.

2. Patrick Schueffel, Taming the Beast: A Scientific Definition of Fintech, Journal of Innovation Management, 2023.
3. Eugenio Campiglio et al., Climate Change Challenges for Central Banks and Regulators, Nature Climate Change, 2024.
4. Olaf Weber & Blair Feltmate, Sustainable Banking: Managing Impact of Financial Institutions, University of Toronto Press, 2024.
5. Simon Zadek & Nick Robins, Fintech and Sustainable Development, UNEP Inquiry, 2024.
6. Pranay Gupta & T. Mandy Tham, Fintech: The New DNA of Financial Services, De|G Press, 2024.
7. Thomas Puschmann, Fintech: Drivers and Market Developments, Financial Internet Quarterly, 2024.

E-Resources:

- ✧ World Bank – Green Finance & Fintech
- ✧ UNEP Finance Initiative
- ✧ NITI Aayog Fintech Report
- ✧ Global Sustainable Investment Alliance
- ✧ MAS Singapore – Green Fintech Programs
- ✧ OECD ESG & Fintech Reports
- ✧ [YouTube: Fintech for Sustainability by IMF, WEF]

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of fintech foundations, core technologies, sustainable finance principles, fintech solutions for sustainability, industry use cases, and the strategic challenges and trends in the sector.
- **CO2:** Interpret and relate the foundational concepts of fintech, core technologies (e.g., blockchain and AI), ESG principles, sustainable fintech solutions, and strategic trends to understand their integrated role in financial innovation.
- **CO3:** Apply fintech concepts and technologies to sustainable finance frameworks and industry use cases to design innovative financial models that address ethical and strategic challenges.
- **CO4:** Analyze the fintech ecosystem, core technologies, sustainable finance principles, and their real-world applications to evaluate the strategic opportunities and challenges of integrating sustainable fintech solutions.
- **CO5:** Evaluate the effectiveness of fintech technologies, sustainable finance frameworks, and industry applications to build robust, ethical, and scalable financial models that address current and future strategic goals.
- **CO6:** Develop a comprehensive strategy for deploying sustainable fintech solutions by integrating an understanding of the fintech ecosystem, core technologies, ESG frameworks, and market applications, while navigating regulatory challenges and ethical considerations.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	1	2	3	2
CO2	3	3	3	2	3	3	3
CO3	2	3	3	2	3	3	3
CO4	3	3	3	3	2	3	3
CO5	3	2	3	3	2	3	3
CO6	3	2	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25006 **Behavioral Finance** **L T P C**
3 0 0 3

Course Objectives:

This course enables students to understand the psychological factors influencing financial decision-making and the implications for markets and corporate behavior. It integrates concepts from behavioral economics, cognitive psychology, and traditional finance to identify irrational investor behavior and limitations to market efficiency. Students will explore how biases, heuristics, emotional processes, and social dynamics influence individual and institutional financial decisions. It aims to equip students with the ability to critically analyze deviations from standard financial models and apply behavioral insights to real-world investing and management.

Foundations of Behavioral Finance

Introduction to behavioral finance – Role of security prices – Efficient Market Hypothesis (EMH) and its limitations – EHM Failing - EMH in supply-demand framework – Investment decisions under uncertainty Equlibrium expected return model – Expected utility theory – Introduction to neoclassical economics – Return predictability and market anomalies - Limitations to Arbitrage.

Behavioral Theories and Decision Frameworks

Game theory and behavioral paradoxes: Nash Equilibrium, Keynesian Beauty Contest, Prisoner's Dilemma – Monty Hall, St. Petersburg, Allais and Ellsberg paradoxes – Prospect Theory –

Behavioral Portfolio Theory – SP/A theory – Historical evolution of rational thought - pasacl – Fermat to Friedman - savage.

Cognitive Biases and Heuristics in Finance

Information screening bias – Heuristics and decision shortcuts – Investor biases: overconfidence, anchoring, representativeness – Bayesian decision-making – Cognitive and emotional biases and neuro science – Forecasting errors – Group behavior and herding – Behavioral investing styles.

Role of Arbitrageurs and Market Behavior

Arbitrage: definitions and classifications – Long-short strategies – Risk and time horizon – Noise-trader risk – Transaction and short-selling costs – Fundamental vs. technical arbitrage – Destabilizing informed trading – Market anomalies and arbitrage limitations.

Behavioral Aspects of Managerial Finance

Firm behavior under behavioral constraints – Market timing and catering theory – Managerial biases – Institutional constraints and agency conflicts – Relative performance concerns – Behavioral elements in capital structure and dividend policy decisions.

Behavioral Finance in Practice and Future Outlook

Real-world examples of investor irrationality – Behavioral finance and pricing bubbles – Asset mispricing and correction – Behavioral finance and regulatory frameworks – Recent research trends in behavioral finance – Application in fintech, robo-advisory, and ESG investing.

References:

1. Andrei Shleifer, Inefficient Markets: An Introduction to Behavioral Finance, Oxford University Press, 2024
2. Daniel Kahneman, Paul Slovic & Amos Tversky, Judgment under Uncertainty: Heuristics and Biases, Cambridge University Press, 2024
3. Meir Statman, Behavioral Finance: The Second Generation, CFA Institute Research Foundation, 2024
4. James Montier, The Little Book of Behavioral Investing: How Not to Be Your Own Worst Enemy, Wiley, 2024
5. Michael M. Pompian, Behavioral Finance and Wealth Management: How to Build Investment Strategies That Account for Investor Biases, Wiley, 2024
6. Richard H. Thaler, Misbehaving: The Making of Behavioral Economics, W.W. Norton & Company, 2024

E-Resources:

- ✧ Behavioral Finance at CFA Institute
- ✧ SSRN – Behavioral Economics Papers
- ✧ Nobel Prize Lectures by Daniel Kahneman and Richard Thaler
- ✧ Harvard Business Review on Behavioral Strategy
- ✧ YouTube: Behavioral Finance Lectures by Yale/Open Yale Courses (Prof. Robert Shiller)
- ✧ Google Scholar Behavioral Finance

Course Outcomes

By the end of the course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of behavioral finance, key decision-making theories, cognitive and emotional biases, the role of arbitrage, managerial behavioral aspects, and real-world applications in finance.
- **CO2:** Interpret and relate the Efficient Market Hypothesis, behavioral paradoxes, cognitive biases, arbitrage limitations, and managerial behavioral patterns to understand deviations from traditional financial models.
- **CO3:** Apply behavioral theories like Prospect Theory, identify cognitive biases, and utilize arbitrage strategies to analyze and predict financial market behavior and individual investor decisions.
- **CO4:** Analyze market anomalies, the limitations of arbitrage, and the behavioral aspects of managerial finance to critically assess financial decisions and market efficiency.
- **CO5:** Evaluate the impact of cognitive biases, behavioral paradoxes, and managerial behavioral patterns on financial decisions and market outcomes to propose strategies for mitigating their negative effects.
- **CO6:** Develop practical financial strategies by integrating an understanding of behavioral finance concepts, managerial biases, and market dynamics to make more rational investment and corporate finance decisions.

Internal Assessment Scheme (Total: 100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	3	3	2
CO2	3	3	3	2	3	3	3
CO3	2	3	3	2	3	2	3
CO4	3	2	3	2	2	3	2
CO5	3	2	2	3	2	3	3
CO6:	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25007	Retail Marketing	L T P C
		3 0 0 3

Course Objectives:

This course aims to equip students with a comprehensive understanding of the retail marketing landscape, both globally and in the Indian context. It provides insights into retail formats, consumer behavior, store operations, and emerging technologies transforming the retail sector. Students will learn key retail decision areas such as store location, merchandising, pricing, promotions, and shopper profiling. The course prepares students for careers in retail and e-commerce by building practical knowledge and analytical skills required to handle contemporary retailing challenges.

Global and Indian Retailing Trends

Overview of global retailing – Emerging global retail formats – Challenges and opportunities - Retail trends in India – Growth drivers of Indian retail – Socio-economic and technological influences – Government of India policy implications on retailing – Foreign direct investment (FDI) in retail.

Retail Formats and Business Models

Classification of retail formats – Organized vs. unorganized retail – Specialty stores, supermarkets, hypermarkets, departmental stores, malls – Role of MNCs in Indian retail – Franchising and private labels – Online and omnichannel formats – Retail entrepreneurship.

Strategic Retail Decisions

Retail location analysis – Store layout and atmospherics – Positioning and image building – Retail service quality management – Pricing strategies in retail – Retail supply chain management – Category management and merchandise planning – Vendor selection and buying.

Retail Operations and Store Management

Visual merchandising – Space planning and allocation – Inventory management – Retail accounting and audits – Technology in retail operations – Retail advertising and promotions – Role of MIS and analytics – Digital retailing and automation – Self-checkout, RFID, AR/VR.

Retail Shopper Behavior and Customer Insights

Shopper profile and segmentation – Shopping behavior models – Factors influencing retail shopping – Decision-making process – Complaints and loyalty management – Customer satisfaction and CRM – Personalization and AI in shopper analytics - Retail sales force management - Challenges in Retailing in India

Contemporary Issues and Innovations in Retail

E-commerce evolution and mobile commerce – Sustainable retailing – Ethical retail practices – Challenges in Indian retail – Retail innovations: drones, smart shelves, cashier-less stores – Future of retail: experiential retailing, metaverse shopping.

References:

1. Michael Levy, Barton Weitz & Ajay Pandit, Retail Management, Tata McGraw Hill, 10th Ed., 2024
2. Chetan Bajaj, Rajnish Tewari & Nidhi Srivastava, Retail Management, Oxford University Press, 4th Ed., 2024
3. Swapna Pradhan, Retailing Management: Text and Cases, Tata McGraw Hill, 7th Ed., 2024
4. Ogden, Integrated Retail Management, Biztantra, 4th Ed., 2024
5. Patrick Dunne & Robert Lusch, Retailing, Thomson Learning, 5th Ed., 2024
6. Ramkrishnan & Y.R. Srinivasan, Indian Retailing: Text & Cases, Oxford University Press, 4th Ed., 2024
7. Dr. Jaspreet Kaur, Customer Relationship Management, Kogent Learning Solutions, 2nd Ed., 2024
8. Barry R. Berman & Joel R. Evans, Retail Management: A Strategic Approach, Pearson Education, 14th Ed., 2024

E-Resources:

- ✧ NPTEL – Retail Management
- ✧ Retailers Association of India (RAI)
- ✧ Harvard Business Review – Retail Insights
- ✧ RetailWire
- ✧ Shopify Blog – Retail Trends
- ✧ Statista – Global Retail Data

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of global and Indian retailing trends, various retail formats, strategic retail decisions, store operations, shopper behavior, and contemporary innovations and sustainability in retail.
- **CO2:** Interpret and relate retail trends, business models, strategic decisions, operational processes, consumer behavior, and emerging technologies to understand the retail marketing landscape.
- **CO3:** Apply retail marketing principles, strategic decision-making tools, operational management techniques, and shopper insights to develop effective retail strategies and manage store operations.
- **CO4:** Analyze the retail environment, different retail formats, strategic decisions, operational processes, and shopper behavior to evaluate a retailer's performance and identify areas for improvement.

- **CO5:** Evaluate various retail formats, strategic decisions, and operational practices to assess their effectiveness in achieving a competitive advantage and meeting consumer needs.
- **CO6:** Develop a comprehensive retail strategy by integrating knowledge of global and Indian trends, retail formats, strategic decisions, shopper behavior, and innovations to create a sustainable and successful retail business.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	2	3	2
CO2	3	3	2	2	2	3	3
CO3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3
CO5	3	3	3	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25008 Consumer Behaviour and Neural Marketing L T P C
3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of how and why consumers make purchasing decisions. It examines the psychological, sociological, and cultural influences that shape consumer behavior. The course introduces both traditional and contemporary models of consumer decision-making while addressing changes in consumer patterns influenced by technology, economic shifts, and generational trends. Students will gain the ability to apply insights from consumer behavior to marketing strategy, segmentation, targeting, and positioning.

Foundations of Consumer Behaviour

Understanding consumer behaviour – Concepts of consumption and consumer orientation – Evolution and relevance of consumer behaviour – Approaches to research: Interpretive approach – Quantitative approach – Technology, Demographics, and Economic factors influencing consumer behaviour

Internal Drivers of Behaviour

Motivation and consumer needs – Perception and information processing – Learning theories and consumer experiences – Attitudes, beliefs, and cognitive responses – Personality traits – Consumer self-concept and lifestyle influence

External Influences on Consumer Behaviour

Social class and culture – Cross-cultural consumer insights – Family life cycle and household decision-making – Reference groups – Opinion leadership – Role of communication and social media in shaping behavior

Consumer Decision-Making Models

Traditional vs. Contemporary consumer behaviour models – Individual vs. industrial buying behaviour – Consumer decision-making process – Problem recognition to post-purchase – Innovation adoption and diffusion process

Introduction to Neuromarketing

Consumer neuroscience: Concept and applications – Role of brain mapping in marketing – Neuromarketing vs. traditional marketing research – Ethical issues and limitations – Conscious vs. unconscious processes in decision-making

Tools and Techniques in Neuromarketing

Attention and sensory mechanisms – Eye tracking and biometric tools – Emotional triggers and memory encoding – Role of sensory branding – Case studies in neuromarketing campaigns and their business impact

References:

1. Leon G. Schiffman, S. Ramesh Kumar & Joseph Wisenblit, Consumer Behavior, Pearson Education, 12th Ed., 2024
2. Ramanuj Majumdar, Consumer Behaviour – Insights from Indian Market, PHI Learning, 2nd Ed., 2024
3. Barry J. Babin, Eric G. Harris & Ashutosh Mohan, Consumer Behaviour – A South Asian Perspective, Cengage Learning, 2nd Ed., 2024
4. Michael R. Solomon & Cristel Antonia Russell, Consumer Behavior: Buying, Having, and Being, Pearson Education, 14th Ed., 2024
5. David L. Loudon & Albert J. Della Bitta, Consumer Behavior, McGraw Hill, 5th Ed., 2024
6. Paul E. Peter & Jerry C. Olson, Consumer Behavior and Marketing Strategy, Tata McGraw Hill, 8th Ed., 2024
7. Suja Nair, Consumer Behaviour in Indian Perspective, Himalaya Publishing House, 2nd Ed., 2024

E-Resources:

- ✧ NPTEL – Consumer Behaviour
- ✧ Harvard Business Review – Consumer Insights
- ✧ Statista – Consumer Market Outlook
- ✧ Google Think with Google – Shopper Behavior Reports
- ✧ McKinsey & Company – Consumer Behavior Trends

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the foundations of consumer behavior, internal and external drivers of behavior, consumer decision-making models, and the principles, tools, and techniques of neuromarketing.
- **CO2:** Interpret and relate the various theories of consumer behavior, internal psychological factors, external social and cultural influences, traditional and contemporary decision-making models, and the core concepts of neuromarketing to analyze consumer actions.
- **CO3:** Apply an understanding of consumer motivation, cultural influences, and decision-making models to marketing strategy, and utilize neuromarketing tools to gain deeper insights into consumer responses.
- **CO4:** Analyze the interplay of internal and external factors, consumer decision-making processes, and the ethical implications of neuromarketing to develop effective and responsible marketing strategies.
- **CO5:** Evaluate the effectiveness of various consumer behavior models and neuromarketing techniques to optimize marketing campaigns, enhance customer experiences, and improve business outcomes.
- **CO6:** Develop a comprehensive marketing strategy by integrating knowledge of consumer behavior fundamentals, decision-making models, and the advanced tools of neuromarketing to create a targeted and impactful campaign.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	3	2
CO2	3	3	3	2	2	3	2
CO3	3	3	3	2	2	3	2
CO4	3	3	3	3	3	3	3
CO5	3	3	2	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25009	Services Marketing	LT P C 3 0 0 3

Course Objectives:

This course aims to equip students with an in-depth understanding of the distinct nature of services and the strategies involved in effectively managing and marketing them. It emphasizes the foundations of services marketing, consumer expectations, service delivery, and the measurement of service quality. It also prepares students to manage service marketing strategies across various industries such as health, hospitality, finance, and digital services. The course will help learners develop capabilities in service innovation, design, delivery, and customer experience management.

Foundations of Services Marketing

Definition and unique characteristics of services – Nature and scope of service - Service Economy - Evolution and scope of service sector – Global and Indian service economy trends – Distinction between products and services – Challenges in services marketing – Service classification and service economy growth drivers.

Service Marketing Environment and Strategies

Service marketing opportunities – Classification of services - Segmentation, targeting, and positioning in services – Expanded marketing mix (7Ps) for services – Environmental analysis – Role of technology in service delivery – Emerging trends and global shifts in services marketing.

Service Design and Quality Management

Service design and blueprinting – Service lifecycle management – GAP model – Measuring service quality – SERVQUAL model – Role of customer feedback – New service development - Quality Function Deployment (QFD) in services.

Service Delivery and Communication

Positioning of services - Designing service delivery systems – Pricing strategies and methods – Service marketing triangle – Demand and supply management – Integrated service communication strategies – Use of digital media and AI in service promotion.

Industry-specific Service Marketing Strategies

Strategic approaches for health, tourism, hospitality, education, logistics, entertainment, online services, and public utilities – CRM and personalization in service industries – Use of analytics in enhancing service offerings.

Managing Service Experience and Customer Loyalty

Understanding service encounters – Customer satisfaction, complaints handling, and recovery strategies – Customer experience design – Building customer loyalty and advocacy – Future of services marketing.

References:

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

E-Resources:

- ✧ www.mindtools.com
- ✧ www.servicefutures.com
- ✧ www.marketingprofs.com
- ✧ Coursera: Services Marketing Essentials
- ✧ Harvard Business Review on Service Strategy

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the foundations of services marketing, strategic approaches, service design and quality, delivery and communication, industry-specific strategies, and customer experience management.
- **CO2:** Interpret and relate the unique characteristics of services, the expanded marketing mix, service quality models, delivery systems, industry-specific contexts, and customer loyalty drivers to understand the service marketing environment.
- **CO3:** Apply service design tools like blueprinting, segmentation and positioning principles, integrated communication strategies, and customer relationship management (CRM) practices to real-world service marketing scenarios.
- **CO4:** Analyze the service marketing environment, the GAP model of service quality, pricing strategies, demand and supply management, and customer feedback to diagnose issues and identify opportunities for improvement.
- **CO5:** Evaluate service marketing strategies, service quality metrics, customer experience designs, and loyalty-building programs to assess their effectiveness and performance across various service industries.
- **CO6:** Develop a comprehensive service marketing plan by integrating knowledge of service characteristics, the 7Ps, quality management, communication strategies, and customer loyalty programs to address industry-specific challenges.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	2	3	3	2	3
CO4	3	3	2	3	2	3	3
CO5	3	3	3	2	2	3	3
CO6	2	2	3	3	3	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25010 **Sales and Distribution Management** **LT P C**
3 0 0 3

Course Objectives:

This course aims to equip students with a comprehensive understanding of both the sales and distribution dimensions of Business. It helps students explore the evolving role of personal selling and sales force management, evaluate sales forecasting and budgeting, and understand the importance of customer-centric selling. It further exposes learners to logistics, supply chain strategies, and the design of effective distribution channels, including online selling. The course integrates emerging trends and digital tools shaping sales and distribution decisions in modern organizations.

Fundamentals of Sales Management
Sales management – nature, scope and importance – Sales management positions – Theories and strategies in personal selling – Sales forecasting and budgeting decisions – Online selling: potential, merits, and demerits – Emerging digital platforms in sales.

Personal Selling and Sales Territories
Steps in the selling process – Relationship selling – Designing sales territories – Establishing sales quotas – Sales organization structures – Use of CRM systems in personal selling.

Managing the Sales Force

Sales force recruitment and selection – Training and development – Motivating the sales force – Compensation systems – Performance evaluation and control – Ethical issues in sales management.

Distribution Management and Channel Design

Introduction to distribution management – Need and scope - Types and levels of marketing channels – Retailing and wholesaling – Channel design and selection – Channel conflict and coordination – Trends in omni-channel marketing.

Logistics and Supply Chain Management

Scope and components of logistics – Inventory management of finished goods – Warehousing and material handling – Modes of transportation and role in supply chain – Technology in logistics: barcoding, RFID, IoT in tracking.

Integration of Sales, Channels and Technology

Sales and distribution alignment – Strategic use of IT in sales and distribution – E-commerce logistics – Last-mile delivery challenges – Case studies from Indian and global markets.

References:

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

E-Resources:

- ✧ NPTEL Online Course: Sales and Distribution Management
- ✧ Harvard Business Publishing Cases on Sales & Distribution
- ✧ Coursera: Sales Operations/Force Management Specialization
- ✧ HubSpot Academy – Free CRM and Sales Management Resources

Course Outcomes

At the end of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of the fundamentals of sales management, personal selling, sales force management, distribution channel design, logistics, and the integration of technology in sales and distribution.
- **CO2:** Interpret and relate the principles of sales management, personal selling techniques, sales force motivation, channel design, logistics components, and digital tools to understand the sales and distribution process.

- **CO3:** Apply sales forecasting and budgeting techniques, sales force management principles, channel design strategies, and logistics concepts to manage sales and distribution operations.
- **CO4:** Analyze sales performance, sales force compensation systems, channel conflicts, and supply chain logistics to evaluate the effectiveness of sales and distribution strategies.
- **CO5:** Evaluate various sales strategies, sales force management practices, channel designs, and logistics solutions to make informed decisions that optimize sales and distribution performance.
- **CO6:** Develop a comprehensive sales and distribution strategy by integrating knowledge of personal selling, sales force management, channel design, logistics, and technology to enhance organizational efficiency and customer service.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	2	3	3	2	3
CO4	3	3	2	3	2	3	3
CO5	3	3	3	2	2	3	3
CO6	2	2	3	3	3	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25011 **Product and Brand Management** **L T P C**
3 0 0 3

Course Objectives:

This course enables students to strategically integrate product and brand management concepts with overall corporate strategy. It provides a comprehensive understanding of new product development, lifecycle management, branding elements, and brand equity creation. The course explores brand positioning, portfolio management, global branding strategies, and brand value measurement using real-time industry practices and case studies. Emphasis is also placed on digital and experiential branding, advertising, and modern promotion tools relevant in today's highly competitive global markets.

Product Development and Lifecycle Management

New product development process – Idea generation to commercialization – Types of innovation – Product life cycle stages – Product plans - Product strategy alignment with corporate vision – Role of product managers – Strategic tools for lifecycle extension - Branding- Introduction to Brand Management -Brand Management Process - Brand Choice Decisions and Models.

Branding Fundamentals and Identity Formation

Foundations of branding – Concepts of brand, branding, and brand equity – Elements of branding – Brand identity and image – Brand positioning models – Brand personality and differentiation strategies – Success factors of brand management - Brand communication and storytelling - Valuation of Brands- Brand Valuation -Brand Tracking and Monitoring.

Strategic Brand Building and Management

Brand architecture – Brand extension strategies – Revitalizing declining brands – Brand portfolio management – Managing brands across categories and geographies – Indian and global branding practices – Cross-cultural branding dynamics.

Digital and Experiential Branding

Digital branding strategies – Social media and influencer marketing – Managing brand experience and overtime – Co-branding and strategic alliances – Internal branding and employee brand ambassadors – Branding scorecards and performance indicators.

Marketing Mix and Integrated Brand Communication

Factors and products of marketing mix - Brand pricing strategies – Product distribution systems – Retail and service branding – Brand promotion and advertising – Public relations and event branding – Industrial and international product branding – Integrating IMC (Integrated Marketing Communications).

Brand Valuation and Future Trends

Future brand priorities - Brand tracking and performance measurement – Financial valuation of brands – Emerging trends in brand management – Sustainable branding – Metaverse and AI-powered branding – Case studies on successful brand transformations.

References:

1. Keller, K. L., Parameswaran, A. M. G., & Jacob, I. Strategic Brand Management: Building, Measuring, and Managing Brand Equity, Pearson Education India, 5th Ed., 2020
2. Panda, T. K. Product and Brand Management, Oxford University Press — no newer edition since 2016; current: 2016
3. Mathur, U. C. Product and Brand Management, Excel Books, 2012
4. Kotler, P., Keller, K. L., & Jha, M. Marketing Management: A South Asian Perspective, Pearson — current as of 2023
5. Kapferer, J. N. The New Strategic Brand Management: Advanced Insights and Strategic Thinking, Kogan Page, 5th Ed., 2012

E-Resources:

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

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of new product development, brand identity formation, strategic brand building, digital and experiential branding, integrated marketing communications, and brand valuation.
- **CO2:** Interpret and relate new product development stages, brand elements, brand extension strategies, digital branding practices, the marketing mix, and brand valuation metrics to understand the brand management process.
- **CO3:** Apply new product development processes, brand positioning models, brand portfolio management strategies, and integrated marketing communication tools to create and manage strong brands.
- **CO4:** Analyze product life cycle stages, brand identity, global branding practices, digital branding campaigns, and brand performance metrics to evaluate brand health and strategic effectiveness.
- **CO5:** Evaluate various new product ideas, brand extension strategies, experiential branding initiatives, and brand valuation methods to make informed decisions for building and sustaining brand equity.
- **CO6:** Develop a comprehensive brand strategy by integrating knowledge of new product development, brand identity, digital marketing, and brand valuation to create a powerful and sustainable brand in a competitive market.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	3	2
CO2	3	3	2	2	2	3	2
CO3	2	2	3	3	2	2	3
CO4	3	2	3	2	3	3	2
CO5	3	2	3	2	2	3	2
CO6	3	3	2	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25012	Digital Marketing	LT P C 3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of digital marketing strategies, tools, and technologies relevant to the modern Business environment. It enables learners to design and implement data-driven marketing strategies across digital channels including SEO, SEM, social media, mobile, and email. Students will gain hands-on skills to manage digital marketing campaigns, track performance using analytics tools, and make informed decisions to optimize campaign ROI. The course also addresses digital transformation and emerging trends impacting consumer behavior and Business strategies.

Digital Marketing Fundamentals and Strategy

Online marketing ecosystem – Role of digital marketing in Business strategy – Key components of digital marketing – Creating a digital marketing plan – Website design and development – Content marketing strategies and storytelling – Personalization and engagement tactics.

Search Engine Optimization and Marketing

SEO strategy – Keyword planning and research – On-page optimization – Off-page optimization – Search engine ranking algorithms – PPC - SEM basics – Google Ads – Display advertising – Re-marketing strategies – Cost-per-click and bid strategies.

Email and Mobile Marketing

Email marketing types and automation – Lead nurturing and customer retention – Integration with social and mobile platforms – Measuring email campaign effectiveness – Coupons - Offers - Profiling - Targeting - Mobile marketing strategies – Location and context-based targeting – SMS, app-based campaigns, and mobile commerce.

Social Media and Influencer Marketing

Social media landscape – Channel-specific strategies (Facebook, Instagram, LinkedIn, YouTube, X/Twitter) – Content calendar and posting strategies – Building online communities – Influencer marketing – Buzz creation – Viral campaigns – Case studies of successful campaigns.

Analytics and Performance Measurement

Digital analytics frameworks – Google Analytics – KPIs and dashboards – Campaign tracking – Attribution modeling – Email, mobile, social, and web analytics – ROI measurement – A/B testing – Dynamic adjustments based on performance data.

Trends in Digital Transformation and Future Insights

Digital transformation in marketing – Marketing automation tools – AI and machine learning in digital marketing – Chatbots and voice search – Blockchain in digital advertising – Ethical issues in digital marketing – Emerging tools and platforms – Future-ready digital strategies.

References:

1. Puneet Singh Bhatia, Fundamentals of Digital Marketing, Pearson Education, 2024 Ed., updated from 2017
2. Vandana Ahuja, Digital Marketing, Oxford University Press, 2nd Ed., 2022
3. Philip Kotler et al., Marketing 4.0: Moving from Traditional to Digital, Wiley, 2nd Ed., 2023
4. Dave Chaffey & Fiona Ellis-Chadwick, Digital Marketing: Strategy, Implementation and Practice, Pearson Education, 7th Ed., 2024
5. Damian Ryan, Understanding Digital Marketing, Kogan Page, 5th Ed., 2023
6. Joe Pulizzi, Beginner's Guide to Digital Marketing, McGraw-Hill, 2nd Ed., 2022,
7. Donald I. Barker, Debra Zahay, Mary Lou Roberts, Janna Parker & Melissa Barker, Social Media Marketing: A Strategic Approach, Cengage Learning, 3rd Ed., 2023

E-Resources:

- ✧ https://www.google.com/analytics – Google Analytics for data tracking
- ✧ https://www.hubspot.com – CRM & Inbound Marketing platform
- ✧ https://moz.com – SEO resources and tools
- ✧ https://www.semrush.com – Digital marketing toolkit
- ✧ https://www.hootsuite.com – Social media marketing and management
- ✧ https://www.coursera.org – Online courses on digital marketing (offered by Google, Meta, Wharton)
- ✧ https://www.contentmarketinginstitute.com

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of digital marketing fundamentals, SEO/SEM, email and mobile marketing, social media strategies, digital analytics, and emerging trends in digital transformation.
- **CO2:** Interpret and relate the principles of digital marketing, search engine algorithms, mobile marketing tactics, social media engagement, and performance metrics to understand the online marketing ecosystem.
- **CO3:** Apply SEO and SEM techniques, email and mobile marketing automation, and social media content strategies to design and implement effective digital marketing campaigns.
- **CO4:** Analyze digital marketing performance across various channels, including websites, email, social media, and paid ads, using analytics tools and attribution models to optimize campaign ROI.
- **CO5:** Evaluate different digital marketing strategies, influencer campaigns, and emerging technologies like AI and blockchain to make informed decisions for brand building and digital transformation.

- **CO6:** Develop a comprehensive, data-driven digital marketing strategy by integrating knowledge of all digital channels and analytics to achieve specific business objectives and adapt to future trends.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	3	3	3
CO2	2	2	3	2	3	3	2
CO3	3	3	3	3	2	2	3
CO4	2	3	3	2	3	3	2
CO5	2	3	2	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25013 **Knowledge Management and Innovation** **L T P C**
3 0 0 3

Course Objectives:

This course provides an in-depth understanding of how knowledge is created, captured, shared, and applied to drive innovation in modern organizations. It explores strategic alignment between knowledge management and innovation, emphasizing the role of leadership, organizational learning, and technology in developing knowledge-centric enterprises. Learners will gain insights into KM frameworks, tools, metrics, and design thinking approaches to foster a knowledge-sharing culture and sustainable innovation. The course also introduces emerging technologies such as AI, social media, and data analytics in managing organizational knowledge assets.

Foundations of Knowledge and Innovation

Knowledge economy – From data to information to knowledge – Types of knowledge – Drivers of knowledge management – Intellectual capital – Knowledge society – Introduction to innovation – Types and levels of innovation – Knowledge management in virtual teams – Real-world case studies.

Strategic Alignment of Knowledge and Innovation

KM and strategic management – Creating KM awareness and articulation – Strategic evaluation and alignment – Agile alignment practices – Leadership for KM – Role of Chief Knowledge Officer (CKO) – Building a learning organization – KM metrics and measurement systems.

Designing KM Architecture and Frameworks

Knowledge audit and gap analysis – Business environment analysis – Creating a KM team – KM system blueprint design – Tactical approaches: Portals and Communities of Practice (CoPs) – Capturing, storing, sharing organizational knowledge – Implementation challenges and best practices.

Technologies for Knowledge Management

Intranet and groupware – Collaborative intelligence tools – Web 2.0, portals, and social media integration – Knowledge security and ethical considerations – AI applications in KM – Data analytics and its role in knowledge discovery – Selecting KM packages and platforms.

Knowledge Sharing and Innovation Culture

Reward and recognition systems – Change management for KM adoption – Creating a knowledge-sharing culture – Continuous improvement and KM maturity models – KM-led innovation models – Benchmark KM success stories from India and globally.

Design Thinking and Emerging Practices

Design thinking principles – Applying design thinking for KM and innovation – Cross-functional collaboration – Idea incubation frameworks – Knowledge co-creation – Future trends in KM and innovation – Sustainability and knowledge ecosystems.

References:

1. Jennex, Eugene Murray (Ed.), Knowledge Management, Innovation, and Entrepreneurship in a Changing World, IGI Global,
2. Morabito, Sack & Bhate, Designing Knowledge Organizations: A Pathway to Innovation Leadership, John Wiley & Sons, 2018
3. Fernandez, Gonzalez & Sabherwal, Knowledge Management, Pearson, 2007
4. Madan Mohan Rao, Knowledge Management Tools and Techniques, Elsevier Inc., 2007
5. Dalkir, K., Knowledge Management in Theory and Practice, MIT Press, 4th Ed., 2023
6. Peter Drucker, HBR on Knowledge Management, Harvard Business Review Press, 1995

E-Resources:

- ✧ https://www.apqc.org – Best practices in knowledge management
- ✧ https://www.kmworld.com – KM trends, tools, and thought leadership
- ✧ https://www.hbr.org – Articles on KM, innovation, and organizational learning
- ✧ https://www.coursera.org – Online courses on Knowledge Management (by U. of Melbourne, TU Delft, etc.)
- ✧ https://www.linkedin.com/learning – KM and Innovation training modules

✧ https://www.mckinsey.com – Reports on knowledge-led innovation and digital transformation

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of the foundations of knowledge management, strategic alignment, KM architecture, enabling technologies, knowledge-sharing culture, and design thinking for innovation.
- **CO2:** Interpret and relate the concepts of intellectual capital, strategic alignment of KM and innovation, KM frameworks, technological applications, organizational culture, and design thinking principles to understand the knowledge-based economy.
- **CO3:** Apply knowledge audit techniques, KM system design principles, appropriate technologies for knowledge sharing, and change management strategies to build a knowledge-centric organization.
- **CO4:** Analyze the strategic alignment of KM with business goals, different KM frameworks, the role of technology, and organizational culture to evaluate a firm's readiness for knowledge-led innovation.
- **CO5:** Evaluate various KM systems, technologies, and cultural initiatives to assess their effectiveness in fostering knowledge sharing, continuous improvement, and sustainable innovation.
- **CO6:** Develop an integrated knowledge management and innovation strategy by applying design thinking principles, leveraging emerging technologies, and fostering a knowledge-sharing culture to achieve sustainable competitive advantage.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	3	2
CO2	2	3	2	3	2	2	3
CO3	3	2	3	3	2	3	3
CO4	3	3	2	3	3	3	2
CO5	2	2	3	2	2	2	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25014	Industrial Relations and Labour Legislations	L T P C
		3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of the concepts, frameworks, and legal provisions of industrial relations and labour legislations in the Indian context. It equips students with insights into the evolution and functioning of trade unions, dispute resolution mechanisms, and welfare measures. Learners will also explore various contemporary labour laws that govern wages, employment conditions, social security, and employee rights. The course also emphasizes recent reforms, compliance frameworks, and their implications for Business analytics and HR decision-making in the digital economy.

Industrial Relations and Trade Unions

Concept, scope, and objectives of industrial relations – Importance and approaches to IR – Indian IR system – Trade Union Act, 1926: definitions, objectives, functions, and legal procedures – Registration of trade unions – Rights and responsibilities – Issues and challenges – Employee relations in IT and emerging sectors.

Industrial Disputes and Labour Welfare

Industrial Disputes Act, 1947 – Causes and types of disputes – Strikes and lockouts – Resolution mechanisms: Conciliation, Arbitration, Adjudication – Promoting industrial peace – Labour welfare: statutory and voluntary provisions – Welfare funds – Labour in the informal and gig economy.

Legal Framework: Wages and Working Conditions

Genesis of labour laws in India – Principles guiding labour legislation – Factories Act, 1948 – Minimum Wages Act, 1948 – Payment of Wages Act, 1936 – Payment of Bonus Act, 1965 – Relevance to workforce analytics and wage modeling.

Legal Framework: Employment, Training and Compensation

The Industrial Employment (Standing Orders) Act, 1946 – Apprentices Act, 1961 – Equal Remuneration Act, 1976 – Payment of Gratuity Act, 1972 – Employee Compensation Act, 2013 – Workforce diversity and fairness in labour analytics.

Social Security and Employee Protection

Employees' Provident Fund and Miscellaneous Provisions Act, 1952 – Employees' State Insurance Act, 1948 – Maternity Benefit Act, 1961 – Contract Labour Regulation and Abolition Act, 1970 – Child Labour Regulation Act, 1986 – Analytics in tracking compliance and benefits.

Emerging Trends and Technology in IR & Labour Compliance

Digitalization of labour law compliance – Labour Codes and reforms (Code on Wages, Social Security Code, OSH Code, Industrial Relations Code) – Use of HR analytics in industrial relations – Role of technology in grievance redressal and legal reporting.

References:

1. C. B. Mamoria & S. Mamoria (with P. Subba Rao), Dynamics of Industrial Relations, Himalaya Publishing House, 16th Ed., 2023
2. C. B. Mamoria & S. Mamoria, Dynamics of Industrial Relations, Himalaya Publishing House, 16th Ed., 2023
3. Arun Monappa, Ranjeet Nambudiri & Patturaja Selvaraj, Industrial Relations and Labour Laws, Tata McGraw Hill, 2012 edition.
4. P. K. Padhi, Labour and Industrial Laws, PHI Learning, 5th Ed., 2024
5. P. R. N. Sinha, Indu Bala Sinha & Seema Priyadarshini Shekhar, Industrial Relations, Trade Unions and Labour Legislation, Pearson Education India, 3rd Ed., 2017
6. S. C. Srivastava, Industrial Relations and Labour Laws, Vikas Publishing House, 8th Revised Ed., 2022
7. Taxmann, Labour Laws with Code on Wages, etc., 2025 Edition
8. N. D. Kapoor, Elements of Mercantile Law, Sultan Chand & Sons, 2014
9. P. N. Singh & Neeraj Kumar, Employee Relations Management, Pearson 2011
10. C. S. Venkata Ratnam, Globalisation and Labour Management Relations, Response Books,2007.
11. Ratna Sen, Industrial Relations in India: Shifting Paradigms, Macmillan

E-Resources:

- ✧ Ministry of Labour and Employment, Government of India – https://labour.gov.in
- ✧ ILO Legal Database – https://www.ilo.org/dyn/natlex
- ✧ PRS India Labour Code Tracker – https://prsindia.org
- ✧ EPFO India – https://www.epfindia.gov.in
- ✧ National Institute of Labour Economics Research and Development – https://www.nilerud.org
- ✧ India Code Portal (Bare Acts) – https://www.indiacode.nic.in

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the industrial relations framework, trade unions, dispute resolution mechanisms, labour welfare, key labour laws, social security provisions, and emerging trends in technology and compliance.
- **CO2:** Interpret and relate the principles of industrial relations, trade union functioning, labour laws concerning wages and working conditions, social security acts, and the new labour codes to understand the legal and social aspects of employment.
- **CO3:** Apply knowledge of the Industrial Disputes Act, Factories Act, and other relevant labour laws to manage industrial relations, resolve disputes, and ensure compliance with working conditions and social security provisions.
- **CO4:** Analyze the impact of various labour legislations, including those for wages, employment, and social security, on organizational compliance, employee relations, and HR decision-making.
- **CO5:** Evaluate the effectiveness of trade unions, dispute resolution mechanisms, and social security programs to assess their role in promoting industrial peace and employee well-being.

- **CO6:** Develop a comprehensive compliance strategy by integrating knowledge of traditional labour laws, recent labour code reforms, and the use of HR analytics to manage industrial relations and legal reporting in the digital economy.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	2	3
CO2	3	3	3	2	-	3	2
CO3	2	2	3	2	2	2	2
CO4	3	2	2	2	-	2	3
CO5	2	3	3	3	2	3	3
CO6	3	3	2	3	3	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25015 **Negotiation and Conflict Management** **L T P C**
3 0 0 3

Course Objectives:

This course aims to develop a comprehensive understanding of negotiation dynamics and conflict management in organizational settings. It equips learners with practical skills to navigate negotiations through structured processes, ethical considerations, and cultural awareness. Students will explore sources and types of conflict at individual, group, and organizational levels and learn how to apply effective resolution models. The course also emphasizes the role of interpersonal dynamics, organizational behavior, and conflict cost assessment in enhancing workplace harmony and productivity.

Fundamentals of Negotiation

Nature and characteristics of negotiation – Dimensions and structure – Negotiation norms and values – Types of negotiation – The negotiation process – Role of perception and preparation – Communication and influence – Key negotiation techniques – Contemporary issues in negotiation.

Negotiation Strategies and Ethics

Planning for negotiation – Strategic and tactical approaches – Distributive vs. integrative bargaining – Sources and use of negotiation power – Cross-cultural negotiation nuances – Ethical considerations and dilemmas in negotiation settings.

Introduction to Conflict Management

Definition and nature of conflict – Types and sources of conflict – Models: Process and structural – Conflict domains and trends – Conflict mapping and tracking – Relationship between conflict and performance – Advantages and disadvantages of conflict in workplace settings.

Managing Interpersonal, Group, and Organizational Conflicts

Personality and individual differences – Interpersonal and team-based conflict – Organizational conflict – Conflict with subordinates and superiors – Techniques to resolve group conflict – Organizational conflict strategies in diverse teams and matrix structures.

Conflict Resolution Models and Workplace Dynamics

Framework and classical models of conflict resolution – Environmental and gender-based conflicts – Role of leadership in resolution – New developments in conflict resolution – Mediation and arbitration techniques – Assessing and managing the cost of conflict at work.

Negotiation and Conflict Management in a Digital Workplace

Remote work and virtual negotiation – Technology-enabled conflict resolution – AI tools for negotiation support – Digital ethics and emotional intelligence – Case studies from global workplaces – Trends in conflict and negotiation in hybrid organizations.

References:

1. Lewicki, R. J., Saunders, D. M., & Barry, B. Negotiation, McGraw-Hill Education, 9th Ed., 2024
2. Rout, E. & Omika, N. Corporate Conflict Management: Concepts & Skills, PHI Learning, 2007
3. Spangle, M. & Isenhart, M. W. Negotiation: Communication for Diverse Settings, Sage Publications, 2008
4. Singh, B. D. Managing Conflict and Negotiation, Excel Books,2008.
5. Corvette, B. A. B. Conflict Management: Practical Guide to Develop Negotiation Strategies, Pearson, 2006.
6. Rahim, M. A. Managing Conflict in Organizations, Transaction Publishers, 4th Ed., 2015
7. Harvard Business Essentials, Negotiation, Harvard Business School Press, 2003
8. Oliver, D. How to Negotiate Effectively, Kogan Page, 2010.
9. Subbulakshmi, Conflict Resolution Techniques, ICFAI University Press, 2005.

E-Resources:

- ✧ Harvard Program on Negotiation: https://www.pon.harvard.edu
- ✧ MIT Conflict Management Resources: https://mitsloan.mit.edu

- ✧ Mediate.com – Online Conflict Resolution Tools: https://www.mediate.com
- ✧ Chartered Institute of Arbitrators (CIArb): https://www.ciarb.org
- ✧ SHRM Conflict Management Tools: https://www.shrm.org
- ✧ Stanford Online Conflict Resolution Courses: https://online.stanford.edu

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of the fundamentals of negotiation, key strategies, the nature and types of conflict, conflict management approaches, resolution models, and the role of technology in negotiation and conflict.
- **CO2:** Interpret and relate the principles of negotiation, strategic bargaining, the sources of conflict, interpersonal and organizational dynamics, resolution frameworks, and the impact of technology on communication and conflict.
- **CO3:** Apply negotiation strategies and ethical principles, conflict mapping techniques, and resolution models to effectively manage and resolve disputes at the individual, group, and organizational levels.
- **CO4:** Analyze negotiation power dynamics, the causes and types of organizational conflict, resolution models, and the cost of conflict to assess their impact on workplace harmony and productivity.
- **CO5:** Evaluate various negotiation strategies, conflict resolution models, and the ethical implications of digital tools to make informed decisions for managing conflicts and improving outcomes.
- **CO6:** Develop a comprehensive conflict management plan by integrating knowledge of negotiation techniques, conflict resolution models, and modern digital tools to foster a collaborative and productive work environment.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	2	3
CO2	3	3	3	3	2	3	2
CO3	3	3	2	2	-	3	2
CO4	3	3	3	3	-	2	3
CO5	2	3	3	3	2	3	3
CO6	3	3	3	2	3	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25016	Reward and Compensation Management	L T P C
		3 0 0 3

Course Objectives:

This course equips learners with the knowledge and skills to design, analyze, and restructure reward and compensation systems aligned with organizational strategy and performance. It explores the economic, behavioral, and strategic dimensions of compensation practices in the modern labor market. Students will understand employee benefits, incentive structures, executive and sales compensation plans, and performance-based reward models. The course also integrates digital trends in compensation analytics, benchmarking practices, and emerging global compensation practices, enabling students to contribute effectively to HR strategy in diverse work environments.

Foundations of Compensation and Reward Systems

Compensation – Definition, objectives, and principles – Compensation design and strategy – Concepts of reward management - Theories of wage determination – Wage structures and types – Wage boards and policy in India – Compensation decisions and bench marking – Trends and reward system innovations in India.

Labour Market Economics and Compensation

Labour markets: macroeconomic and micro economic perspectives – Unemployment and labour supply– demand models – Neoclassical theory implications for compensation – Trade-offs in compensation design – Economic valuation of employee contributions – Labour market trends and global mobility.

Employee Benefits and Reward Programs

Nature and types of employee benefits – Statutory and voluntary benefits in India – Deferred compensation plans – Non-monetary benefits – Meaning and elements of reward – Designing reward systems – Approaches to rewards – Distinguishing compensation from reward – Impact on employee motivation.

Performance-Based Compensation Models

Performance Management System (PMS) – Performance indicators, standards, and metrics – Competency-based pay – Performance modeling – Gain sharing plans – Team-based rewards – Enterprise incentive schemes – ESOPs – Profit sharing mechanisms – Linkage between performance and reward.

Executive and Sales Compensation Design

Executive compensation: components, theories, and design models – Fixed vs. variable pay – Executive incentive programs – Sales compensation structure – Administration and motivational techniques – Sales force incentives – Compensation in MNCs and global reward systems.

Trends and Analytics in Compensation Management

Digital compensation management systems – Compensation dashboards – Use of analytics in pay equity, bench marking, and predictive modeling – AI in compensation design – International trends in pay transparency – Ethics and governance in reward management.

References:

1. Henderson, R. I. Compensation Management in a Knowledge-Based World, Prentice Hall, 2007
2. Armstrong, M. & Murlis, H. Handbook of Reward Management Practice, Kogan Page, 7th Ed., 2023
3. Martocchio, J. J. Strategic Compensation: A Human Resource Management Approach, Pearson, 11th Ed., 2025
4. Thorpe, R. & Homan, G. Strategic Reward Systems, Prentice Hall, 2000 publication.
5. Lawler III, E. E. Rewarding Excellence: Pay Strategies for the New Economy, Jossey-Bass, 2000
6. Plannery, T. P., Hofrichter, D. A. & Platten, P. E. People, Performance and Pay, Free Press.
7. Armstrong, M. Reward Management: A Practical Introduction, Kogan Page, 3rd Ed., 2021

E-Resources:

- ✧ WorldatWork Total Rewards Association – https://www.worldatwork.org
- ✧ Society for Human Resource Management (SHRM) – https://www.shrm.org
- ✧ International Labour Organization (ILO) – https://www.ilo.org
- ✧ Payscale Compensation Research – https://www.payscale.com
- ✧ Harvard Business Review Compensation Strategy Articles – https://hbr.org
- ✧ CIPD – Reward Management Research – https://www.cipd.co.uk

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of compensation and reward systems, labor market economics, employee benefits, performance-based models, executive and sales compensation, and digital trends in compensation management.
- **CO2:** Interpret and relate the principles of wage determination, labor market dynamics, benefit structures, performance management systems, executive pay models, and compensation analytics to design effective reward strategies.
- **CO3:** Apply knowledge of compensation theories, economic models, statutory and non-monetary benefits, and performance-based incentive schemes to design and administer a comprehensive reward system.

- **CO4:** Analyze the impact of labor market trends, performance metrics, and different compensation structures on organizational performance and employee motivation.
- **CO5:** Evaluate various compensation and reward strategies, including performance-based and executive pay models, to assess their alignment with organizational goals and to ensure equity and compliance.
- **CO6:** Develop a strategic compensation and reward framework by integrating labor market insights, benefits programs, performance models, and data analytics to enhance employee value and organizational competitiveness.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	-	3	2
CO2	3	3	3	2	2	3	2
CO3	3	2	3	2	2	3	2
CO4	3	3	3	2	2	3	3
CO5	3	3	2	2	3	2	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25017 International Human Resource Management L T P C
3 0 0 3

Course Objectives:

This course aims to provide students with a comprehensive understanding of the policies, practices, and strategies of human resource management in international Business settings. It explores models of IHRM, the impact of globalization on HR functions, and the challenges of managing a culturally diverse workforce. Students will develop competencies in international staffing, expatriation, cross-border training, performance evaluation, and compensation planning. Emphasis is also placed on international labor standards, emerging issues in global HR, and the use of analytics in IHRM decision-making.

Foundations of International HRM

Definition and importance of IHRM – Evolution of HRM in global settings – Models of IHRM: Matching Model, Harvard Model, Contextual Model, 5P Model, European Model – IHRM policies – Standardization vs. Localization of HR practices in MNCs – Role of IHRM in strategic decision-making.

Global Strategy and Cultural Context

Internationalization and global Business strategies – Strategic orientation of IHRM – IHRM in cross-border mergers and acquisitions – International joint ventures and alliances – Building competitive advantage through HRM – Cultural diversity and its impact on IHRM strategies.

Global Staffing and Talent Acquisition

Staffing approaches: ethnocentric, polycentric, regiocentric, and geocentric – Role of expatriates, inpatriates, and non-expatriates – International recruitment and selection methods – Talent mobility and employer branding – Challenges in cross-border staffing.

Training, Development and Performance Management

Expatriate training programs – Components and types – Host country nationals (HCN) training – Repatriation process – Trends in international T&D – Performance appraisal systems in global settings – Cultural dimensions in performance evaluation.

International Compensation Management

Components of global compensation packages – Approaches to international compensation: balance sheet, localization, lump sum, cafeteria, global pay – Challenges in compensation design – International labor standards – Taxation and social security issues – Gender equity and pay parity.

Contemporary Issues and Analytics in IHRM

Digital tools in IHRM – Role of AI in global HR practices – International talent analytics and decision-making – Diversity, equity, and inclusion practices – Sustainable HRM in global organizations – Case studies on cross-cultural conflicts and HR innovation.

References:

1. Dowling, P., Festing, M., & Engle, A. International Human Resource Management, Cengage Learning, 8th Ed., 2024
2. Tarique, I., Briscoe, D., & Schuler, R. International Human Resource Management: Policies and Practices for Multinational Enterprises, Routledge, 2nd Ed., 2023
3. Harzing, A.-W., & Pinnington, A. International Human Resource Management, Sage Publications, 5th Ed., 2023
4. Brewster, C., Sparrow, P., Vernon, G., & Houldsworth, E. International HRM, Kogan Page, 4th Ed., 2023

5. Tayeb, M. H. International Human Resource Management, Oxford University Press, 3rd Ed., 2021
6. Rao, P. L. International Human Resource Management: Text and Cases, Excel Books, 3rd Ed., 2022

E-Resources:

- ✧ SHRM Global HR Resources – https://www.shrm.org
- ✧ Harvard Business Review (HBR) – https://hbr.org
- ✧ ILO Labour Standards Portal – https://www.ilo.org
- ✧ HRM Asia – https://hrmasia.com
- ✧ CIPD Global HR Practice – https://www.cipd.co.uk
- ✧ IHRM Research & Analytics Resources – https://www.researchgate.net

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of the foundations of IHRM, global business strategies, staffing approaches, training and performance management, international compensation, and emerging trends in IHRM and analytics.
- **CO2:** Interpret and relate the models of IHRM, strategic and cultural factors, expatriate challenges, performance appraisal systems, compensation approaches, and the role of technology to understand the complexities of managing a global workforce.
- **CO3:** Apply IHRM models and policies, global staffing and recruitment techniques, training and development programs, and international compensation strategies to manage a multinational workforce.
- **CO4:** Analyze the impact of global strategies, cultural diversity, training programs, compensation structures, and technology on IHRM practices and organizational performance.
- **CO5:** Evaluate different global staffing approaches, training and development initiatives, international compensation packages, and sustainable HRM practices to make informed decisions for a multinational enterprise.
- **CO6:** Develop a strategic IHRM plan by integrating knowledge of global strategies, talent acquisition, performance management, compensation, and analytics to manage a diverse, cross-border workforce effectively.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	-	2	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO2	3	3	2	2	2	3	2
CO3	3	3	3	2	2	3	2
CO4	3	3	2	2	3	3	3
CO5	3	3	3	2	3	3	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25018 **Managing HR in the Digital Age** **L T P C**
3 0 0 3

Course Objectives:

This course enables students to critically understand the transformation of Human Resource Management (HRM) in the digital era. It explores the evolution of digital HR, emerging technologies such as AI and big data in HR practices, and their ethical, social, and strategic implications. The course helps learners develop intervention strategies for promoting employee well-being and organizational agility. Emphasis is placed on balancing technological innovations with inclusivity, adaptability, and sustainable workforce practices. By the end, students will be able to evaluate and implement digital solutions to enhance employee engagement and strategic HR decision-making.

Introduction to Digital HR Transformation

Definition and scope of digital HR transformation – Evolution of HR technology – Drivers and enablers of digital HR – Strategic importance of HR in digital Business transformation – Role of HR leaders in managing digital change – Challenges and opportunities in digitalizing HRM.

Emerging Technologies and Digital Trends in HR

Key technologies in digital HR – SMAC (Social, Mobile, Analytics, Cloud) – Applications of Artificial Intelligence (AI), machine learning in recruitment, performance appraisal, and engagement – Role of big data and HR analytics in decision-making – Predictive HR – Ethical challenges and risks.

Implications of Digital HR on Work and People

Benefits and drawbacks of digital HR – Automation and its effects on job roles – Job displacement and redeployment – Data privacy, security, and surveillance concerns – Impact on organizational culture and employee trust – Psychological contract in digital workplaces.

HR Interventions and Strategic Adaptability

Designing flexible work models – Virtual workspaces and hybrid teams – Upskilling and reskilling strategies – Agile HR practices – Building a culture of learning, innovation, and collaboration – Data-driven decision-making and ethical governance in HR tech.

Well-being and Inclusivity in the Digital Workplace

Digital well-being: psychological, physical, and social dimensions – Work-life integration in technology-enabled environments – Designing inclusive digital workplaces – Ensuring accessibility, diversity, and emotional intelligence – Organizational support systems for well-being.

Future of HR and Global Digital Practices

HR's role in digital sustainability – The future of work and workforce – HR in Industry 5.0 – Blockchain and metaverse applications in HR – International case studies on digital HR transformation – Indian practices and public policy frameworks supporting digital HR.

References:

1. Mondal, S.R., Di Virgilio, F., & Das, S. HR Analytics and Digital HR Practices: Digitalization Post COVID-19, Springer, 2021
2. Waddill, D.D. Digital HR: A Guide to Technology-Enabled Human Resources, SHRM, 2018
3. Pandey, A., Balusamy, B., & Chilamkurti, N. Disruptive Artificial Intelligence and Sustainable HRM, CRC Press, 2023
4. Manuti, A., & De Palma, P. Digital HR: A Critical Management Approach to Digitalization, SSRU Journal of Management Science, 2018
5. Armstrong, M., & Taylor, S. Armstrong's Handbook of Strategic Human Resource Management, Kogan Page, 2021

E-Resources:

- ✧ SHRM Digital HR Resources: https://www.shrm.org
- ✧ McKinsey Future of HR Insights: https://www.mckinsey.com
- ✧ CIPD: People Analytics and Technology in HR: https://www.cipd.co.uk
- ✧ HBR Digital HR Case Studies: https://hbr.org
- ✧ NASSCOM Digital Workforce Reports: https://nasscom.in
- ✧ Udemy / Coursera Courses: Digital HR, HR Analytics using Python/Excel

Course Outcomes

Upon successful completion of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of digital HR transformation, emerging technologies like AI and big data, the implications for work and people, HR interventions, well-being and inclusivity, and future trends in digital HR.

- **CO2:** Interpret and relate the drivers of digital HR, the applications of technologies, the ethical and psychological implications, HR intervention strategies, and global trends to understand the evolving digital workplace.
- **CO3:** Apply an understanding of digital HR technologies, strategic adaptability models, and well-being frameworks to design and implement HR interventions that support a digital-first organization.
- **CO4:** Analyze the impact of emerging technologies, automation, and data privacy issues on job roles, organizational culture, and employee well-being to make informed HR decisions.
- **CO5:** Evaluate various digital HR technologies, well-being programs, and inclusivity strategies to assess their effectiveness in enhancing employee engagement and organizational agility.
- **CO6:** Develop a comprehensive, future-ready HR strategy by integrating an understanding of digital transformation, emerging technologies, ethical considerations, and well-being initiatives to create a sustainable and inclusive digital workplace.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	3	3	3
CO2	3	3	3	2	3	3	3
CO3	3	3	2	2	2	3	2
CO4	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25019	Supply Chain and Logistic Management	L T P C 3 0 0 3

Course Objectives:

To develop a holistic understanding of supply chain fundamentals and strategic roles in a competitive Business environment.To enable learners to analyze and design efficient supply chain networks considering uncertainty, risk pooling, and global integration.To impart knowledge on planning demand, inventory, and supply with cost-effective logistics and agile solutions.To explore innovations including digital technologies, green logistics, and reverse supply chain concepts for sustainability.To build competencies in leveraging IT, analytics, and AI tools for data-driven supply chain decisions aligned with industry 4.0 and global trends.

Fundamentals of Supply Chain Management

Supply Chain – Definition – Evolution – Role in Economy – Enablers and Drivers of Supply Chain Performance – Decision Phases – Supply Chain Strategy and Competitive Advantage – Key Performance Metrics – Strategic Fit – Global Trends

Strategic Sourcing and Network Design

Make vs. Buy Decision – Core vs. Non-Core Processes – Sourcing Strategy – Supplier Selection and Development – Worldwide Sourcing – Distribution Network Design – Online and Offline Channels – Network Design Framework – Impact of Uncertainty – Risk Pooling

Demand Planning and Inventory Management

Supply Chain Inventory Types – Cycle Inventory – Safety Inventory – Short Life-Cycle Products – Multi-Item/Location Inventory – Revenue Management – Demand Forecasting – Technology in Demand Planning – Supply–Demand Synchronization

Logistics Strategy and Channel Management

Logistics Definition and Scope – Value Chain and Customer Service – Logistics Functions and Network – Logistics Outsourcing – 3PL to 6PL Models – Distribution Channel Strategy – Role of Logistics in Competitive Advantage – Service Provider Selection

Transportation, Packaging, and Global Logistics

Transport Systems – Modal Characteristics – Containerization – Freight Management – Incoterms – International Logistics – Green and Reverse Logistics – Packaging Design and Cost – Industrial vs. Consumer Packaging – Unitization – Smart Packaging

Technology Trends and Performance Analytics

Supply Chain & Logistics Technologies – AI – Advanced Analytics – IoT – Intelligent Automation – RPA – Blockchain – E-Logistics Systems – Performance Measurement Tools – Total Logistics Cost – Strategic Planning – Digital Twins and Immersive Tech

References:

1. Chopra, S., Meindl, P., & Kalra, D.V. Supply Chain Management: Strategy, Planning, and Operation, Pearson Education, 7th Ed., 2023.
2. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. Designing and Managing the Supply Chain, Tata McGraw-Hill Education, 4th Ed., 2021.

3. Shah, J. Supply Chain Management: Text and Cases, Pearson Education, 2nd Ed., 2020.
4. Ballou, R.H. Business Logistics and Supply Chain Management, Pearson Education, 6th Ed., 2022.
5. David, P. International Logistics, Biztantra, 2nd Ed., 2017.
6. Stadtler, H., & Kilger, C. Supply Chain Management and Advanced Planning, Springer, 4th Ed., 2015.
7. Christopher, M. Logistics & Supply Chain Management, Pearson, 6th Ed., 2016.

E-Resources:

- ✧ MIT Supply Chain Management MicroMasters
- ✧ Coursera – Supply Chain Analytics by Rutgers
- ✧ SCM World Resources
- ✧ Harvard Business Review – Supply Chain Articles
- ✧ INFORMS Journal on Applied Analytics

Course Outcomes

After completing the course, the learner will be able to:

- **CO1:** Explain the principles, strategic importance, and drivers of supply chain management, including network design, demand planning, logistics, transportation, and technology trends.
- **CO2:** Interpret and relate the concepts of supply chain strategy, sourcing, network design, inventory types, logistics channels, international transportation, and digital technologies to understand their interconnected roles.
- **CO3:** Apply strategic sourcing decisions, demand forecasting techniques, logistics outsourcing models, and innovative technologies to manage an efficient and sustainable supply chain.
- **CO4:** Analyze supply chain network design, inventory management strategies, logistics channels, transportation systems, and digital tools to evaluate performance and identify opportunities for improvement.
- **CO5:** Evaluate various sourcing strategies, demand and inventory management techniques, logistics models, and technology applications to make informed decisions for optimizing the supply chain.
- **CO6:** Develop a comprehensive supply chain strategy by integrating knowledge of supply chain fundamentals, network design, logistics, and emerging technologies to enhance competitiveness and sustainability.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	3	3	2	2	3	3	3
CO3	2	3	3	3	2	2	3
CO4	2	2	2	2	2	2	2
CO5	3	2	2	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25020 **Quality Management** **L T P C**
3 0 0 3

Course Objectives:

To provide foundational knowledge on the evolution, significance, and scope of quality management in modern organizations. To expose students to the philosophies, principles, and contributions of leading quality thinkers and global practices. To equip learners with statistical tools, Six Sigma, and process capability analysis for quality improvement. To develop proficiency in applying practical quality tools like FMEA, QFD, bench marking, and Taguchi methods. To promote an understanding of quality management systems (ISO standards), audits, and total quality culture. To foster knowledge on employee involvement, supplier partnerships, and continuous process improvement for operational excellence.

Evolution and Fundamentals of Quality

Definition of Quality – Need and evolution – Perspectives of Quality – Total Quality Concepts – Product and Service Quality Dimensions – Quality Design: Input–Process–Output – Customer Focus – Customer Perception and Retention – Cost of Quality – Role of Top Management.

Philosophies and Global Principles of Quality Management

Contributions of Quality Gurus: Deming, Crosby, Juran, Feigenbaum, Ishikawa, Taguchi, Shigeo Shingo, Oakland, Masaaki Imai – Japanese 5S – Quality Circles – 8D Methodology – TQM Culture and Implementation Challenges.

Statistical Quality Control and Reliability Management

Statistical Process Control – Control Charts for Variables and Attributes – Process Capability Analysis – Six Sigma and DMAIC Framework – Reliability in Series and Parallel Systems – Product Life Cycle Curves – Business Process Improvement (BPI) – Total Productive Maintenance (TPM) – Terotechnology.

Tools and Techniques for Quality Enhancement

Seven Traditional Quality Tools – New Management Tools – Bench marking – Poka-Yoke – Failure Mode Effect Analysis (FMEA): Design, Process, Documentation – Quality Function Deployment (QFD) – House of Quality – Taguchi Methods – Signal-to-Noise Ratio – Tolerance Design.

Quality Management Systems and Audits

ISO 9000 and ISO 9004 Standards – QS 9000 – ISO 14000 – Documentation and System Elements – Quality Audits – Guidelines for Performance Improvement – Organizational Culture for Quality – Overcoming TQM Barriers.

Employee Involvement and Supplier Quality

Employee Empowerment – Motivation, Reward, and Recognition – Team Dynamics – Performance Appraisal for Quality – Supplier Selection, Evaluation and Rating – Supplier Partnerships – Collaborative Quality Planning – Role of Technology in Quality Integration.

References:

1. Besterfield, D.H. et al. Total Quality Management, Pearson Education, 6th Ed., 2023.
2. Poornima M. Charantimath Total Quality Management, Pearson, 3rd Ed., 2020.
3. Shridhara Bhat K. Total Quality Management – Text and Cases, Himalaya Publishing, 2nd Ed., 2018.
4. Montgomery, D.C. Introduction to Statistical Quality Control, Wiley, 8th Ed., 2020.
5. Panneerselvam, R. & Sivasankaran, P. Quality Management, PHI Learning, 2nd Ed., 2022.
6. Bureau of Indian Standards IS/ISO 9004:2018 – Guidelines for Performance Improvements, Latest Edition.
7. Hoyle, D. ISO 9000 Quality Systems Handbook, Routledge, 8th Ed., 2023.

E-Resources:

- ✧ ASQ Quality Resources
- ✧ MIT OpenCourseWare – Quality Management
- ✧ NPTEL – Total Quality Management
- ✧ Coursera – Six Sigma and Process Improvement
- ✧ Harvard Business Review – Quality Management Articles
- ✧ IS/ISO Guidelines from BIS

Course Outcomes

After successful completion of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of the evolution and fundamentals of quality, the philosophies of quality gurus, statistical process control, quality tools and techniques, quality management systems, and employee and supplier involvement.
- **CO2:** Interpret and relate the principles of TQM, the philosophies of quality gurus, SPC techniques, quality tools like FMEA and QFD, ISO standards, and employee and supplier roles to understand and manage organizational quality.

- **CO3:** Apply the principles of TQM, statistical process control, and advanced quality tools like FMEA and QFD to improve processes, enhance product reliability, and solve operational issues.
- **CO4:** Analyze the philosophies of quality gurus, statistical quality data, the effectiveness of various quality tools, quality management systems, and employee and supplier performance to diagnose and address quality-related problems.
- **CO5:** Evaluate the implementation of quality management philosophies, statistical process control methods, quality tools and techniques, ISO standards, and employee and supplier strategies to assess overall organizational quality and performance.
- **CO6:** Develop a comprehensive quality management strategy by integrating knowledge of TQM principles, statistical tools, advanced techniques, quality management systems, and employee and supplier engagement to achieve operational excellence and customer satisfaction.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	1	2	2
CO2	2	3	2	2	2	2	2
CO3	3	3	3	2	3	3	3
CO4	3	3	3	3	2	3	3
CO5	2	2	3	3	2	3	3
CO6	3	2	2	2	3	2	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25021	Materials Management	L T P C
		3 0 0 3

Course Objectives:

To provide a strategic understanding of materials management and its importance in achieving operational profitability. To equip learners with knowledge in materials planning, inventory control, purchasing strategies, and warehouse management. To develop competency in analyzing and applying techniques for efficient inventory, procurement, and scheduling decisions. To expose students to global practices in sourcing, demand forecasting, and cost optimization in logistics. To familiarize learners with modern digital tools, ERP systems, and performance measurement techniques for productivity enhancement.

Introduction to Materials Management and Planning Environment

Overview of materials management – Role in operations and profitability – Operating environment – Aggregate planning – Need, strategies, costs, approaches – Master scheduling – Manufacturing Planning and Control systems – MRP and ERP systems – Production plan development.

Materials Requirements Planning and Capacity Control

MRP and MRPII concepts – Bill of Materials (BOM) – Resource Requirement Planning (RRP) – Capacity Management – Scheduling of orders – Production Activity Control – Material Codification – Information systems in planning.

Inventory Management and Control

Inventory objectives – Deterministic and Probabilistic models – Retail Discounting Model – Newsvendor Model – Inventory control policies – Safety stock and reorder levels – Multi-echelon inventory – EOQ – Inventory classification (ABC, VED, FSN) – Technology in inventory tracking.

Purchasing and Procurement Management

Purchasing principles – Establishing specifications – Supplier selection – Price determination – Forecasting – Mixed and seasonal buying strategies – Global sourcing – Purchasing under uncertainty – Capital equipment procurement – Demand management and negotiations.

Warehousing and Store Management

Warehouse functions and types – Storage layout – Store procedures and documentation – Materials receipt and inspection – Stock verification and accounting – Obsolescence and surplus management – Scrap disposal – Value analysis – Transportation and traffic coordination.

Technology, Efficiency and Performance in Materials Management

ERP in materials management – Digital tools and IoT in supply systems – Operational efficiency – Lean practices in inventory and warehousing – Cost effectiveness – KPIs for materials management – Productivity and performance measurement frameworks.

References:

1. Arnold, J.R.T., Chapman, S.N., & Clive, L.M. Materials Management, Pearson, 7th Ed., 2023.

2. Gopalakrishnan, P. Purchasing and Materials Management, Tata McGraw Hill, 6th Ed., 2022.

3. Chitale, A.K., & Gupta, R.C. Materials Management: Text and Cases, PHI Learning, 4th Ed., 2019.
4. Datla, A.K. Materials Management: Procedure, Text and Cases, PHI Learning, 3rd Ed., 2020.
5. Ballou, R.H., & Srivastava, S.K. Business Logistics and Supply Chain Management, Pearson, 6th Ed., 2022.
6. Garg, A.K. Production and Operations Management, Tata McGraw Hill, 4th Ed., 2023.
7. Chary, S.N. Production and Operations Management, Tata McGraw Hill, 4th Ed., 2022.

Course Outcomes

After successful completion of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of materials management fundamentals, planning techniques (MRP/ERP), inventory control models, purchasing and procurement strategies, warehousing, and the role of technology and performance metrics.
- **CO2:** Interpret and relate the principles of aggregate planning, MRP and capacity control, inventory models, supplier selection, warehouse functions, and digital tools to understand the materials management ecosystem.
- **CO3:** Apply materials requirements planning (MRP) systems, deterministic and probabilistic inventory models, and procurement strategies to manage and control material flow and costs.
- **CO4:** Analyze materials planning, inventory control policies, procurement strategies, and warehousing operations to evaluate efficiency and identify areas for improvement.
- **CO5:** Evaluate various materials planning systems, inventory models, sourcing strategies, and warehousing practices to make informed decisions for optimizing the materials management function.
- **CO6:** Develop a comprehensive materials management strategy by integrating knowledge of materials planning, inventory control, procurement, warehousing, and modern technologies to enhance operational profitability and efficiency.

E-Resources:

✧ NPTEL – Materials Management and Logistics

✧ MIT OpenCourseWare – Operations and Supply Chain

✧ Coursera – Operations Management Specialization

✧ ISCEA – Certified Materials Manager Resources

✧ Harvard Business Review – Operations and Procurement Articles

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	2	2	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	2	3	3	2
CO4	2	2	3	3	2	2	3
CO5	2	2	2	2	3	2	2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25022 **Services Operations Management** **L T P C**
3 0 0 3

Course Objectives:

To develop a comprehensive understanding of service operations and their unique characteristics across sectors.To design and improve service delivery processes using tools like blueprinting, service encounter analysis, and technology integration.To assess service quality using standard models and implement continuous improvement practices.To optimize service facilities, layout, and location decisions for effective customer experiences.To formulate strategies for managing capacity and demand, including yield management, queue systems, and service growth.To apply global service operations best practices, digital innovations, and analytics for competitive advantage in the service sector.

Foundations of Service Operations

Nature and growth of service sector – Importance of services in the economy – Service characteristics – Service Package – Classification of services – Service-Dominant Logic – Open systems view – Strategic service vision – Competitive environment – Generic strategies – Winning customers – Role of IT in services – Service firm competitiveness stages.

Designing Services and the Service Encounter

New service development – Design elements – Service Blueprinting – Generic process structures – Service Encounter Triad – Service Orientation – Service Profit Chain – Front-office and Back-office interface – Service decoupling – Technology in service delivery – Automation, e-commerce, self-service innovations.

Service Quality and Performance Improvement

Dimensions of service quality – Service Quality Gap Model – SERVQUAL – Walkthrough audits – Quality by design – Service recovery and guarantees – Productivity improvement – Data Envelopment Analysis (DEA) – Quality tools – Benchmarking – Six Sigma and other quality improvement programs.

Service Facility Layout and Location Optimization

Supporting facilities and services-capes – Facility design and layout – Process analysis for services – Service facility location – Evaluation techniques: Metropolitan metric, Euclidean, Centre of gravity – Retail location modeling – Set covering problems – Vehicle routing and scheduling techniques.

Capacity and Demand Management in Services

Demand management strategies – Capacity management tactics – Supply management – Operations planning and control – Yield management – Service inventory models: Retail Discounting Model, News-vendor Model – Queuing systems and psychology of waiting – Digital queue management.

Service Business Growth and Globalization

Growth strategies – Franchising – Expansion models – Internationalization of services – Cross-cultural service challenges – Use of data analytics in service operations – Global service standards – Service sustainability and innovation.

References:

1. Fitzsimmons, J.A., Fitzsimmons, M.J., & Bordoloi, S. Service Management – Operations, Strategy, Information Technology, McGraw-Hill Education, 9th Ed., 2024.
2. Metters, R.D. Successful Service Operations Management, Cengage Learning, 3rd Ed., 2021.
3. Haksever, C., & Render, B. Service Management, Pearson Education, 3rd Ed., 2022.
4. Johnston, R., & Clark, G. Service Operations Management, Pearson, 4th Ed., 2020.
5. Hollins, B., & Shinkins, S. Managing Service Operations, Sage, 2nd Ed., 2015.
6. Lovelock, C., & Wirtz, J. Services Marketing: People, Technology, Strategy, Pearson Education, 9th Ed., 2023.

Course Outcomes

Upon completion of this course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of service operations, service design, quality management, facility layout, capacity and demand management, and globalization strategies for service businesses.
- **CO2:** Interpret and relate the principles of service-dominant logic, service blueprinting, the service quality gap model, facility location models, demand management tactics, and global service standards to understand the service operations ecosystem.
- **CO3:** Apply service design principles, service quality tools like Six Sigma, facility location evaluation techniques, and demand management strategies to improve service delivery and customer experience.
- **CO4:** Analyze service processes, quality dimensions, facility layout, and demand patterns to identify opportunities for operational improvement and strategic decision-making.
- **CO5:** Evaluate various service delivery models, quality improvement programs, facility optimization techniques, and capacity management strategies to assess their impact on service performance and competitive advantage.
- **CO6:** Develop a sustainable service growth strategy by integrating knowledge of service design, quality management, facility optimization, and capacity planning with global and digital trends to achieve operational excellence.

E-Resources:

✧ MIT OpenCourseWare – Service Operations

✧ NPTEL – Service Operations Management

✧ Coursera – Service Management by University of London

✧ Harvard Business Review – Service Excellence Articles

✧ Service Design Network

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	3	3	3	2	3	3	2
CO3	3	3	3	2	2	3	3
CO4	2	2	3	2	2	2	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO5	3	3	3	3	3	3	3
CO6	2	3	2	2	3	2	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25023 **Lean Six Sigma and Business Excellence** **L T P C**
3 0 0 3

Course Objectives:

The course aims to develop a comprehensive understanding of Lean Six Sigma as a strategic approach for eliminating waste and reducing variation in Business processes. It familiarizes learners with methodologies such as DMAIC, DMADV, Lean, TPM, and BPR, emphasizing their roles in driving organizational excellence. The course equips students with practical tools for process improvement, productivity enhancement, and quality control across manufacturing and service sectors. It also introduces benchmarking, Business excellence models, and the balanced scorecard as essential frameworks for measuring and sustaining performance. Through real-time group projects and case-based learning, students are empowered to apply continuous improvement principles effectively.

Introduction to Six Sigma and Quality Improvement Frameworks

Six Sigma philosophy – Characteristics and objectives – DMAIC and DMADV methodologies – Six Sigma roles and responsibilities – Control plans – Monitoring and sustaining improvements – Case examples from service and manufacturing.

Lean Manufacturing and Waste Elimination

Toyota Production System (TPS) – Types of waste – Lean principles – Just-In-Time (JIT) – Cellular Manufacturing – 5S – SMED – Lean purchasing and logistics – Lean roles – Lean culture and transformation roadmap – Lean economics.

Total Productive Maintenance (TPM) and Operational Effectiveness

TPM house and pillars – OEE (Overall Equipment Effectiveness) – Sixteen types of losses – Integration of TPM and TQM – 8D methodology – Role of employee involvement and cross-functional teams – TPM implementation strategy.

Business Process Excellence (BPE) and Reengineering

Business processes and process management – BPR framework and lifecycle – Principles of reengineering – Benchmarking – Implementation challenges – Business Excellence Models (EFQM, Malcolm Baldrige) – Balanced Scorecard perspectives.

Lean Six Sigma Integration and Application in Various Domains

Synergy between Lean and Six Sigma – Selecting improvement projects – Industry case studies (healthcare, education, logistics, etc.) – Hands-on application of DMAIC tools – Continuous improvement and Kaizen culture.

Group Project and Practical Implementation

Hands-on project involving real-time process improvement on campus or academic domain – Identification of improvement area – Root cause analysis – Application of TQM / Lean / Six Sigma tools – Implementation – Final presentation and documentation – Review and mentoring.

References:

1. George, M., Rowlands, D., Maxey, J., & Price, M. Lean Six Sigma Pocket Toolbook, McGraw-Hill, 2005
2. Suganthi, L., & Samuel, A. A. Total Quality Management, PHI Learning, 2nd Ed., 2019.
3. Ohno, Taiichi. Toyota Production System: Beyond Large-Scale Production, Productivity Press, 2019
4. Harry, M., & Schroeder, R. Six Sigma: The Breakthrough Management Strategy, Doubleday, 2006
5. Womack, J.P., & Jones, D.T. Lean Thinking: Banish Waste and Create Wealth in Your Corporation, Free Press, 2nd Ed., 2003
6. Hammer, M., & Champy, J. Reengineering the Corporation: A Manifesto for Business Revolution, Harper Business, Revised Ed., 2009.

E-Resources:

- ✧ NPTEL – Six Sigma
- ✧ MIT OpenCourseWare – Quality & Lean Systems
- ✧ Coursera – Six Sigma Yellow Belt & Lean Six Sigma Specialization
- ✧ American Society for Quality (ASQ) Learning Center
- ✧ iSixSigma Knowledge Portal
- ✧ Lean Enterprise Institute

Course Outcomes

Upon completion of this course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of Six Sigma, Lean principles, Total Productive Maintenance (TPM), Business Process Reengineering (BPR), and the application of these methodologies to achieve Business excellence through hands-on projects.
- **CO2:** Interpret and relate the principles of Six Sigma, Lean, TPM, BPR, and Business excellence models to understand their synergistic roles in improving processes and sustaining continuous improvement.
- **CO3:** Apply Lean tools, Six Sigma methodologies (DMAIC), and BPR frameworks to identify waste, reduce variation, and redesign processes in a real-world project context.

- **CO4:** Analyze Business processes, Six Sigma data, lean waste, and TPM metrics to diagnose root causes and identify opportunities for operational effectiveness and performance improvement.
- **CO5:** Evaluate the effectiveness of various quality improvement frameworks, including Lean, Six Sigma, BPR, and Business excellence models, using tools like the Balanced Scorecard and benchmarking.
- **CO6:** Develop an integrated continuous improvement plan by synthesizing knowledge of Lean, Six Sigma, TPM, and BPR to solve a real-world problem and achieve Business excellence.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	2	2	2	3	2	2	2
CO4	2	3	2	3	2	3	3
CO5	2	2	3	2	2	2	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25024 **Project Management** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of project management principles, including life cycles, planning, budgeting, scheduling, risk handling, team coordination, and project control. It prepares students to analyze and manage all stages of a project, from initiation to successful completion, within budget and time constraints. Learners will explore quantitative and qualitative tools such as PERT/CPM, resource allocation techniques, conflict resolution strategies, and performance tracking methods. The course will also enable students to manage multi-

functional teams and evaluate project success or failure with a focus on continuous improvement and best practices in project execution.

Fundamentals of Project Management

Project management – Definitions and goals – Project life cycle phases – Project environment – Role of project management in Business – Project manager roles and selection – Skills and responsibilities – Stakeholder management and ethical considerations.

Planning, Budgeting and Risk Analysis

Project planning process – Work Breakdown Structure (WBS) – Cost estimation and budgeting – Schedule forecasting – Identifying and assessing risks – Risk response planning – Tools and techniques for cost control and risk mitigation.

Project Scheduling and Resource Allocation

Scheduling tools – PERT and CPM networks – Time estimates, critical path analysis – Project crashing and resource optimization – Resource loading and leveling – Goldratt's Critical Chain Method – Project scheduling simulation.

Organization Design and Conflict Management

Organizational structures – Functional, matrix, and projectized organizations – Project teams and roles – Conflict sources in projects – Conflict resolution strategies – Communication and negotiation in teams – Building high-performing project teams.

Project Control and Monitoring Techniques

Monitoring progress – Project control process – Internal vs. external control – Earned Value Management (EVM) – Performance indices – Forecasting project outcomes – Project reporting and documentation – Quality assurance and audit mechanisms.

Project Evaluation and Completion

Project success factors – Evaluation models – Administrative closure – Lessons learned – Knowledge capture – Post-project analysis – Success and failure criteria – Best practices in project termination – Continuous improvement for future projects.

References:

1. Nicholas, J.M. (2017). Project Management for Business and Technology, 3rd Ed., Pearson Education.
2. Gray, C.F., & Larson, E.W. (2021). Project Management: The Managerial Process, 8th Ed., McGraw Hill Education (India).
3. Gido, J., & Clements, J. (2021). Successful Project Management, 8th Ed., Cengage Learning.
4. Maylor, H. (2010). Project Management, 4th Ed., Pearson Education.
5. Samuel, J.M., et al. (2017). Project Management, Wiley India.
6. Panneerselvam, R., & Senthilkumar, P. (2019). Project Management, PHI Learning, 2nd Ed.
7. Kerzner, H. (2022). Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 13th Ed., Wiley.

E-Resources:

- ✧ PMI – Project Management Institute

- ✧ NPTEL – Project Management
- ✧ MIT OpenCourseWare – Project Management
- ✧ Coursera – Fundamentals of Project Planning and Management
- ✧ edX – Project Management MicroMasters

Course Outcomes

Upon completion of the course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of project management fundamentals, planning and budgeting, scheduling, organization and conflict management, project control, and evaluation.
- **CO2:** Interpret and relate the project life cycle, Work Breakdown Structure, scheduling tools, organizational structures, Earned Value Management (EVM), and success criteria to understand the project management process.
- **CO3:** Apply project planning and budgeting techniques, scheduling tools like PERT/CPM, and conflict resolution strategies to manage project execution and control.
- **CO4:** Analyze project risks, resource allocation, organizational structures, team dynamics, and project performance metrics to identify and address project challenges.
- **CO5:** Evaluate project outcomes, control mechanisms, and management practices to assess project success, document lessons learned, and identify areas for continuous improvement.
- **CO6:** Develop a comprehensive project management plan by integrating knowledge of project planning, scheduling, risk management, and team leadership to ensure successful project completion and evaluation.

Internal Assessment Methodology (100 Marks):

Component	**Weightage**
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PSO1**	**PSO2**
CO1	3	2	2	2	2	2	2
CO2	3	3	3	2	2	3	2
CO3	3	3	3	3	2	3	3
CO4	2	2	2	2	3	2	3
CO5	3	2	3	3	2	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO6	3	3	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25025 **Data Mining and Decision Science** **L T P C**
3 0 0 3

Course Objectives:

This course enables learners to apply analytical thinking and modern data techniques in solving managerial problems. It introduces core concepts of data mining including classification, prediction, clustering, and pattern recognition, followed by advanced decision science models such as optimization, simulation, and decision analysis. Students will be equipped to interpret complex datasets, build decision support systems, and apply predictive and prescriptive analytics in business scenarios. Emphasis is laid on real-world applications in marketing, finance, operations, and strategy using industry-standard tools and case studies. The course also fosters ethical decision-making and responsible use of data in managerial practice.

Foundations of Data Mining and Business Analytics

Introduction to Data Mining – Knowledge Discovery Process – Applications in Business Functions – Text Mining – Web Mining – Process Mining – Spatial Mining – Data Warehousing and Data Marts – Integration with BI tools and OLAP.

Data Mining Methodologies and Evaluation Metrics

Data Mining Models – CRISP-DM – SEMMA – Domain-Specific Frameworks – Predictive Accuracy Metrics: RMSE, MAE, MAPE, Confusion Matrix – ROC Curve and AUC – Validation Techniques: Hold-Out, K-Fold, Bootstrapping – Model Selection Criteria.

Classification, Clustering & Time Series Models

Supervised Learning – Decision Trees – Logistic Regression – Discriminant Analysis – KNN – Clustering Techniques: K-Means, Hierarchical – Association Rule Mining – Market Basket Analysis – Time Series Forecasting: ARIMA, Holt-Winters – Multivariate Regression.

Introduction to Decision Science & Optimization

Overview of Decision Science – Decision Making under Certainty and Uncertainty – Linear Programming – Transportation & Assignment Models – Goal Programming – Solver Tools in Excel/R.

Simulation, Decision Analysis & Risk Modeling

Monte Carlo Simulation – Queuing Models – Risk Analysis – Expected Value & Decision Tree Analysis – Sensitivity Analysis – Real Options – Business Scenario Planning.

Managerial Applications, Ethics & Emerging Trends

Applications in Marketing, Finance, Operations, and Strategy – Adaptive & Real-Time BI – Augmented Analytics – Ethics in Data Usage – Explainable AI (XAI) – Future of Decision Intelligence in Businesses – Capstone Case Discussion.

References:

1. Jiawei Han, Micheline Kamber, Jian Pei – Data Mining: Concepts and Techniques, Morgan Kaufmann, 4th Ed., 2022.
2. Galit Shmueli et al. – Data Mining for Business Analytics: Concepts, Techniques, and Applications, Wiley, 4th Ed., 2023.
3. James R. Evans – Business Analytics: Methods, Models, and Decisions, Pearson, 3rd Ed., 2022.
4. Ravindran, Phillips, Solberg – Operations Research: Principles and Practice, Wiley, 2nd Ed., 2021.
5. Powell & Baker – Management Science: The Art of Modeling with Spreadsheets, Wiley, 5th Ed., 2020.
6. Efraim Turban, Ramesh Sharda et al. – Business Intelligence: A Managerial Perspective, Pearson, 11th Ed., 2023.
7. Winston, W.L. – Operations Research: Applications and Algorithms, Cengage, 4th Ed., 2020.

E-Resources:

- ✧ https://www.kdnuggets.com – Data Science & Decision Intelligence Updates
- ✧ https://www.analyticsvidhya.com – Tutorials, Case Studies, Model Building
- ✧ https://archive.ics.uci.edu/ml/index.php – Public Datasets for Mining
- ✧ https://www.coursera.org/learn/operations-analytics – Operations Analytics by Wharton
- ✧ https://www.edx.org/learn/data-science – Data Science & Simulation Courses
- ✧ https://towardsdatascience.com – Practical ML and Decision Tools Blog
- ✧ https://www.solver.com – Excel-Based Decision Tools

Course Outcomes

Upon completion of the course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of the data mining process, various methodologies, classification and clustering models, optimization and simulation techniques, and the ethical implications of their application in managerial contexts.
- **CO2:** Interpret and relate data mining models, evaluation metrics, decision science frameworks, and risk analysis to understand and frame complex business problems across different functional areas.

- **CO3:** Apply data mining techniques such as classification, clustering, and time series forecasting, as well as decision science tools like linear programming and simulation, to solve real-world business problems.
- **CO4:** Analyze data mining model performance, the results of optimization and simulation models, and the ethical risks associated with data usage to make informed, data-driven managerial decisions.
- **CO5:** Evaluate the suitability and effectiveness of different data mining and decision science models for specific business applications and assess their impact on organizational strategy and outcomes.
- **CO6:** Develop a comprehensive decision-making framework by integrating data mining insights, optimization models, and ethical considerations to address strategic challenges in a business environment.

CO–PO–PSO Mapping Matrix:

CO Code	PO1	PO2	PO3	PO4	PSO1	PSO2
CO1	3	3	2	2	3	3
CO2	2	3	3	2	3	2
CO3	3	3	3	3	3	3
CO4	3	2	3	3	3	2
CO5	3	3	2	3	3	3
CO6	2	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25C13 **Deep Learning** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide a comprehensive foundation in deep learning architectures and artificial intelligence frameworks for intelligent decision-making. It equips students with the ability to design, optimize, and evaluate deep neural networks and AI models for real-world Business applications. Learners will gain insights into knowledge representation, intelligent agents, expert systems, and heuristic methods for solving complex problems. By integrating AI techniques with management perspectives, students are prepared to drive data-driven innovation and automation in enterprises.

Deep Learning Fundamentals and Network Architectures

Introduction to Deep Learning – Neural Network Design – Forward and Backpropagation – XOR Problem – Activation Functions – Loss Functions – Hidden Layers – Architecture Tuning – Regularization Techniques – Applications in Business Environments.

Optimization and Training Strategies

Challenges in Neural Network Training – Learning Rate Schedules – Gradient Descent Variants: SGD, Adam, RMSProp – Weight Initialization – Hyperparameter Tuning – Batch Normalization – Dropout – Transfer Learning – Enterprise-Level Model Training.

Intelligent Systems and Knowledge Modeling

Understanding Intelligent Agents – Search and Problem Solving: Heuristic, Exhaustive, State-Space Search – Game-Based Learning (Tic-Tac-Toe) – Knowledge Representation: Semantic Networks, Frames, Ontologies – Business Rule Automation – Strategic Planning Models.

Generative AI Architectures and Techniques

Generative Adversarial Networks (GANs) – Variational Autoencoders (VAEs) – Convolutional Neural Networks (CNNs) – Recurrent Neural Networks (RNNs), LSTMs – Applications in Image Generation, Forecasting, and Process Automation.

Large Language Models and Business NLP

Introduction to LLMs – GPT Series – Prompt Engineering – NLP Pipelines for Text and Speech – Text Summarization – Translation – Chatbots and Virtual Assistants – Responsible Use of LLMs – Bias Mitigation Techniques – Industry Case Studies.

Agentic AI and Business Innovation

Agentic AI Concepts – Autonomous Goal-Oriented Systems – Task Decomposition and Execution – AI Governance – Explainable AI (XAI) – Business Use Cases: Marketing Personalization, AI-Driven Decision-Making, Fraud Detection – Ethical Frameworks for Agentic Systems.

References:

1. Ian Goodfellow, Yoshua Bengio & Aaron Courville – Deep Learning, MIT Press, originally published 2016
2. Deepak Khemani – A First Course in Artificial Intelligence, McGraw Hill, 2013 edition
3. Saroj Kaushik – Artificial Intelligence, Cengage Learning India, 2011 edition
4. Elaine Rich, Kevin Knight & Shivashankar B. Nair – Artificial Intelligence, McGraw Hill, 3rd Ed., 2008
5. Stuart Russell & Peter Norvig – Artificial Intelligence: A Modern Approach, Pearson, 4th Ed., 2020
6. François Chollet – Deep Learning with Python, Manning, 3rd Ed. forthcoming in early 2025
7. Li Deng & Dong Yu – Deep Learning: Methods and Applications, Foundations and Trends in Signal Processing, original 2007 monograph

E-Resources:

- ✧ https://www.deeplearning.ai – Deep Learning Courses & Certifications
- ✧ https://www.coursera.org/specializations/deep-learning – Deep Learning Specialization by Andrew Ng
- ✧ https://www.kaggle.com/learn/intro-to-deep-learning – Applied ML Tutorials

- ✧ https://www.tensorflow.org/ – TensorFlow Resources for Deep Learning
- ✧ https://towardsdatascience.com/ – AI Case Studies and Business Applications

Course Outcomes

At the end of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of deep neural network architectures, optimization techniques, intelligent systems, generative AI models, large language models, and agentic AI concepts for business innovation.
- **CO2:** Interpret and relate the principles of neural network design, optimization strategies, knowledge representation, generative AI applications, and ethical frameworks to understand the functionality and implications of AI systems.
- **CO3:** Apply optimization techniques to train deep learning models, use heuristic methods for problem-solving, and utilize prompt engineering to guide Large Language Models (LLMs) for specific business tasks.
- **CO4:** Analyze the architectures of neural networks, the performance of generative AI models, the knowledge-representation techniques, and the ethical implications of agentic AI systems for strategic decision-making.
- **CO5:** Evaluate various optimization strategies, the effectiveness of generative AI architectures (like GANs and VAEs), and the governance of agentic AI systems to ensure responsible and efficient implementation.
- **CO6:** Develop a business innovation strategy by integrating deep learning fundamentals, intelligent systems, generative AI, and agentic AI to create data-driven and automated solutions for complex real-world problems.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	3	2	3	2
CO2	3	3	3	2	3	3	3
CO3	2	3	2	3	2	3	2
CO4	2	2	3	2	3	2	3
CO5	3	2	2	2	3	3	3
CO6	3	3	2	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25026	Social Media Web Analytics	L T P C
		3 0 0 3

Course Objectives:

This course enables students to critically understand the evolution and strategic use of social media and web platforms for Business communication and analytics. It explores how to engage audiences, build communities, interpret web and social metrics, and optimize digital campaigns using analytics. Emphasis is laid on current tools and best practices for analyzing user behavior, generating insights, and applying ethical considerations in digital strategy. The course integrates theories of communication, data visualization, SEO, and mobile engagement to enhance decision-making in the digital Business environment.

Understanding Social Media Ecosystems

Evolution of Online Communities – History and Growth of Social Media – Comparison with Traditional Media – Social Media Audiences – Goals and Motivations – Influencer Culture – Idea Diffusion and Virality – Theories: Social Ties, Technological Determinism.

Community Building and Digital Influence

Building Digital Communities – Social Media Science – Promotion Strategies – Cross-Platform Integration – Digital PR – Activism and Identity – Social Media in Business and Marketing – User Engagement Patterns.

Ethics, Policies, and Impact Measurement

Social Media Policies – Etiquette and Privacy – Ethics of Emerging Technologies – Trends and Future Scope – Basics of Tracking – Campaign Measurement – Customized Reports – Extracting Insights and Behavioral Observations.

Web Analytics Fundamentals

Introduction to Web Analytics – Data Collection Methods – KPI Planning – Business and Qualitative Analysis – Strategic Components of Analytics – Web Metrics – Proposal and Report Structuring – Data Interpretation.

SEO and Search Behavior Analytics

SEO Principles – User-Generated Content – Web Traffic and User Flow – Navigation, Usability – Mobile Platforms – RSS Feeds – Online Security and Ethics – Eye Tracking and UCD – Content Management Strategies - Understanding search behaviors.

Visual Insights and Strategic Applications

Data Visualization for Social Media – Real-Time Analytics Dashboards – Campaign Optimization – Multichannel Integration – Social Listening Tools – AI in Social Analytics – Performance Benchmarks and Strategy Redesign.

References:

1. Kaushik, A. – Web Analytics 2.0, Wiley Publishing, 2009
2. Fuchs, C. – Social Media: A Critical Introduction, SAGE Publications, 4th Ed., 2024
3. Shrivastava, K. M. – Social Media in Business and Governance, Sterling Publishers, 2013 (1st Ed.)
4. Peterson, R. T. – Web Analytics Demystified, Celilo Group Media, 2004 (1st Ed.)
5. Clifton, B. – Advanced Web Metrics with Google Analytics, Wiley, 2nd Ed., 2012
6. Hyder, S. – The Zen of Social Media Marketing, BenBella Books, 2020 (1st Ed.)
7. Kotler, P., Kartajaya, H., & Setiawan, I. – Marketing 5.0: Technology for Humanity, Wiley, 1st Ed., 2021

E-Resources:

- ✧ https://analytics.google.com/ – Google Analytics Platform
- ✧ https://hootsuite.com/ – Social Media Management Tool
- ✧ https://sproutsocial.com/ – Social Analytics Dashboard
- ✧ https://moz.com/ – SEO and Web Tools
- ✧ https://datastudio.google.com/ – Google Data Studio for Visualization
- ✧ https://blog.bufferapp.com/ – Digital Marketing Insights

Course Outcomes

Upon completion of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of social media ecosystems, community building, ethical and policy frameworks, web analytics fundamentals, SEO, and strategic applications of data visualization and AI tools.
- **CO2:** Interpret and relate social media theories, digital influence strategies, ethical and privacy considerations, web metrics, search behavior, and real-time analytics to understand their interplay in a digital business environment.
- **CO3:** Apply social media promotion strategies, campaign measurement techniques, web analytics fundamentals, SEO principles, and data visualization tools to optimize digital campaigns and make data-driven decisions.
- **CO4:** Analyze social media ecosystems, user engagement patterns, web metrics, search behaviors, and AI-driven insights to evaluate the effectiveness of digital strategies and identify areas for improvement.
- **CO5:** Evaluate various social media platforms, web analytics tools, SEO strategies, and ethical frameworks to assess their impact on brand building, audience engagement, and overall business performance.
- **CO6:** Develop a comprehensive social media and web analytics strategy by integrating knowledge of social media ecosystems, web metrics, SEO, and data visualization to drive business growth and competitive advantage.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%

Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	2	2	3	2
CO2	3	3	3	3	3	3	3
CO3	2	3	3	2	2	3	3
CO4	3	2	2	3	3	3	2
CO5	2	3	3	2	3	3	3
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25027 **E-Business Management** **L T P C**
3 0 0 3

Course Objectives:

This course provides a comprehensive understanding of e-Business fundamentals, infrastructure, and digital tools essential for launching and managing online enterprises. It equips students with knowledge of web and mobile commerce models, internet protocols, e-marketing strategies, and secure payment systems. Emphasis is also placed on the legal, ethical, and privacy challenges in digital environments. Learners will explore real-world applications of e-Business in customer engagement, service delivery, and data security, enabling them to lead digital transformation initiatives in modern organizations.

Fundamentals of E-Business and E-Commerce

Definition and evolution of e-Business – Differences between e-Business and e-commerce – Economic drivers – Myths and advantages – E-Business models – Web 2.0 and S-Commerce – Role of mobile commerce and social media in Business strategies.

Technology Infrastructure and Web Systems

Internet and World Wide Web protocols – FTP – Traditional EDI vs Internet EDI - Intranet and Extranet – Web server basics – Hosting services – E-Business architecture – Digital touchpoints and API-based connectivity – Cloud integration and platform strategies.

Business Applications and Customer Engagement

Consumer oriented e-Business – E-tailing strategies – Digital marketing: email, affiliate, and display advertising – E-CRM systems – Online services and e-governance – Web auctions, virtual communities, and social media marketing – Business-oriented e-Business models.

Payments and Cybersecurity in E-Business

E-payment systems – e-Cash, e-Cheques, micropayments – Payment protocols – Cryptography basics – Network and data security – Authentication and authorization – Secure socket layers (SSL) – Role of blockchain in digital payments.

Legal, Ethical, and Regulatory Frameworks

Cyber laws in India and global context – Contracts, warranties, and consumer protection – Privacy challenges – Encryption and taxation policies – Intellectual property rights – Ethical use of customer data – Digital identity and regulatory compliance.

Emerging Trends and Future of E-Business

Trends in AI-powered commerce – Use of analytics for customer insights – Platform-based Business models – Hyperautomation and digital-first strategies – E-Business in MSMEs and rural markets – Green commerce and sustainable platforms.

References:

1. Efraim Turban, David King, Jae Kyu Lee, Ting-Peng Liang & Deborrah C. Turban — Electronic Commerce: A Managerial and Social Networks Perspective, Springer Texts in Business and Economics, 9th Ed., 2018
2. Harvey M. Deitel et al. — E-Business and E-Commerce for Managers, Pearson, original 2011 edition
3. Gary P. Schneider — Electronic Commerce, Cengage Learning, 12th Ed., 2022
4. Bharat Bhasker — Electronic Commerce: Framework, Technologies and Applications, McGraw Hill, 2020
5. Kamlesh K. Bajaj & Debjani Nag — E-Commerce: The Cutting Edge of Business, TMH, 2019
6. S. Jaiswal — Doing Business on the Internet: E-Commerce (E-Business), Galgotia Publications, 2020
7. Parag Kulkarni et al. — E-Business, Oxford University Press; 2012 edition
8. Shirish C. Sangle — Sustainability and E-Business, SAGE, 2021

E-Resources:

- ✧ https://www.shopify.com/learn – E-commerce startup guides
- ✧ https://www.bigcommerce.com/articles/ – E-Business operations & trends
- ✧ https://www.entrepreneur.com/ – Digital entrepreneurship case studies
- ✧ https://developer.paypal.com/docs/api/overview/ – Payment API & protocol reference
- ✧ https://www.digit.in/ – Indian tech news and legal compliance updates
- ✧ https://www.w3schools.com/ – Web development and protocols basics

Course Outcomes

Upon completion of the course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of e-Business fundamentals, technological infrastructure, customer engagement strategies, cybersecurity, legal frameworks, and emerging trends in digital business.
- **CO2:** Interpret and relate the principles of e-commerce models, web server protocols, digital marketing, payment systems, cyber laws, and analytics to understand the operational aspects of a digital enterprise.
- **CO3:** Apply an understanding of e-Business models, web technologies, e-marketing strategies, secure payment protocols, and legal frameworks to launch and manage an online business.
- **CO4:** Analyze e-business models, digital marketing campaigns, cybersecurity threats, and legal challenges to evaluate their impact on business growth and sustainability.
- **CO5:** Evaluate various e-Business models, technological infrastructure options, payment systems, and ethical frameworks to make informed decisions for digital transformation and innovation.
- **CO6:** Develop a comprehensive e-Business strategy by integrating knowledge of e-commerce, digital marketing, security, legal compliance, and emerging technologies to achieve sustainable business growth.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	3	3	2
CO2	3	3	3	3	3	3	3
CO3	2	3	3	2	3	3	3
CO4	3	2	2	3	3	3	3
CO5	2	3	3	2	3	3	2
CO6	3	3	2	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25028 **Enterprise Resource Planning** **L T P C**
3 0 0 3

Course Objectives:

This course provides a comprehensive understanding of Enterprise Resource Planning (ERP) systems, covering their evolution, benefits, risks, and implementation strategies. It aims to familiarize students with functional modules, project lifecycle management, and integration with systems like CRM and SCM. Learners will explore ERP tools in real-world Business environments, examine post-implementation challenges, and assess the impact of emerging technologies such as cloud computing and augmented reality. The course prepares students to effectively contribute to ERP selection, implementation, and digital transformation in modern enterprises.

Foundations of ERP Systems

ERP Introduction – Evolution of Enterprise Systems – Benefits and Risks – Technology Infrastructure – Role in Business Integration – Warehouse Management Systems.

ERP Functional Modules and Solutions

Overview of ERP Software Solutions – Business Process Reengineering (BPR) – Project Management in ERP – Functional Modules (Finance, HR, Sales, Production) – Organizational Data, Master Data, Document Flow – Integration Capabilities.

ERP Implementation Methodology

ERP Planning and Evaluation – Vendor and Software Selection – Implémentation Life cycle – Méthodologies (ASAP, AIM, Sure Step) – Training and Change Management – Data Migration – Stakeholder Roles: Consultants, Vendors, Employees.

Post-Implementation Review and Maintenance

ERP Support and Maintenance – Measuring Success – ERP Audit – Key Success and Failure Factors – Organizational Impact – Upgrades and Version Management.

Emerging Technologies and ERP Add-ons

Extended ERP Systems – CRM, SCM, Business Intelligence Integration – Cloud ERP – Web-enabled ERP – Mobile ERP – Role of AI and Augmented Reality in ERP Systems.

Real-Time Applications and ERP Trends

Case Studies in ERP Implementation – ERP for MSMEs – Sustainable ERP Practices – Future Trends in ERP (SAP S/4HANA, Oracle Fusion, Microsoft Dynamics 365) – ERP Analytics Dashboards and Visualization.

References:

1. Alexis Leon, A.K. Leon & V. K. Garg – Enterprise Resource Planning, McGraw Hill Education (India), 4th Ed., 2019

2. Simha R. Magal & Jeffrey Word – Integrated Business Processes with ERP Systems, Wiley, 3rd Ed., 2018
3. Jagan Nathan Vaman – ERP in Practice, McGraw Hill, 2008.
4. Mahadeo Jaiswal & Ganesh Vanapalli – ERP, Macmillan India, 2nd Ed., 2015
5. Vinod Kumar Garg & N. K. Venkitakrishnan – ERP: Concepts and Practice, PHI Learning, 2nd Ed., 2021
6. Rajesh Ray – Enterprise Resource Planning, McGraw Hill, 2nd Ed., 2022
7. Thomas H. Davenport – Mission Critical: Realizing the Promise of Enterprise Systems, Harvard Business Review Press, Revised Ed., 2018

E-Resources:

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

Course Outcomes

By the end of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of ERP system foundations, functional modules, implementation methodologies, post-implementation reviews, emerging technologies, and current trends in ERP.
- **CO2:** Interpret and relate the evolution of ERP, functional module data flows, implementation lifecycle stages, success factors, and the role of emerging technologies to understand the complete ERP ecosystem.
- **CO3:** Apply ERP planning and evaluation techniques, BPR principles, structured implementation methodologies, and maintenance strategies to manage an ERP project.
- **CO4:** Analyze ERP functional modules, data structures, and the impact of implementation and emerging technologies to diagnose operational and organizational challenges.
- **CO5:** Evaluate ERP solutions, vendor selection criteria, post-implementation performance, and the integration of extended systems like CRM and SCM to make informed decisions for a digital enterprise.
- **CO6:** Develop a strategic ERP roadmap by integrating knowledge of system foundations, functional modules, implementation strategies, emerging technologies, and future trends to achieve digital transformation.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	3	2	3	3
CO2	3	3	2	2	3	3	2
CO3	2	3	3	2	3	3	3
CO4	2	3	2	3	2	3	3
CO5	3	2	3	2	3	3	2
CO6	3	3	2	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25029 **Business Analytics Using Python** **L T P C**
3 0 0 3

Course Objectives:

This course equips students with essential skills in Python programming for business analytics and decision-making. It enables learners to clean, manipulate, analyze, and visualize data for solving real-world business problems. Emphasis is placed on descriptive, predictive, and prescriptive analytics using Python libraries such as Pandas, NumPy, Matplotlib, Seaborn, and Scikit-learn. Learners are trained to design and evaluate machine learning models, automate reporting, and derive actionable insights across business functions. The course fosters analytical thinking, coding fluency, and ethical data handling aligned with MBA Business Analytics objectives.

Python Basics and Business Use Cases

Introduction to Python – Data Types – Lists, Tuples, Dictionaries – Control Structures – Loops and Functions – Working with Files – String Operations – Python in Business Context – Use Cases in Marketing, Finance, and HR.

Data Handling and Preprocessing

NumPy for Numerical Data – Pandas for Tabular Data – Data Import and Export (CSV, Excel, APIs) – Handling Missing Values – Filtering, Grouping, Aggregation – Data Transformation and Encoding – Data Cleaning in Business Applications.

Data Visualization and Dashboarding

Introduction to Matplotlib and Seaborn – Bar, Line, Pie, Histogram, Heatmaps – Business Dashboards using Plotly – Visualizing KPIs and Business Metrics – Interactive Graphs – Automating Charts for Reporting.

Descriptive and Predictive Analytics

Exploratory Data Analysis (EDA) – Business Summary Statistics – Correlation and Covariance – Linear Regression – Logistic Regression – Use Cases in Customer Churn, Loan Default, and Sales Forecasting – Model Interpretation.

Machine Learning Models for Business Insights

Supervised vs. Unsupervised Learning – Decision Trees – KNN – Clustering (K-Means, Hierarchical) – Model Evaluation Metrics – Cross-Validation – Business Use Cases: Segmentation, Classification, Fraud Detection.

Business Applications, Ethics and Case Studies

Python for Business Process Automation – Text Analytics Basics – Introduction to NLP – Business Decision Dashboards – Ethical Use of Data and AI – AI Governance in Business – Case Studies from Retail, BFSI, and Healthcare Analytics.

References:

1. Wes McKinney – Python for Data Analysis, O'Reilly Media, 2nd Ed., 2017.
2. Reema Thareja – Python Programming using Problem Solving Approach, Oxford University Press, 2017.
3. Aurélien Géron – Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, O'Reilly, 2nd Ed., 2019.
4. Ankur A. Patel – Data Science for Business with Python, Packt, 2020.
5. Jake VanderPlas – Python Data Science Handbook, O'Reilly, 2016.
6. Harvard Business Review – Data Science in Business, Case Compilation, 2022.

E-Resources:

- ✧ https://www.kaggle.com/learn/python – Applied Python Projects
- ✧ https://www.w3schools.com/python – Python Basics and Tutorials
- ✧ https://www.analyticsvidhya.com – Business Analytics with Python
- ✧ https://scikit-learn.org – Official Documentation
- ✧ https://www.coursera.org/specializations/python-data-analysis
- ✧ https://towardsdatascience.com – Practical Data Science Blogs

Course Outcomes

By the end of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of Python fundamentals, data handling with libraries like Pandas, visualization techniques, descriptive and predictive analytics, machine learning models, and ethical considerations in business analytics.
- **CO2:** Interpret and relate Python programming constructs to data preprocessing, visualization of key performance indicators, the functionality of machine learning models, and ethical governance in business analytics applications.

- **CO3:** Apply Python libraries and their functions to perform data cleaning, create data visualizations and dashboards, and implement descriptive and machine learning models for solving business problems.
- **CO4:** Analyze data using exploratory techniques, evaluate the output of predictive and machine learning models, and interpret their business implications while considering ethical and governance frameworks.
- **CO5:** Evaluate the performance of different machine learning models and data visualization strategies to select the most suitable approach for generating actionable business insights and automation.
- **CO6:** Develop a complete business analytics solution using Python, from data preprocessing and visualization to building and interpreting machine learning models, while adhering to ethical data governance principles.

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	3	2
CO2	3	3	2	2	2	3	2
CO3	3	3	2	3	2	3	2
CO4	3	3	2	2	2	3	2
CO5	3	3	3	2	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25030 Supply Chain Concepts and Planning L T P C
3 0 0 3

Course Objectives:

This course aims to provide students with an in-depth understanding of supply chain dynamics across service and manufacturing sectors, emphasizing strategic integration and performance enhancement. Students will explore critical drivers of supply chain performance, forecasting methodologies, and technology-enabled planning systems. The course also focuses on aligning supply chain strategies with customer demands, forecasting accuracy, sales and operations planning (S&OP), and enterprise-level resource scheduling. Through case-based learning and analytical tools, learners will develop the ability to critically evaluate and design supply chain solutions in line with digital transformation trends.

Foundations of Supply Chain Concepts

Service and manufacturing supply chain dynamics – Evolution of supply chain management – Multiple views and flows in SCM – Characteristics of service and manufacturing supply chains – Supply chain performance measures – Differentiation and responsiveness – Bullwhip effect.

Supply Chain Processes and Strategic Approaches

Integrated supply chain design – Customer relationship process – Order fulfillment process – Supplier relationship process – SCM strategies: mass customization, lean, agile – Strategic focus: outsourcing, offshoring – Virtual supply chains – Resilient and sustainable supply chains.

Performance Drivers and Forecasting Techniques

Drivers of supply chain performance – Logistics drivers (location, inventory, transportation) – Cross-functional drivers (information, sourcing, pricing) – Introduction to forecasting – Forecasting system framework – Judgment methods (Surveys, Delphi, Technology forecasting) – Causal methods (linear/non-linear regression, econometrics) – Time series (ARMA, exponential smoothing, Box-Jenkins) – Collaborative Planning Forecasting & Replenishment (CPFR).

Sales and Operations Planning (S&OP)

Overview of S&OP – Objectives and benefits – Decision contexts – Phases and cycles in S&OP – Integration with supply chain and Business strategy – Decision support tools – Role of analytics and AI in S&OP.

Resource Planning and Enterprise Systems

Enterprise Resource Planning (ERP) – Planning and control systems for manufacturing – Materials Requirement Planning (MRP I & II) – Theory of Constraints (Drum-Buffer-Rope) – Inventory visibility – Integration of planning systems across functions.

Scheduling and Optimization in SCM

Scheduling in services and manufacturing – Demand scheduling – Workforce scheduling – Advanced planning systems (APS) – Real-time scheduling – Digitization and automation in scheduling – Case studies on scheduling tools and optimization in SCM.

References:

1. Chopra, S., & Meindl, P. (2020). Supply Chain Management: Strategy, Planning, and Operation, 7th Edition. Pearson.
2. Shah, J. (2016). Supply Chain Management: Text and Cases. Pearson Education.
3. Chandrasekaran, N. (2010). Supply Chain Management. Oxford University Press.
4. Sahay, B. S. (2001). Supply Chain Management for the 21st Century. Macmillan India.
5. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E., with Shankar, R. (2022). Designing & Managing the Supply Chain: Concepts, Strategies and Case Studies, 4th Edition. McGraw-Hill.

E-Resources:

- ✧ MIT Open Course Ware – Logistics & Supply Chain Management: https://ocw.mit.edu
- ✧ Coursera – Supply Chain Management Specialization (Rutgers): https://www.coursera.org/specializations/supply-chain-management

- ✧ NPTEL Online Course: Supply Chain Management – https://nptel.ac.in/courses/110/107/110107081/
- ✧ SCM World Reports – https://www.scmworld.com
- ✧ Harvard Business Review – SCM Case Studies – https://hbr.org

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of supply chain dynamics, strategic processes, performance drivers, sales and operations planning (S&OP), enterprise resource planning (ERP) systems, and scheduling and optimization techniques.
- **CO2:** Interpret and relate supply chain foundations, strategic design, performance drivers and forecasting, S&OP frameworks, resource planning systems, and scheduling to understand their integrated role in achieving competitive advantage.
- **CO3:** Apply forecasting methodologies, S&OP principles, resource planning tools like MRP, and scheduling techniques to design and manage integrated and responsive supply chain solutions.
- **CO4:** Analyze supply chain processes, performance drivers, forecasting accuracy, S&OP outcomes, resource planning systems, and scheduling optimizations to diagnose inefficiencies and assess alignment with strategic goals.
- **CO5:** Evaluate various supply chain strategies, forecasting methods, S&OP frameworks, resource planning systems, and scheduling tools to assess their impact on operational efficiency and business performance.
- **CO6:** Develop a holistic supply chain strategy by integrating an understanding of foundations, strategic processes, performance drivers, S&OP, resource planning, and optimization to enhance responsiveness and sustainability.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	2	2	-	3	2
CO3	3	3	3	2	1	3	3
CO4	2	2	3	3	-	3	3
CO5	3	2	2	2	2	2	3
CO6	2	3	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25031	Sourcing and Supply Management	L T P C
		3 0 0 3

Course Objectives:

This course aims to impart a comprehensive understanding of strategic sourcing and purchasing within supply chain management. It emphasizes contemporary sourcing practices, supplier evaluation, global sourcing strategies, cost management tools, and supplier performance metrics. The course also explores sustainability, ethical procurement, and technology-driven trends such as e-sourcing and supply analytics. Through real-time case studies and simulations, students will develop practical capabilities to manage contracts, negotiate effectively, and build a world-class supplier base.

Fundamentals of Purchasing and Supply Chain Management

The purchasing process – Policies and procedures – Supply management integration for competitive advantage – Organizational structure and roles – Interfacing with internal functions – Impact of procurement on overall supply chain effectiveness.

Strategic Sourcing and Supplier Development

Commodity strategy development – Supplier selection criteria – Supplier evaluation and onboarding – Supplier quality management – Developing and managing supplier relationships – Creating a world-class global supplier base – Strategic vs tactical sourcing.

Sourcing Processes, Cost, and Contract Management

Strategic cost management – Cost breakdown and total cost of ownership (TCO) – Tools for supply chain analysis – Supplier negotiation techniques – Conflict resolution – Contract management principles – Procurement law and ethical sourcing.

Supplier Performance and Technology in Procurement

Performance evaluation metrics – Supplier scorecards – Strategies for managing and improving performance – Purchasing services vs materials – Role of information systems in sourcing – E-sourcing tools and procurement analytics.

Sustainability and Future Trends in Sourcing

Green procurement and sustainable sourcing – Circular supply chains – Lean procurement – Emerging sourcing trends – Material substitution and innovation – Supplier diversity and inclusive sourcing practices.

Industry Practices and Case Applications

Global sourcing strategies in sectors like automotive, pharma, and electronics – Benchmarking best practices – Industry-specific procurement policies – Public vs private sector sourcing – Live case studies and simulations.

References:

1. Monczka, R., Handfield, R., Giunipero, L., & Patterson, J. (2020). Purchasing and Supply Chain Management, 6th Edition. Cengage Learning.
2. Benton, W. C. (2014). Purchasing and Supply Chain Management, 3rd Edition. McGraw-Hill.
3. Burt, Dobbler, Starling (unknown year). World-Class Supply Chain Management, 7th Edition. McGraw-Hill Education.
4. Sahay, B. S. (2001). Supply Chain Management for the 21st Century. Macmillan.
5. Lysons, K., & Farrington, B. (2020). Procurement and Supply Chain Management, 10th Edition. Pearson.

E-Resources:

- ✧ CIPS (Chartered Institute of Procurement & Supply): https://www.cips.org
- ✧ MIT Supply Chain Labs: https://ctl.mit.edu
- ✧ Coursera – Global Procurement & Sourcing Specialization: https://www.coursera.org
- ✧ NPTEL Online Course – Purchasing and Materials Management: https://nptel.ac.in
- ✧ Harvard Business Review – Procurement Insights: https://hbr.org

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of purchasing fundamentals, strategic sourcing, cost and contract management, supplier performance metrics, sustainability trends, and global sourcing practices.
- **CO2:** Interpret and relate the purchasing process, strategic sourcing frameworks, cost management techniques, supplier performance evaluation, sustainable procurement, and industry-specific policies to understand their integrated role in supply management.
- **CO3:** Apply strategic sourcing strategies, cost analysis tools, negotiation techniques, and procurement technologies to manage supplier relationships and contracts in diverse business environments.
- **CO4:** Analyze purchasing policies, supplier selection criteria, performance metrics, sustainability initiatives, and global sourcing strategies to diagnose procurement challenges and identify opportunities for improvement.
- **CO5:** Evaluate different strategic sourcing models, cost management approaches, supplier performance, sustainability trends, and global best practices to make informed decisions for a world-class supplier base.
- **CO6:** Develop a comprehensive sourcing strategy by integrating knowledge of purchasing fundamentals, supplier development, cost management, technology, sustainability, and industry practices to achieve competitive advantage.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%

Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

Co	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	-	3	3
CO3	3	2	3	2	1	3	2
CO4	3	3	2	3	2	3	3
CO5	2	3	2	2	2	2	3
CO6	3	2	3	3	1	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25032 **Supply Chain Inventory Management** **L T P C**
3 0 0 3

Course Objectives:This course aims to equip students with both foundational and advanced models of inventory management in supply chains. It provides insights into key inventory metrics, modern inventory models, safety stock strategies, and inventory risk pooling techniques. The course explores integrated inventory optimization, vendor-managed inventory, and the impact of inventory on financial performance. Students will analyze industry best practices and modern initiatives such as CPFR and reverse logistics, gaining the skills to address real-world supply chain inventory challenges through case-based learning and analytical tools.

Fundamentals of Inventory in Supply Chains

Inventory role in supply chains – Cash-to-cash cycle time – Inventory as a measure of working capital – Inventory turnover ratio – Review of Q and P models – Comparision - Aggregation and cycle stock concepts – Coordinated ordering of multiple SKUs.

Inventory Models and Safety Stock

Q-models and P-models under uncertainty – Safety stock with lead time and demand variability – Short-term discounting, forward buying – Periodic review systems – Comparison of fixed order and fixed interval models.

Strategies for Inventory Management

Single-period inventory models – Inventory challenges in fashion and seasonal supply chains – Postponement strategies – Risk pooling: substitution, specialization, information pooling – Case studies: Zara, Reebok, NFL.

Inventory Optimization and Performance Metrics

Distribution Resource Planning (DRP) – Integration of inventory with transportation – Vendor Managed Inventory (VMI) – Product availability: fill rates, order cycle service levels – Stockout and service trade-offs.

Emerging Trends and Technology in Inventory Management

Collaborative Planning, Forecasting, and Replenishment (CPFR) – Efficient Consumer Response (ECR) – Quick Response (QR) systems – Inventory in reverse logistics and remanufacturing – Digital inventory systems.

Best Practices and Industry Applications

Inventory reduction strategies – Inventory management in retail, FMCG, e-commerce, automotive – Technology platforms in inventory control – IoT, RFID, real-time dashboards – Benchmarking global practices.

References:

1. Chopra, S., & Meindl, P. (2020). Supply Chain Management: Strategy, Planning, and Operation, 7th Edition, Pearson.
2. Shah, J. (2016). Supply Chain Management: Text and Cases, Pearson Education India.
3. Chandrasekaran, N. (2010). Supply Chain Management, Oxford University Press.
4. Sahay, B. S. (2001). Supply Chain Management for the 21st Century, Macmillan Education.
5. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2022). Designing & Managing the Supply Chain: Concepts, Strategies and Case Studies, 4th Edition, McGraw-Hill.

E-Resources:

- MIT Center for Transportation & Logistics: https://ctl.mit.edu
- Coursera – Inventory Analytics (Rutgers): https://www.coursera.org
- NPTEL – Supply Chain and Logistics Management: https://nptel.ac.in
- CII Supply Chain Management Reports: https://www.cii.in
- Supply Chain Brain – Inventory Planning: https://www.supplychainbrain.com

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of inventory fundamentals, models under uncertainty, strategic management techniques, optimization methods, emerging technologies, and best practices across various industries.
- **CO2:** Interpret and relate the financial impact of inventory, the assumptions of various inventory models, the rationale for risk pooling, the function of VMI systems, and the role of digital technologies to understand the end-to-end inventory management process.
- **CO3:** Apply inventory models, safety stock calculations, postponement strategies, and distribution resource planning (DRP) to optimize inventory levels and enhance service performance.

- **CO4:** Analyze inventory's impact on working capital, the trade-offs between fixed order and fixed interval models, the effectiveness of risk pooling, and the benefits of VMI to diagnose supply chain inefficiencies.
- **CO5:** Evaluate various inventory models, postponement strategies, product availability metrics, and collaborative systems like CPFR to make informed decisions for inventory optimization and reduction.
- **CO6:** Develop a comprehensive inventory management strategy by integrating knowledge of inventory fundamentals, models, optimization, emerging technologies, and best practices to achieve operational and financial excellence.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	1	3	3
CO3	3	2	2	2	-	3	3
CO4	2	3	2	3	2	3	3
CO5	2	3	3	3	1	3	2
CO6	3	3	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25033 **Supply Chain Information System** **L T P C**
3 0 0 3

Course Objectives:

This course is designed to provide a comprehensive understanding of digital systems and enterprise applications that drive efficiency in logistics and supply chains. It focuses on e-SCM frameworks, communication networks, stakeholder integration, enterprise information systems, and system development methodologies. The course explores the latest technological advancements, including supply chain visibility, event management, and decision support systems, and enables students to gain practical knowledge of IT-enabled supply chain operations, integration strategies, and infrastructure management for real-time decision-making.

Introduction to e-SCM and Digital Communication

Overview of e-SCM – e-SCM framework – Key success factors and benefits – Strategic information positioning and linkage – Communication networks in logistics – EDI (Electronic Data Interchange) – Telecommunication networks in SCM – Data security and Internet-enabled SCM models.

Enterprise Information Systems and Architecture

Overview of Enterprise Information Systems – Information architecture – Information functionality and principles – Classification of enterprise systems – Framework for SCM information – Review of leading enterprise application packages – Benefits and challenges in ERP integration.

Systems Development in SCM Context

Key stakeholders in SCM information systems – Logistics system design – Enterprise architecture and systems development life cycle (SDLC) – Methodologies: agile, waterfall, DevOps – Custom vs. off-the-shelf system models – Data modeling and infrastructure design.

Deployment and Infrastructure Management

Deployment planning – IT operations management – Infrastructure lifecycle – Portfolio, program and project management – Risk and value management in system implementation – Change management and training protocols.

Information Integration and Decision Support

Enterprise application integration – Data flow across logistics platforms – Supply chain visibility and event management – Planning and design for information systems – DSS (Decision Support Systems) in SCM – Real-time alerts, dashboards, and predictive analytics.

Emerging Technologies and Best Practices

Industry initiatives: Efficient Consumer Response (ECR), Quick Response (QR), CPFR – Inventory control through IoT/RFID – Cloud-based SCM systems – Reverse logistics integration – Benchmarking best practices and digital transformation in global supply chains.

References:

1. Bowersox, D. J., & Closs, D. J. (2000). Logistical Management: The Integrated Supply Chain Process. McGraw-Hill.
2. Ballou, R. H. (2004). Business Logistics/Supply Chain Management, 5th Edition. Pearson Education.
3. Blanchard, D. (2021). Supply Chain Management Best Practices, 3rd Edition. Wiley.
4. Chaffey, D. (2019). E-Business and E-Commerce Management, 7th Edition. Pearson.
5. Turban, E., & Volonino, L. (2017). Information Technology for Management: Advancing Sustainable, Profitable Business Growth, 10th Edition. Wiley.

E-Resources:

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

Course Outcomes
Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of e-SCM frameworks, enterprise information systems, system development lifecycles, infrastructure management, information integration, and emerging digital technologies in supply chains.
- **CO2:** Interpret and relate the principles of e-SCM, enterprise information architecture, system development methodologies, IT operations management, decision support systems, and emerging technologies to understand their role in supply chain digitalization.
- **CO3:** Apply an understanding of e-SCM frameworks, system development methodologies, and integration strategies to manage the deployment of digital systems that enhance supply chain visibility and decision-making.
- **CO4:** Analyze information architecture, system development life cycles, deployment risks, and data from decision support systems to identify opportunities for improving supply chain performance and efficiency.
- **CO5:** Evaluate various enterprise information systems, system development methodologies, infrastructure choices, and emerging technologies to assess their impact on supply chain integration and overall business strategy.
- **CO6:** Develop a digital transformation strategy for a supply chain by integrating e-SCM, enterprise systems, system development, infrastructure management, and emerging technologies while adhering to industry best practices.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	-	3	2
CO2	3	3	2	2	1	3	3
CO3	3	3	3	2	2	3	3
CO4	3	2	2	3	2	3	3
CO5	2	3	3	3	2	3	3
CO6	3	2	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25034	Warehouse Management	L T P C 3 0 0 3

Course Objectives:

This course equips students with fundamental and advanced knowledge in warehouse management by covering warehouse design, operations, inventory control, and material handling techniques. The objective is to develop student proficiency in reducing logistics costs, improving order accuracy, and enhancing service levels through strategic warehousing decisions. Emphasis is also placed on modern technologies such as RFID, barcoding, cold chain logistics, and automation systems. The course prepares students to evaluate, manage, and optimize warehousing as a key component of integrated supply chain systems.

Introduction to Warehousing and Layout Design

Overview of warehousing – Basic warehouse decisions – Types and functions of warehouses – Centralized vs. decentralized warehousing – Warehouse layout principles – Characteristics of an ideal warehouse – Storage systems – Warehousing cost analysis.

Inventory Management in Warehouses

Basic inventory concepts – Role of inventory in supply chains and competitive strategy – Independent vs. dependent demand – Inventory functions and types – Cost components – Need for inventory – JIT (Just-in-Time) in warehousing environments.

Inventory Control Techniques

Inventory control systems – ABC inventory classification – Multi-echelon systems – Distribution requirement planning (DRP) – Bullwhip effect – Application of Warehouse Management Systems (WMS) for inventory control and visibility.

Materials Handling and Agri Supply Chains

Principles of material handling – Types of material handling equipment – Conveyor systems – Performance measures – Refrigerated warehouses – Cold chain logistics – Warehousing in agricultural and perishable goods supply chains.

Modern Warehouse Technologies

Modern warehousing methods – Automated Storage and Retrieval Systems (AS/RS) – Barcoding systems – RFID technology and applications – IoT in warehousing – Advantages of smart warehouse systems.

Strategic Warehousing and Best Practices

Warehouse as a strategic function – Third-party logistics (3PL) warehousing – Cross-docking – Reverse logistics in warehouses – Benchmarking global best practices – Sustainability in warehousing – Warehouse KPIs and continuous improvement.

References:

1. Sople, V. V. (2004).Logistics Management. Pearson Education.
2. Arnold, T. (2021).Introduction to Materials Management (8th ed.). Pearson.
3. Frazelle, E. (2016).World-Class Warehousing and Material Handling (2nd ed.). McGraw-Hill Education.
4. Kapoor, S. K., & Kansal, P. (2003).Basics of Distribution Management: A Logistical Approach. Prentice Hall.
5. Blanchard, D. (2021). Supply Chain Management Best Practices (3rd ed.). Wiley.

E-Resources:

- ✧ NPTEL – Logistics and Supply Chain Management: https://nptel.ac.in
- ✧ Coursera – Supply Chain Warehousing (Rutgers University): https://www.coursera.org/learn/supply-chain-warehousing
- ✧ CII Institute of Logistics: https://ciilogistics.com
- ✧ SCM Globe – Warehouse Simulation Platform: https://www.scmglobe.com
- ✧ MHI Learning Resources: https://www.mhi.org

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of warehouse types, inventory management principles, inventory control techniques, material handling systems, modern technologies, and strategic warehousing best practices.
- **CO2:** Interpret and relate warehouse layout design, inventory strategies like JIT, control techniques like DRP, cold chain logistics, and the role of technologies like RFID to understand their integrated function in a supply chain.
- **CO3:** Apply inventory control techniques (e.g., ABC analysis), material handling principles, and Warehouse Management Systems (WMS) to optimize warehouse operations and improve inventory visibility.
- **CO4:** Analyze warehouse layout designs, inventory cost components, material handling performance, the impact of modern technologies, and the challenges of reverse logistics to identify opportunities for efficiency gains.
- **CO5:** Evaluate various warehouse layout strategies, inventory control systems, material handling equipment, modern technologies, and strategic practices to assess their effectiveness in achieving cost savings and performance goals.
- **CO6:** Develop a comprehensive warehouse management strategy by integrating knowledge of layout design, inventory control, materials handling, modern technologies, and sustainable best practices for a competitive advantage.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	1	3	3
CO3	2	3	2	2	2	2	3
CO4	3	3	3	2	2	3	3
CO5	2	3	2	3	2	3	3
CO6	3	2	3	3	1	3	3
CO7	3	2	2	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25035 Transportation and Distribution Management L T P C
3 0 0 3

Course Objectives:

This course introduces students to the fundamental concepts and practices in transportation and distribution within a supply chain. It equips students with the knowledge to design, plan, and optimize distribution networks and understand their impact on customer service and cost. The course also focuses on routing, scheduling, fleet management, carrier selection, and the application of IT tools such as Geographic Information Systems (GIS), Intelligent Transport Management Systems (ITMS), and E-commerce platforms to improve logistics efficiency. International transport, regulatory issues, and digital transformation in transportation are also explored.

Fundamentals of Distribution Management

Role of distribution in supply chain – Distribution channels and their functions – Distribution resources and operations – Key components in designing distribution networks – Advantages and disadvantages of various distribution models – Centralized vs decentralized distribution.

Distribution Network Planning and DRP

Distribution network decision-making – Strategic distribution design – Distribution Requirement Planning (DRP) – Resource allocation – Role of warehouses in distribution – Impact on lead time and customer satisfaction – Optimization of distribution cost.

Introduction to Transportation and Modes

Role of transportation in logistics – Key principles and stakeholders – Modes of transportation: road, rail, air, sea – Criteria for mode and carrier selection – Cost-service trade-offs – Routing and scheduling techniques.

Transportation Operations and Fleet Management

International transportation and trade logistics – Carrier and freight management – Fleet ownership vs outsourcing – Transportation Management Systems (TMS) – Rate negotiation and contract management – Transportation KPIs and benchmarking – Risk and compliance in transport.

Technology Applications in Transportation

Use of IT in transport logistics – Intelligent Transport Systems (ITS) – E-commerce in logistics – Automatic Vehicle Location (AVL) – Geographic Information Systems (GIS) – Real-time communication systems – Cloud-based TMS platforms.

Trends, Sustainability, and Future Directions

Recent trends in multimodal transport – Sustainable transportation – Last-mile delivery solutions – Drone logistics, EVs in freight movement – Role of AI and IoT in distribution – Future of transport & logistics in India and globally.

References:

1. Raghuram, G., & Rangaraj, A. (2000). Logistics and Supply Chain Management – Cases and Concepts. Macmillan.
2. Shah, J. (2009). Supply Chain Management: Text and Cases, Pearson Education India.
3. Chopra, S., & Meindl, P. (2020). Supply Chain Management: Strategy, Planning, and Operation, Pearson, 7th Edition
4. Rushton, A., Croucher, P., & Baker, P. (2022). The Handbook of Logistics and Distribution Management, 7th Edition. Kogan Page
5. Stroh, M. B. (2006). Practical Guide to Transportation and Logistics, 3rd Edition. Logistics Network

E-Resources:

- ✧ NPTEL – Transportation and Logistics: https://nptel.ac.in
- ✧ Coursera – Global Transportation Management (Rutgers): https://www.coursera.org
- ✧ SCM Globe Transport Simulations: https://www.scmglobe.com
- ✧ Transport Research International Documentation (TRID): https://trid.trb.org
- ✧ Ministry of Road Transport & Highways (India): https://morth.nic.in

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of distribution fundamentals, network planning, transportation modes and operations, technology applications, and future trends and sustainability in logistics.
- **CO2:** Interpret and relate distribution network design, DRP techniques, transportation modes, fleet management, technology applications, and sustainability initiatives to understand their impact on supply chain efficiency.
- **CO3:** Apply DRP techniques, routing and scheduling strategies, fleet management principles, and IT tools like GIS and TMS to optimize distribution and transportation operations.

- **CO4:** Analyze distribution network configurations, transportation mode and carrier selection, operational KPIs, and the role of IT and sustainable practices to diagnose inefficiencies and identify improvement opportunities.
- **CO5:** Evaluate distribution network designs, transportation modes and operations, the effectiveness of technology applications, and the impact of sustainability on logistics performance to make informed strategic decisions.
- **CO6:** Develop a comprehensive transportation and distribution strategy by integrating knowledge of network design, operations, technology, and sustainability to achieve cost-effective and efficient supply chain management.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	1	3	3
CO3	3	3	2	2	2	3	3
CO4	3	2	3	3	2	3	3
CO5	2	3	3	2	2	3	3
CO6	3	2	2	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25036 **Reverse and Contract Logistics** **L T P C**
3 0 0 3

Course Objectives:

This course aims to develop a comprehensive understanding of contract logistics and closed loop supply chains, focusing on industry applications in Retail, FMCG, and Automotive sectors. It enables students to explore third-party logistics (3PL) frameworks, reverse logistics operations, and value-added services. The course further highlights market dynamics, technology adoption, life cycle management, and sustainability in logistics. It equips students to analyze emerging trends, including the impact of "Make in India" initiatives on logistics infrastructure, national GDP, and sustainable economic growth.

Fundamentals of Contract Logistics and 3PL

Third-party logistics (3PL) overview – Evolution and significance of contract logistics – Strategic alliances and outsourcing models – Types of 3PL providers in Retail, FMCG, and Automotive – Integration of services – Benefits and limitations.

Closed Loop Supply Chains and Reverse Logistics

Introduction to closed loop supply chains (CLSC) – Role of reverse logistics – CLSC models and strategies – Product vs parts returns – Service-based logistics – Strategic and operational issues in CLSC – Circular economy implications.

Life Cycle and Warranty Management

Life cycle logistics – Overview of product recovery and value reclamation – Warranty and return management processes – Depot repair, refurbishing – Secondary markets – Consumer goods and auto sector case studies – Value-added service logistics.

Market Dynamics and Emerging Trends

Market trends and opportunities in Retail, FMCG, and Automobile sectors – Logistics challenges in e-commerce – Impact of digitalization – Technology in consumer goods logistics – High-tech logistics and automation – Competitive landscape analysis.

Managing Logistics Processes and Providers

Step-by-step logistics management process – Role of logistics service providers – Governance, coordination, and risk – Collaboration models – Contracting practices – Legal and ethical considerations – Indian logistics reforms.

Policy Framework and National Impact

Make in India logistics ecosystem – Infrastructure development – Impact on GDP and economic growth – Global comparisons – Integration of green logistics – Government policies and incentives – Logistics skill development and future scope.

References:

1. Shah, J. (2016). Supply Chain Management: Text and Cases, 2nd Ed., Pearson Education India
2. Manners-Bell, J. (2014). Logistics and Supply Chains in Emerging Markets, Kogan Page
3. Blumberg, D. F. (2004). Reverse Logistics & Closed Loop Supply Chain Processes, Taylor & Francis
4. Coyle, J. J., Bardi, E. J., Novack, R. A., & Gibson, B. J. (2011). Management of Transportation, 7th Ed., Cengage Learning
5. Gupta, S. M. (2013). Sustainability in Supply Chain Management Casebook, McGraw-Hill

E-Resources:

✧ NPTEL – Logistics and Supply Chain Management: https://nptel.ac.in

- ✧ Coursera – Reverse Logistics & Circular Economy: https://www.coursera.org
- ✧ WERC – Warehousing Education & Research Council: https://www.werc.org
- ✧ Make in India Official Portal: https://www.makeinindia.com
- ✧ India Logistics and Warehousing Report – Invest India: https://www.investindia.gov.in

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of contract logistics, closed loop supply chains, life cycle and warranty management, emerging market trends, logistics management processes, and national policy frameworks.
- **CO2:** Interpret and relate 3PL outsourcing models, reverse logistics strategies, value reclamation processes, digital transformation trends, provider governance, and policy impacts to understand the full scope of contract logistics.
- **CO3:** Apply an understanding of 3PL integration, product recovery, warranty management, and contracting practices to manage logistics processes in a closed loop supply chain.
- **CO4:** Analyze 3PL service integration, closed loop supply chain models, value reclamation strategies, market dynamics, and national policy impacts to diagnose logistics challenges across industries.
- **CO5:** Evaluate different contract logistics models, reverse logistics strategies, technology adoption, legal considerations, and policy incentives to make informed decisions for sustainable supply chain management.
- **CO6:** Develop a comprehensive logistics strategy by integrating knowledge of 3PL models, reverse logistics, emerging trends, process management, and national policy frameworks to achieve sustainable and competitive advantage.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	2	3	3
CO3	2	3	2	2	1	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO4	3	3	2	2	2	3	3
CO5	2	2	3	3	1	3	3
CO6:	2	2	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25037 **Air Cargo Management** **L T P C**
3 0 0 3

Course Objectives :

This course provides students with comprehensive insights into the structure, operations, and regulatory aspects of air cargo logistics. It emphasizes air freight management, shipment planning, customs documentation, DG cargo handling, and the application of international frameworks such as IATA and FIATA. Through industry-focused modules, learners will understand air cargo economics, logistics integration, and technology in cargo hubs like Dubai Cargo Village. The course is designed to prepare students for professional roles in freight forwarding, customs compliance, customer service, and air logistics operations.

Fundamentals of Air Cargo Logistics

Introduction to air cargo – Ground handling agencies – Types of aircraft and cargo configurations – Advantages and economics of air shipments – Handling sensitive cargo – Industry do’s and don’ts – Role of airports in air freight logistics.

Air Cargo Operations and Documentation

Freighting methods – Volume vs. weight-based freight calculation – Air cargo consolidation – Export and import documentation – Role of freight forwarders and customs brokers – E-air waybills (e-AWB).

Regulatory Bodies and Airway Bill Systems

Introduction to FIATA and IATA – History, structure, and mission of IATA – Freight pricing and route planning – Licensing and regulation of freight agents – Scheduled carriers and capacity allocation – Legal framework for air cargo movements.

Cargo Villages and Regional Hubs

Dubai Cargo Village (DCV) case study – Infrastructure, location, and operations – Equipment used and handling systems – Multimodal freight operations – Sea-air cargo benefits – Cost-effectiveness of Dubai-based air freight routes.

Dangerous Goods (DG) Handling in Air Cargo

Classification of DG cargo – ICAO and IATA DG regulations – Labeling and packaging standards – Samples of DG labels – Safety compliance in air cargo – Training and certification requirements – Handling radioactive, chemical, and biohazard goods.

Trends, Technology, and Policy Integration

Digitization in air cargo – AI and IoT in freight management – ULD tracking and RFID – Sustainability in air cargo – Air freight trends in e-commerce – India's civil aviation cargo policy – Customs automation and global trade facilitation.

References:

1. Chang, Y. S. (2026). Air Cargo Management. CRC Press.

2. Taylor, H. S. (2000). Air Transport Logistics. CRC Press.

3. Zhu, X. C. X. (2006). Introduction to Air Cargo Management – Aviation Logistics. Southeast University Press.

4. Smith, P. S. (2004). Air Freight: Operations, Marketing and Economics. Kluwer Academic.

5. Blanchard, D. (2021). Supply Chain Best Practices (3rd ed.). Wiley.

E-Resources:

- ✧ IATA Cargo & Logistics Portal: https://www.iata.org/en/programs/cargo/
- ✧ FIATA Documentation Standards: https://fiata.org
- ✧ DG Online Training (IATA): https://www.iata.org/en/training/subject-areas/dgr/
- ✧ NPTEL – Logistics and Supply Chain Management: https://nptel.ac.in
- ✧ Ministry of Civil Aviation (India): https://www.civilaviation.gov.in

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of air cargo fundamentals, operational documentation, regulatory frameworks, regional hubs, dangerous goods (DG) handling, and emerging trends and policies in air logistics.
- **CO2:** Interpret and relate the economics of air shipments, air waybill systems, IATA/FIATA regulations, hub infrastructure, DG handling protocols, and the role of digitization to understand their interplay in a global air cargo network.
- **CO3:** Apply freight calculation methods, air cargo documentation standards, regulatory guidelines, and safety procedures for DG to manage operational tasks within air freight logistics.
- **CO4:** Analyze air cargo economics, the roles of various stakeholders, the operational efficiency of cargo hubs, DG handling regulations, and the impact of technology to diagnose challenges and opportunities in the industry.

- **CO5:** Evaluate different air cargo consolidation strategies, the operational advantages of regional hubs, DG handling compliance, and the business case for adopting new technologies and sustainable practices to make informed decisions.
- **CO6:** Develop a comprehensive air cargo logistics strategy by integrating knowledge of fundamentals, documentation, regulations, hub operations, DG handling, and future trends and policies to optimize global trade.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	2	3	3
CO3	3	2	2	2	1	3	3
CO4	3	3	3	2	1	3	3
CO5	2	3	3	3	2	3	3
CO6	3	2	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25038 Containerization and Allied Business L T P C
3 0 0 3

Course Objectives:

This course provides students with an in-depth understanding of containerization, its evolution, operational intricacies, and the Business landscape of global container shipping. It emphasizes freight calculations, terminal operations, leasing mechanisms, multimodal integration, and container tracking systems. Students will explore inland container depots (ICDs), container freight stations (CFS), and multimodal logistics strategies, alongside modern issues such as imbalance management and equipment leasing. The course aims to develop managerial capabilities to optimize container use in global trade.

Foundations of Containerization and Maritime Transport

Introduction to liner shipping – History and emergence of containerization – Malcolm McLean and containerization revolution – Generations of container ships – Unitization concepts – Container types, specifications, and cargo compatibility.

Freight Structures and Container Sizing

Sea freight classifications – FCL and LCL cargo concepts – Pricing strategies for FCL/LCL – Slot utilization methods – Fleet size optimization – Multi-port LCL consolidation strategies – Impact of trade routes on container deployment.

Container Terminal Operations and ICDs

Containerisation: Concept, Classification, Benefits and Constraints, Container terminal Business-World's leading container terminals and location characteristics - container terminal infrastructure - container terminal productivity and profitability-Inland container Depots(ICD)Roles and functions - Container Freight Stations(CFS),Clearance at ICD, CONCOD,ICD's under CONCOD, Charting: Kinds of Charter, Charter Party and Arbitration.

Container Leasing, Repair and Tracking

Container manufacturing trends – Leasing models: types and commercial terms – Maintenance and repair practices – Container interchange agreements – Container tracking technologies and GPS/RFID – Regulatory compliance in leasing.

Multimodal Logistics and Alternative Uses

Multimodal transport concepts – Carriage of shipper-owned containers (SOC) – Insurance for containers – Reuse of used containers – Container imbalance issues and strategies – Marketing of used containers – Global multimodal practices.

Strategic and Emerging Trends

Trends in smart containers and IoT – Blockchain in container tracking – Role of AI in route optimization – Digital freight platforms – India's multimodal logistics policy – Infrastructure initiatives (PM Gati Shakti, Sagarmala) – Public-private partnerships in port development.

References:

1. Levinson, M. (2008). The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger. Princeton University Press.
2. Hariharan, K. V., & others (2015). Containerisation, Multimodal Transport & Infrastructure Development in India, 6th ed., Shroff Publishers.
3. Lee, C.-Y., & Meng, Q. (Eds.). (2015). Handbook of Ocean Container Transport Logistics, Springer.
4. Coyle, J. J., Bardi, E. J., Novack, R. A., & Gibson, B. J. (2011). Management of Transportation, 7th ed., Cengage Learning.
5. United Nations Conference on Trade and Development (UNCTAD). Review of Maritime Transport, Annual Reports.

E-Resources:

- ✧ World Shipping Council – https://www.worldshipping.org
- ✧ Container Shipping Insights (Drewry) – https://www.drewry.co.uk
- ✧ FIATA e-learning on Containerization – https://fiatafoundation.com
- ✧ NPTEL – Maritime and Port Logistics – https://nptel.ac.in
- ✧ Indian Ministry of Ports, Shipping, and Waterways – https://shipmin.gov.in

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of containerization fundamentals, freight structures, terminal operations, leasing models, multimodal logistics, and strategic trends and policies in container management.
- **CO2:** Interpret and relate container types and specifications, FCL/LCL pricing, terminal productivity, container leasing and tracking, multimodal transport concepts, and digital platforms to understand their integrated role in global trade.
- **CO3:** Apply sea freight pricing, container sizing strategies, ICD/CFS functions, and container tracking technologies to manage container operations in a global supply chain.
- **CO4:** Analyze container freight structures, terminal infrastructure, leasing agreements, container imbalance issues, and emerging technologies to diagnose operational challenges in container logistics.
- **CO5:** Evaluate different container types, terminal operations, leasing strategies, multimodal transport options, and the role of national policies to make informed decisions for container logistics.
- **CO6:** Develop a comprehensive container logistics strategy by integrating knowledge of containerization fundamentals, pricing, terminal operations, leasing, multimodal transport, and emerging technologies to achieve sustainable and competitive advantage

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	1	3	3
CO3	3	3	3	2	1	3	3
CO4	3	3	2	2	2	3	3
CO5	2	3	3	3	2	3	3
CO6	3	2	3	2	2	3	3
CO7	3	2	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25039 **EXIM Management** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide students with a comprehensive understanding of export-import (EXIM) operations, global trade frameworks, documentation practices, logistics coordination, and payment mechanisms. It emphasizes the regulatory environment, risk management in international trade, and the role of service providers and customs agencies. Students will gain practical exposure to INCOTERMS, UCP 600, international contracts, foreign trade policy, and EXIM finance. This knowledge equips students to handle operational, legal, and strategic challenges in international Business.

Global Trade and Institutional Framework

Role of international trade in economic development – Evolution of India's EXIM policy – Role of DGFT and Ministry of Commerce – Key features of the Foreign Trade Policy – Global trade flows – Contract of international sale of goods – INCOTERMS 2020 – Export control regulations.

Export Strategy and Promotion

Export marketing strategies – Market selection and entry – Export promotion councils and incentive schemes – Export documentation process – Negotiation of export contracts – Cargo insurance – Export houses and trading houses – Role of logistics in exports.

Import Operations and Documentation

Types of imports – Import licensing and regulatory clearance – Import documentation – Bill of entry and bill of lading – Customs clearance – Duties and exemptions – Industrial and trading imports – Logistics role in import cargo handling.

Foreign Trade Financing and Risk Management

Modes of payments – Letter of Credit (L/C) structure and types – LOU and UCP 600 guidelines – Shipping documents and bank negotiations – Payment risks in EXIM – Export and import financing options – Role of EXIM Bank and ECGC – Forex regulations and FEMA overview.

Customs, Agencies, and Clearance

Customs regulations and clearance procedures – Role of service providers: CHAs, freight forwarders, liners, warehousing operators, surveyors, pest control and quarantine agencies – Role of Ports and CFS – Documentation audit and verification by Customs – Port community systems.

Technology and Policy Trends in EXIM

Digital documentation and e-Sanchit – Blockchain in trade finance – DGFT's online systems and ICEGATE – Role of WTO, FTA, and regional trade agreements – Recent EXIM policy updates – Make in India, Start-up India, and their impact on trade facilitation – Emerging global trade corridors.

References:

1. Shah, J. (2016). Supply Chain Management: Text and Cases, 2nd Ed. Pearson Education India
2. Manners-Bell, J. (2014). Logistics and Supply Chains in Emerging Markets. Kogan Page
3. Blumberg, D. F. (2005). Reverse Logistics & Closed Loop Supply Chain Processes. Taylor & Francis
4. Coyle, J. J., Bardi, E. J., Novack, R. A., & Gibson, B. J. (2011). Management of Transportation, 7th Ed. Cengage Learning
5. Gupta, S. M. (2013). Sustainability in Supply Chain Management Casebook. McGraw-Hill

E-Resources:

- ✧ Directorate General of Foreign Trade (DGFT): https://www.dgft.gov.in
- ✧ ICEGATE – Indian Customs EDI Gateway: https://www.icegate.gov.in
- ✧ EXIM Bank of India: https://www.eximbankindia.in
- ✧ World Trade Organization (WTO): https://www.wto.org
- ✧ NPTEL – International Business Environment: https://nptel.ac.in

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of global trade frameworks, export/import strategies and documentation, foreign trade financing, customs clearance procedures, and technology and policy trends in EXIM.
- **CO2:** Interpret and relate global trade policies (e.g., INCOTERMS) to export and import documentation, foreign trade financing, customs regulations, and the use of digital systems for trade facilitation.
- **CO3:** Apply an understanding of export/import strategies, documentation requirements, trade finance instruments, and customs clearance procedures to execute a complete international trade transaction.
- **CO4:** Analyze foreign trade policies, export/import operations, payment risks, customs regulations and the role of various agencies, and emerging technologies to diagnose challenges and opportunities in international trade.
- **CO5:** Evaluate different export/import strategies, trade finance options (e.g., L/C), customs procedures, and the effectiveness of technology and policy trends to make informed decisions in managing EXIM operations.
- **CO6:** Develop a comprehensive EXIM management strategy by integrating knowledge of global trade frameworks, operational processes, finance, customs, and emerging technologies to mitigate risks and achieve business goals.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	2	2	3	3
CO4	3	2	3	3	2	3	3
CO5	2	3	2	2	2	3	3
CO6	3	2	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25040	Fundamentals of Shipping	L T P C 3 0 0 3

Course Objectives:

This course aims to introduce students to the foundational principles of global shipping operations and management. It equips students with insights into liner and tramp shipping, dry and liquid bulk cargoes, ship types, port agency functions, and maritime organizations. The course explores shipbuilding and repair logistics, freight calculations, ship registration, and marine insurance practices. Students are also introduced to international shipping regulations, documentation, and shipping market indices, enabling them to function effectively in the maritime logistics industry.

Introduction to Shipping and Maritime Institutions

Role of shipping in international trade – Types of ships (bulk, tankers, container, Ro-Ro, LNG) – Types of cargo – Key global maritime organizations (IMO, BIMCO, ICS, IACS, IAPH) – Ship registration and classification – Flag states and port states.

Liner Shipping and Cargo Operations

Structure of liner shipping Business – Types of liner services – Container lines and services – Breakbulk, Ro-Ro, and project cargo handling – Freight rate systems – Liner cargo documentation (BL, manifest) – Liner agency responsibilities.

Dry Bulk Shipping and Chartering

Overview of dry bulk cargo markets – Major dry bulk ports and commodities – Types of bulk carriers – Chartering types: voyage, time, bareboat – Dry bulk indices (e.g., Baltic Dry Index) – Port agency services and their commercial role.

Tanker and Liquid Bulk Operations

Tanker Business and wet bulk cargoes – Major tanker ports – Tanker types and gas carriers – Tanker freighting via Worldscale – Factors affecting the tanker market – Marine pollution control conventions (MARPOL) – Oil spill mitigation.

Shipbuilding, Repair and Maritime Support Services

Shipbuilding industry overview – Ship design and specification trends – Repair and maintenance – Role of ship management companies – Ports, inland terminals, and CFS – Marine insurance providers and financing institutions – Logistics infrastructure in India.

Strategic Trends in Global Shipping

Trends in maritime digitization – Smart shipping and autonomous ships – Indian shipping policy and Sagarmala – Cabotage laws – Maritime cyber security – Green shipping practices – Maritime decarbonization and net-zero strategies.

References:

1. Branch, A. E., & Robarts, M. (2014). Branch's Elements of Shipping (9th ed.). Routledge.
2. Brodie, P. (2014). Commercial Shipping Handbook (3rd ed.). Routledge / Informa Law.
3. United Nations Conference on Trade and Development (UNCTAD). Review of Maritime Transport, Annual Report.
4. Coyle, J. J., Bardi, E. J., Novack, R. A., & Gibson, B. J. (2011). Management of Transportation (7th ed.). Cengage Learning.
5. Branch, A. (2020). Maritime Economics and Shipping Management. Springer.

E-Resources:

- ✧ IMO – International Maritime Organization: https://www.imo.org
- ✧ MarineTraffic – Vessel Tracking and Ports: https://www.marinetraffic.com
- ✧ UNCTAD Maritime Reports: https://unctad.org/topic/transport-and-trade-logistics
- ✧ Baltic Exchange Indices: https://www.balticexchange.com
- ✧ NPTEL – Port and Shipping Management: https://nptel.ac.in

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of maritime institutions, liner and bulk shipping operations, chartering, shipbuilding and repair logistics, and strategic trends and policies in global shipping.
- **CO2:** Interpret and relate the roles of maritime organizations, liner and tramp shipping documentation, bulk freight indices (e.g., BDI), the Worldscale system, and the functions of maritime support services to understand their integrated role in global trade.
- **CO3:** Apply an understanding of liner and bulk cargo operations, chartering principles, tanker pricing, and shipbuilding logistics to manage and coordinate shipping activities.
- **CO4:** Analyze liner and bulk freight markets, the impact of regulations like MARPOL, the operational role of maritime support services, and the effects of digitization and policy on the shipping industry.
- **CO5:** Evaluate different shipping strategies, chartering types, shipbuilding and repair trends, the effectiveness of support services, and the impact of sustainability policies to make informed decisions for maritime operations.
- **CO6:** Develop a comprehensive shipping strategy by integrating knowledge of fundamentals, liner and bulk operations, maritime support services, and strategic trends to achieve competitive advantage in the global maritime industry.

Internal Assessment Methodology (100 Marks) :

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO – PO – PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	-	3	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO2	3	3	3	2	1	3	3
CO3	3	2	3	2	2	3	3
CO4	3	2	2	2	1	3	3
CO5	2	3	3	3	2	3	3
CO6	3	2	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25041 **Port and Terminal Management** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide comprehensive knowledge on the functioning and strategic importance of ports and terminals in global trade and logistics. It enables students to understand port operations, infrastructure, performance metrics, and port marketing strategies. The course integrates contemporary practices including digitalization, port community systems, and port security frameworks such as ISPS code. Students will also gain insights into environmental, health, and safety considerations and the roles of various stakeholders in port governance and logistics networks.

Introduction to Ports and Terminals

Role of ports in global trade – Economic impact on regional development – Multiplier effect of port infrastructure – Types of ports (natural, manmade, riverine, estuarine) – Strategic location characteristics for port development.

Operations and Organizational Structures

Port facility design for various cargo types – Functional layout – Organizational structure in ports – Roles of Marine, Traffic, and other departments – Port service delivery models – Inter-agency coordination.

Marketing, Tariff and Stakeholder Management

Port service marketing – Tariff structure and pricing strategy – Identifying hinterland needs – Interfacing with stakeholders: ship owners, freight forwarders, truckers, barge and rail operators – Total logistics cost approach.

Port Performance and Digital Systems

Metrics for port performance: vessel turnaround time, cargo throughput, dwell time – IT requirements for performance monitoring – EDI, Port Community Systems (PCS), and digitization trends – Role of digital twin technologies.

Environmental, Health, Safety and Security

Environmental compliance in port operations – Port health and safety regulations – ISPS Code overview – Risk management and security challenges – Government and regulatory bodies in port management.

Global Trends and Future Port Models

Green ports and smart terminals – PPP in port development – Role of automation and AI – Emerging trends in port sustainability – Case studies of leading global ports (e.g., Rotterdam, Singapore, Mundra).

References:

1. Maria G. Burns, Port Management and Operations, CRC Press
2. Patrick Alderton & Giuseppe Saieva, Port Management and Operations, Lloyd's Practical Shipping Guides (Routledge)
3. H. Ligteringen & H. Velsink, Ports and Terminals, VSSD Publishers, 2012
4. Coyle, J. J., Bardi, E. J., Novack, R. A., & Gibson, B. J. (2011). Management of Transportation, 7th Ed., Cengage Learning

E-Resources:

- ✧ https://unctad.org/topic/transport-and-trade-logistics – UNCTAD Port Management Programme
- ✧ https://www.iaphworldports.org – International Association of Ports and Harbors
- ✧ https://www.porttechnology.org – Smart port technologies and insights
- ✧ https://www.maritime-executive.com – Global maritime news and trends

Course Outcomes

On completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the strategic role of ports, operational structures, marketing and tariff strategies, performance measurement, security frameworks, and global trends in port management.
- **CO2:** Interpret and relate the economic impact of ports, organizational departmental roles, stakeholder interactions, digital community systems, ISPS code compliance, and sustainability initiatives to understand their integrated function in port ecosystems.
- **CO3:** Apply port facility design principles, marketing strategies, performance metrics, and EHS/security regulations to manage operational activities within a port or terminal.
- **CO4:** Analyze port organizational structures, tariff mechanisms, performance metrics, security risks, and the impact of automation and AI to diagnose operational challenges and identify areas for improvement.
- **CO5:** Evaluate different port service delivery models, tariff strategies, digital systems (e.g., PCS), security frameworks, and green port initiatives to make informed decisions for strategic port management.

- **CO6:** Develop a comprehensive port management strategy by integrating knowledge of port functions, operations, stakeholder management, performance metrics, security, and global trends to achieve operational excellence and sustainability.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	3	2	3	1	3	2	2
CO3	2	3	2	2	3	3	3
CO4	3	3	2	3	3	2	3
CO5	2	2	3	2	3	3	3
CO6:	3	2	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25042 Infrastructure Planning, Scheduling and Control L T P C
3 0 0 3

Course Objectives:

This course aims to provide students with a comprehensive understanding of infrastructure systems in India and the global context. It covers the principles and practices of planning, scheduling, risk assessment, and control in infrastructure projects. Emphasis is placed on privatization, stakeholder management, sustainability, risk mitigation, and innovative maintenance techniques. The course also fosters analytical skills to design solutions in complex infrastructure settings while highlighting the role of digital technologies and government policies in implementation and monitoring.

Overview of Infrastructure Systems

Introduction to infrastructure - Need and importance of infrastructure in India - Overview of power sector - Overview of water supply and sanitation sector-Overview of road, rail, air and port transportation sectors-Overview of telecommunication sector-Overview of rural and urban infrastructure-Introduction to special economic zones-Organizations and players in infrastructure field -Overview of infrastructure project finance.

Privatization in Infrastructure

Privatization of infrastructure in India - Benefits of privatization-Problems with privatization Challenges in privatization of water supply projects- Challenges in privatization of power sector projects – Challenges in privatization of road transportation projects.

Risk Identification and Legal Concerns

Economic and demand risks, political risks, socio-economic risks and cultural risks in infrastructure projects -Legal and contractual issues in infrastructure projects- Challenges in construction of infrastructure projects.

Risk Mitigation and Sustainable Contracts

Planning to mitigate risk-Designing sustainable contracts-Introduction to fair process and negotiation-Negotiation with multiple stakeholders - Sustainable development- Information technology and systems for successful management.

Innovative Design and Life-Cycle Management

Innovative design and maintenance of infrastructure facilities- Modeling and life cycle analysis techniques-Capacity building and improving Government's role in implementation- Integrated framework for successful planning and management.

Digital Transformation and Global Best Practices

Digital tools in infrastructure management – Project scheduling software (Primavera, MS Project) – GIS and BIM applications – Global trends in infrastructure financing and planning – India's National Infrastructure Pipeline (NIP) – Green infrastructure and climate resilience.

References:

1. Raina, V. K. (2005). Construction Management Practice – The Inside Story. Tata McGraw Hill
2. Hudson, W. R., Haas, R., & Uddin, W. (2013). Infrastructure Management: Integrating Design, Construction, Maintenance. McGraw Hill.
3. Chandra, P. (2006). Projects – Planning, Analysis, Selection, Implementation and Review. Tata McGraw Hill.
4. Joy, P. K. (1992). Total Project Management: The Indian Context. Macmillan India
5. Feigenbaum, L. (2002). Construction Scheduling with Primavera Project Planner. Prentice Hall India Infrastructure Publishing Ltd. (2021). India Infrastructure Report 2021. India Infrastructure Publishing Ltd.
6. Central Public Health & Environmental Engineering Organisation (CPHEEO), Ministry of Urban Development, Govt. of India. Manual on Sewerage and Sewage Treatment (Part A/B/C Management, 2012)
7. High Power Expert Committee (HPEC). Report on Indian Urban Infrastructure and Services, March 2011
8. National Highway Authority of India (NHAI). Manual (Guidelines), 1988

E-Resources:

- ✧ Ministry of Road Transport and Highways: https://morth.nic.in
- ✧ India Infrastructure Finance Company: https://www.iifcl.in
- ✧ World Bank Infrastructure Data: https://ppi.worldbank.org

- ✧ CPHEEO Guidelines: http://cpheeo.gov.in
- ✧ ISRO Bhuvan GIS Platform: https://bhuvan.nrsc.gov.in
- ✧ National Infrastructure Pipeline Portal: https://nipinvindia.gov.in

Course Outcomes

After completion of this course, the learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of infrastructure systems, privatization models, risk identification, mitigation strategies, life-cycle management, and digital tools and global best practices.
- **CO2:** Interpret and relate the role of infrastructure to privatization challenges, legal risks to sustainable contracts, and innovative design and maintenance techniques to digital transformation.
- **CO3:** Apply knowledge of privatization benefits, risk mitigation frameworks, stakeholder negotiation methods, and project scheduling software to plan and manage infrastructure projects.
- **CO4:** Analyze the challenges of privatization, economic and legal risks, the efficacy of sustainable contracts, life-cycle management techniques, and the application of digital tools to assess project viability.
- **CO5:** Evaluate various privatization models, risk mitigation strategies, innovative design and maintenance practices, and the impact of digital technologies to make informed decisions for infrastructure development.
- **CO6:** Develop a comprehensive plan for an infrastructure project by integrating knowledge of privatization, risk management, sustainable contracts, life-cycle management, and digital transformation to ensure long-term success and sustainability.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	-	3	2
CO2	2	3	3	2	-	2	3
CO3	3	3	2	3	1	3	3
CO4	3	2	2	2	3	3	2
CO5	3	2	3	2	2	3	2
CO6	2	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25043	Contracts and Arbitration	L T P C
		3 0 0 3

Course Objectives:

This course provides a comprehensive understanding of the legal framework governing contracts and arbitration in the construction and infrastructure sectors. It equips students with practical knowledge on tendering procedures, contract law, risk management, and dispute resolution through arbitration, mediation, and other alternate mechanisms. Students will learn how to draft, interpret, and enforce engineering contracts while navigating legal obligations. The course also incorporates global and Indian perspectives on arbitration law, including ADR mechanisms, institutional procedures, and emerging trends in construction law.

Foundations of Contracts in Engineering and Construction

Brief details of engineering contracts -Definition, types and essentials of contracts and clauses for contracts - Preparation of tender documents and contract documents - Issues related to tendering process- Awarding contract, e-tendering process - Time of performance - Provisions of contract law - Breach of contract - Performance of contracts - Discharge of a contract- Indian contract Act 1872 - Extracts and variations in engineering contracts - Risk management in contracts.

Legal Framework for the Construction Industry

Labor and industrial laws - Payment of wages act, contract labor - Workmen's compensation act - Insurance, industrial dispute act- Role of RERA

Arbitration Laws and Procedures

Background of Arbitration in India - Indian Arbitration Act 1937 - UNCITRAL model law Forms of arbitration - Arbitration agreement - Commencement of arbitral proceedings - Constitution of arbitral tribunal - Institutional procedure of arbitration -Impartiality and independence of arbitrators jurisdiction of arbitral tribunal - Interim measures - Enforcement of awards.

Mediation, Negotiation, and Conciliation

Concepts and purpose - Statutory back ground ADR and mediation rules - Duty of mediator and disclose facts - Power of court in mediation.

Judicial and Institutional Dispute Resolution

Structure of Indian Judicial - The arbitration and reconciliation ordinance 1996 -Dispute resolution mechanism under the Indian judicial system - Litigation in Indian courts - Case studies.

Case Studies and International Best Practices

Analysis of major arbitration cases in construction (e.g., NHAI, Southern Railways) – FIDIC contracts – Cross-border arbitration practices – Challenges in enforcement – Comparative arbitration systems – Evolving trends in Indian arbitration law.

References:

1. Eastern Book Company (2008). Arbitration and Conciliation Act, 1996, Latest edition: A 31st Edition (2025) is now available, updated through the Mediation Act, 2023
2. Gajaria, G. T. (1985). Laws Relating to Building and Engineer's Contracts. M. M. Tripathi Pvt. Ltd.
3. Vasavada, B. J. (1996). Engineering Contracts and Arbitration

4. International Federation of Consulting Engineers (FIDIC), (2009). FIDIC Documents,Latest versions: FIDIC now publishes editions such as the 2017 Yellow, Red, Silver Books, etc.
5. Sharma, K. (2009). Development and Practice of Arbitration in India. CDDRL, Stanford University
6. Collex, K. (1982). Managing Construction Contracts. Reston Publishing
7. Park, W. B. (1978). Construction Bidding for Projects. John Wiley
8. Namavati, R. (2013). Professional Practice. Anuphai Publications
9. American Arbitration Association (2007). Construction Industry Arbitration Rules and Mediation Procedures

E-Resources:

- ✧ Indian Judiciary ADR Portal: https://legalaffairs.gov.in
- ✧ FIDIC Contracts Database: https://fidic.org
- ✧ Indian Council of Arbitration (ICA): https://www.icaindia.co.in
- ✧ UNCITRAL Arbitration Rules: https://uncitral.un.org
- ✧ Construction Industry Development Council: https://www.cidc.in
- ✧ Law Commission of India Reports on Arbitration: http://lawcommissionofindia.nic.in

Course Outcomes

Upon successful completion, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of engineering contracts, legal frameworks (including labor laws), arbitration procedures, alternative dispute resolution (ADR), judicial systems, and international best practices in dispute resolution.
- **CO2:** Interpret and relate contract clauses to the legal framework of the construction industry, arbitration laws to ADR mechanisms, and Indian judicial processes to international case studies to understand their interconnected role in dispute resolution.
- **CO3:** Apply contract law principles, labor laws, arbitration agreements, and mediation and conciliation methods to draft engineering contracts and manage disputes effectively in a project environment.
- **CO4:** Analyze contract tendering processes, legal compliance, arbitration proceedings, ADR rules, and judicial precedents to assess risks and challenges in engineering and construction projects.
- **CO5:** Evaluate different types of contracts, legal issues, arbitration frameworks (e.g., UNCITRAL), ADR mechanisms, and international case studies to select the most appropriate dispute resolution strategy for a given context.
- **CO6:** Develop a comprehensive dispute resolution strategy by integrating knowledge of contract law, legal frameworks, arbitration, ADR, judicial systems, and international best practices to mitigate risks and ensure project success.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%

Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	-	3	2
CO2	2	3	3	2	-	2	3
CO3	3	3	2	3	1	3	3
CO4	3	2	2	2	3	3	2
CO5	3	2	3	2	2	3	2
CO6	2	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25044 Project Management for Infrastructure L T P C
3 0 0 3

Course Objectives:

This course aims to equip students with the tools and techniques necessary to plan, manage, and control infrastructure projects efficiently. It covers project classification, scheduling techniques, time-cost optimization, resource leveling, and emerging practices like Agile project management. Students will develop competencies in interpreting project life cycles, managing constraints, balancing resources, and implementing modern tools like PERT, CPM, and Gantt charts for effective decision-making. The course also explores the integration of sustainability and digital tools in infrastructure project management.

Project Fundamentals and Life Cycle

Definition of project and process – Project boundaries – Objectives and functions – Types and characteristics – Organizational styles – Project management group roles – PMO functions – Project integration – Process group interactions – Project flow and life cycle – Influencing factors – Case study.

Time Management and Scheduling Tools

Scope and task breakdown – Work Breakdown Structure (WBS) – Activity planning – Gantt charts, milestone charts, rolling wave planning – Project networks: AOA & AON – Fulkerson's rules – Critical Path Method (CPM) – 80/20 rule – Project monitoring and updating – PERT analysis – Time estimates and variability – Case study applications - Estimate time - Programming evaluation and review techniques - Event oriented network analysis.

Resource Identification and Management

Types of project resources – Men, machines, material, money, time, space – Resource smoothing (time-constrained) – Resource leveling (resource-constrained) – Optimization of utilization – Avoidance of idle resources – Case-based discussion.

Cost Optimization and Project Crashing

Direct and indirect cost types – Cost-time relationship – Project compression methods: crashing, fast-tracking, re-estimation – CPM cost model – Life cycle costing – Economic assessment – Maintenance and operation planning – Life cycle forecasting techniques.

Agile and Emerging Project Management Techniques

Agile methodology – Iterative and adaptive project management – Kanban, Scrum and hybrid approaches – Case studies on Agile in infrastructure – Overview of modern project planning software (MS Project, Primavera, Trello, JIRA).

Sustainability and Digital Integration in Projects

Sustainable development goals in project management – Green infrastructure and environmental considerations – Impact analysis – Digital dashboards and project reporting tools – Use of ERP and integrated project monitoring systems – Role of AI and IoT in infrastructure projects.

References:

1. Project Management Institute (2021). A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 7th Edition
2. Wiest, J. D., & Levy, F. K. (1994). A Management Guide to PERT/CPM. Prentice Hall India
3. Punmia, B. C., & Khandelwal, K. K. (1989). Project Planning and Control with PERT/CPM. Laxmi Publications
4. Srinath, L. S. (2008). PERT and CPM – Principles and Applications. East West Press
5. Dixon, G. (2011). "Service Learning and Integrated Collaborative Project Management," Project Management Journal.
6. Sengupta, B., & Guha, H. (1995). Construction Management and Planning. Tata McGraw Hill.
7. SangaReddi, S., & Meiyappan, P. L. (1999). Construction Management. Kumaran Publications.
8. Kerzner, H. (2017). Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 13th Edition. Wiley

E-Resources:

- ✧ PMI Global: https://www.pmi.org
- ✧ Primavera Software Resources: https://www.oracle.com/primavera
- ✧ ProjectLibre (Open-source Project Management): https://www.projectlibre.com
- ✧ Indian Project Management Forum: https://www.ipmf.in
- ✧ Agile Alliance Learning Resources: https://www.agilealliance.org
- ✧ MIT OpenCourseWare – Project Management: https://ocw.mit.edu

Course Outcomes

After completing this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of infrastructure project life cycles, scheduling techniques, resource management, cost optimization methods, emerging project management practices, and sustainability and digital integration.
- **CO2:** Interpret and relate project fundamentals to network scheduling, resource management to cost optimization, and Agile methodologies to the integration of sustainability and digital tools in infrastructure projects.
- **CO3:** Apply network-based scheduling techniques (e.g., PERT, CPM), resource leveling methods, and cost optimization tools (e.g., crashing) to manage time and resource constraints in infrastructure projects.
- **CO4:** Analyze a project's life cycle, work breakdown structure (WBS), resource allocation, cost-time relationships, and the application of Agile and digital tools to diagnose performance issues and identify solutions.
- **CO5:** Evaluate different project management approaches, resource allocation strategies, cost optimization methods, Agile methodologies, and the impact of sustainability and digital integration to make informed decisions for project success.
- **CO6:** Develop a comprehensive project management plan by integrating knowledge of project fundamentals, scheduling, resource management, cost optimization, Agile principles, and digital tools to ensure efficient and sustainable infrastructure project execution.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	-	3	2
CO2	3	3	3	3	2	3	3
CO3	3	3	3	2	3	3	2
CO4	3	2	3	2	3	3	2
CO5	2	3	2	2	2	2	3
CO6	3	2	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25045 Management of Human Resources, Safety and Quality L T P C
3 0 0 3

Course Objectives:

This course aims to provide a comprehensive understanding of human resource management, labor laws, safety practices, and quality management in the construction sector. Students will explore the application of HRM principles in construction manpower planning, safety regulations, and legal compliance. The course also focuses on accident prevention, ergonomics, and the implementation of Total Quality Management (TQM), Six Sigma, and ISO standards. Learners will gain insight into the integration of HR, safety, and quality as interdependent pillars of organizational success.

Human Resource Management in Construction

Concept, roles, and growth of HRM – Manpower planning – Line and staff functions – Recruitment, selection, induction, and training – Wage and salary administration – Disciplinary procedures – Separation processes – Functions of time office and establishment.

Labor Legislation and Legal Compliance

Overview of labor laws – Construction industry-specific provisions – Interstate migration laws – Collective bargaining – Worker participation – Grievance redressal – Enforcement agencies and judiciary – Legal provisions for women in construction.

Fundamentals of Safety Management

Need for safety in construction – Accident causes and prevention – Roles and responsibilities of stakeholders – Safety benefits – Safety policies – Tools and approaches for improving safety – Measurement of safety performance – Case examples.

Ergonomics and Safety Implementation

Application of ergonomics in construction sites – Fire prevention – Safety audit procedures – Roles of safety managers – Emergency response planning – Workplace design standards for safety and comfort.

Quality Management in Construction

Importance of quality – Elements and characteristics – Quality by design and conformance – Contractor quality control – Specifications, penalties, and incentives – Workmanship and final inspection – Documentation and traceability.

TQM, Six Sigma and ISO in Construction Projects

Total Quality Management – Six Sigma principles – ISO 14000 and 9001 – Cost of quality – Quality assurance vs. quality control – Quality audit – Integration of quality, HR, and safety for construction excellence.

References:

1. Astern Book Company (2025). Arbitration and Conciliation Act, 1996 (31st ed.), Eastern Book Company
2. Gajaria, G. T. (1985). Laws Relating to Building and Engineer's Contracts, M. M. Tripathi Pvt. Ltd.

3. Vasavada, B. J. (1996). Engineering Contracts and Arbitration, [Publisher not specified]
4. FIDIC Documents (2025). International Federation of Consulting Engineers (FIDIC), current editions via fidic.org
5. Sharma, K. et al. (2009). Development and Practice of Arbitration in India, CDDRL, Stanford University
6. Collex, K. (1982). Managing Construction Contracts, Reston Publishing
7. Park, W. B. (1978). Construction Bidding for Projects, John Wiley & Sons
8. Namavati, R. (2013). Professional Practice, Anuphai Publications
9. American Arbitration Association (2007). Construction Industry Arbitration Rules and Mediation Procedures
10. Joseph M. Juran & F. M. Gryna (2017). Quality Planning and Analysis (7th ed.), Tata McGraw Hill
11. Malik, P.L. (2023). Handbook of Labour & Industrial Law, 26th edition, Eastern Book Company

E-Resources:

- ✧ Ministry of Labour and Employment: https://labour.gov.in
- ✧ Bureau of Indian Standards (BIS): https://bis.gov.in
- ✧ National Institute of Construction Management and Research: https://www.nicmar.ac.in
- ✧ International Labour Organization: https://ilo.org
- ✧ ISO Online Library: https://www.iso.org/standards.html
- ✧ National Safety Council: https://nsc.org

Course Outcomes

Upon completion of this course, the learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of human resource management, labor legislation, safety fundamentals, ergonomics and safety implementation, quality management, and advanced quality assurance methods (TQM, Six Sigma).
- **CO2:** Interpret and relate HRM principles to labor laws, safety policies to ergonomic design, and quality control specifications to TQM, Six Sigma, and ISO standards to understand their integrated role in construction management.
- **CO3:** Apply HRM functions (e.g., manpower planning), labor laws, safety audit procedures, and quality control measures to manage a construction workforce and project operations.
- **CO4:** Analyze manpower planning strategies, legal compliance issues, accident causes, ergonomic applications, and quality management systems to diagnose deficiencies and improve project performance.
- **CO5:** Evaluate different HRM policies, legal compliance strategies, safety protocols and emergency plans, quality control measures, and the effectiveness of TQM/Six Sigma to make informed decisions for a construction organization.

- **CO6:** Develop an integrated management strategy by combining HRM principles, legal compliance, safety protocols, and quality assurance methods to achieve organizational excellence and project success in the construction industry.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	-	3	2
CO2	3	3	3	2	-	3	3
CO3	3	3	2	3	2	3	2
CO4	3	2	3	2	2	3	2
CO5	2	3	3	3	2	3	3
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25046 Disaster Mitigation and Management L T P C
3 0 0 3

Course Objectives:

This course aims to provide students with foundational and advanced knowledge of different types of disasters and their impact on built environments. It emphasizes disaster risk reduction, mitigation techniques, hazard assessment, and post-disaster rehabilitation. The curriculum covers earthquake, flood, cyclone, tsunami, landslide, and fire hazards, integrating structural safety strategies, retrofitting methods, and seismic strengthening. It also examines India's disaster management policy, quality control measures, zoning regulations, and institutional mechanisms in alignment with global frameworks.

Introduction to Hazards and Disasters

Difference between hazards and disaster -Types of disasters-Phases of disaster management - Hazards - Classification of hazards - Hazards affecting buildings - Building safety against hazards - Floods - Cyclone - Landslides -Tsunami - Fire.

Earthquake Disaster and Building Performance

Earthquake hazard map -Causes of earthquakes -Classification of earthquakes -Seismic waves - Energy release - Inertia forces - Natural period - Resonance - Damping -Seismic response of free vibration -Seismic response of damped vibration -Performance of ground and buildings in past earthquakes-Earthquake resistant measures in RC and masonry buildings - Potential deficiencies of RC and masonry buildings.

Other Natural Disasters and Protection Measures

Landslides-Landslide zoning map - Causes -Protection measures Floods -Flood zone map - Effects on buildings -Protection measures from damage to buildings -Mitigation strategies Tropical cyclones - Effects on buildings -Protection measures from damage to buildings - Tsunami -Tsunami wave characteristics -Peculiarities of tsunami deposits -Tsunami impact on coastal lines-Effects of Tsunami on built structures - Fire disaster - Causes and effects of fire disaster - Preventive mechanism .

Hazard Assessment and Structural Strengthening

Visual inspection and study of available documents -Detailed in-situ investigation planning and interpretation of results-Foundation capability -Non-structural components - Seismic strengthening of buildings –Repairs, restoration and strengthening of existing buildings - Strengthening materials -Retrofitting of load bearing wall buildings - Retrofitting of RC Buildings-RVS method of screening - RC and masonry structures -Seismic hazard assessment - Deterministic seismic hazard analysis - PSHA.

Land Use Regulations and Quality Control in Construction

Introduction-Community planning - Community contingency plan - Report building and initial awareness - Land use zoning – Construction quality control mechanisms – Quality assurance in masonry – Specification-driven compliance – Causes of poor construction quality – Inspection and material control – Organizational setup for QA/QC.

Disaster Management Policy and Institutional Framework

Disaster Management Act and policy – Institutional roles: NDMA, NDRF – Medical first response – Community contingency planning – Funding and support schemes: 13th Finance Commission, externally aided projects – Flood rescue management – Role of technology in disaster communication and coordination.

References:

1. Ahmad, A. (2003). Disaster Management: Through the New Millennium. Anmol Publications

2. Ghosh, G. K. (2006). Disaster Management. APH Publishing

3. Goel, S. L. (2006). Encyclopaedia of Disaster Management. Deep & Deep Publications

4. Singh, R. B. (2008). Disaster Management. Rawat Publications.

5. Dowrick, D. J. (1987). Earthquake Resistant Design for Engineers and Architects. John Wiley.

6. Booth, E. (1994). Concrete Structures in Earthquake Regions. Longman

7. Jaikrishna & Chandrasekaran, A. R. (1996). Elements of Earthquake Engineering. Sarita Prakashan

8. Ministry of Home Affairs, Government of India (2024). Annual Report, 2023–24

9. Finance Commission, Government of India (2025). Thirteenth Finance Commission Report

E-Resources:

- ✧ NDMA India: https://ndma.gov.in
- ✧ UNDRR – United Nations Office for Disaster Risk Reduction: https://www.undrr.org
- ✧ National Disaster Response Force: https://ndrf.gov.in

- ✧ BIS – Earthquake Resistant Design Code (IS 1893): https://bis.gov.in
- ✧ Geological Survey of India – Hazard Mapping: https://www.gsi.gov.in
- ✧ Ministry of Earth Sciences: https://moes.gov.in

Course Outcomes

Upon successful completion of the course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of disaster types and phases, earthquake and other natural disaster effects, hazard assessment methods, land use regulations, and the institutional framework for disaster management.
- **CO2:** Interpret and relate disaster classifications to building performance, structural strengthening techniques to hazard assessment results, land use zoning to quality control, and institutional roles to national policies for effective disaster mitigation.
- **CO3:** Apply an understanding of disaster phases, seismic strengthening principles, protection measures for floods/cyclones/fires, RVS/PSHA methodologies, and quality control mechanisms to evaluate building safety.
- **CO4:** Analyze the causes and impacts of various disasters on built structures, the efficacy of retrofitting and repair methods, the role of land use zoning, and the functioning of national disaster management institutions to assess disaster risk.
- **CO5:** Evaluate different structural and non-structural mitigation techniques, hazard assessment methodologies, quality assurance practices in construction, and the effectiveness of disaster management policies to inform risk reduction strategies.
- **CO6:** Develop a comprehensive disaster risk reduction plan by integrating knowledge of disaster types, structural mitigation measures, hazard assessment, quality control, and national policies to enhance community and infrastructure resilience.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	-	3	2
CO2	3	3	3	2	-	3	3
CO3	2	3	3	3	2	3	3
CO4	3	2	3	2	3	3	2
CO5	3	2	2	3	2	2	3
CO6	2	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25047 Economics and Financial Management in Construction L T P C
3 0 0 3

Course Objectives:

This course is designed to impart a sound understanding of the financial and economic principles applied in the construction industry. It covers core concepts such as time value of money, interest factor analysis, market structures, investment evaluation, project finance, cost analysis, and working capital management. Learners will gain the skills to compare alternative proposals, manage funds efficiently, and apply financial decision-making tools to optimize economic performance and reduce risks in construction projects.

Time Value of Money and Cash Flow Analysis

Time Value of Money - Cash flow diagram - Nominal and effective Interest - Continuous interest - Nominal and effective interest- continuous interest . Single Payment Compound Amount Factor (P/F,F/P) – Uniform series of Payments (F/A,A/F,F/P,A/P)– Problem time zero (PTZ)- equation time zero (ETZ). Constant increment to periodic payments – Arithmetic Gradient(G), Geometric Gradient (C)

Market Structure and Construction Economics

Types of Market Structure in the Construction Industry – Markets and the competitive environment- Perfect competition -. Monopolistic competition - Oligopoly - Monopoly – Characteristics and economic Profit – Construction Economics – BOOT, BOT, BOO Methods - Depreciation - Inflation Taxes

Evaluating Investment Alternatives

Present worth analysis, Annual worth analysis, Future worth analysis, Rate of Return Analysis (ROR) and Incremental Rate of Return (IROR) Analysis, Benefit/Cost Analysis, Break Even Analysis - Replacement Analysis- Equipment Replacement Analysis.

Project Funds and Financial Management

Project Finance - Sources - Working capital management- Inventory Management- Mortgage Financing-- Interim construction financing - Security and risk aspects

Construction Economics of Costing

Construction accounting basics – Chart of accounts – Types of costing – Marginal costing – Cost sheet preparation – Budgeting techniques – Overheads allocation – Role of cost control in infrastructure and real estate management.

Strategic Cost and Finance in Infrastructure Projects

Strategic financial planning – Life cycle costing – Role of economics in project selection – Financial modeling – Investment decision-making under uncertainty – Insurance in construction – Financial risk mitigation and contingency planning.

References:

1. Pandey, I. M. (2021). Financial Management (12th ed.). Vikas Publishing House.

2. Chandra, P. (2022). Financial Management: Theory and Practice, 11th ed., Tata McGraw Hill.

3. Samuelson, P. A., Marks, S. G., & Zagorsky, J. L. (2025). Managerial Economics, 10th ed., Wiley.

4. Blank, L. T., & Tarquin, A. J. (1988). Engineering Economy. McGraw Hill.

5. Patel, B. M. (2000). Project Management: Strategic Financial Planning. Vikas Publishing House.

6. Steiner, H. M. (1996). Engineering Economic Principles. McGraw Hill.

7. Shrivastava, U. K. (2000). Construction Planning and Management. Galgotia Publications.

8. Sengupta, B., & Guha, H. (1995). Construction Management and Planning. Tata McGraw Hill.

E-Resources:

- ✧ Ministry of Finance: https://finmin.nic.in
- ✧ NITI Aayog Infrastructure Finance Reports: https://niti.gov.in
- ✧ World Bank Infrastructure Economics Portal: https://ppi.worldbank.org
- ✧ Project Finance Institute: https://www.projectfinanceinstitute.com
- ✧ Investopedia – Financial Modeling and Construction Economics: https://www.investopedia.com

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of time value of money, market structures in the construction industry, investment evaluation metrics, project finance and working capital, costing methods, and strategic financial planning.
- **CO2:** Interpret and relate cash flow analysis to market dynamics, investment evaluation methods to project financing needs, and cost accounting to strategic financial planning to understand their integrated role in construction economics.
- **CO3:** Apply time value of money principles, investment evaluation techniques (e.g., NPV, IRR), working capital management, and cost accounting methods to make financial decisions for construction projects.
- **CO4:** Analyze cash flow diagrams, market structures, investment returns, financial management options (e.g., mortgage financing), cost data, and life cycle costing to assess the economic and financial performance of projects.
- **CO5:** Evaluate different investment alternatives, financial management strategies, costing methodologies, and strategic financial plans under uncertainty to optimize economic performance and mitigate risks in construction projects.
- **CO6:** Develop a comprehensive financial and economic strategy for a construction project by integrating knowledge of cash flow analysis, market dynamics, investment evaluation, working capital management, cost accounting, and strategic planning.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	3	-	3	2
CO2	3	3	3	2	2	3	3
CO3	3	2	3	3	2	3	3
CO4	3	3	2	3	3	3	3
CO5	3	3	3	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25048 Urban Environment Management L T P C
3 0 0 3

Course Objectives:

This course provides a comprehensive understanding of environmental challenges in urban settings and introduces sustainable practices in managing water, wastewater, and solid waste. It emphasizes planning for urban environmental infrastructure, including smart cities, green buildings, and integrated water resource management. Learners will be trained in pollution control norms, legal frameworks, economic implications, and modern technologies for sustainable urban development, with exposure to case studies and real-world applications.

Urban Environmental Issues and Pollution Management

Urbanization and population growth – Migration trends – Pollution of surface and groundwater – Wastewater characteristics and issues – Solid waste generation – Urban air pollution – CPCB standards and compliance mechanisms.

Urban Master Planning and Water Resources Management

Planning and organizational aspects -Urban waste resources management - Water in urban ecosystem -Urban water resources planning and organization aspects -Storm water management practices -Types of storage -Magnitude of storage -Storage capacity of urban components Percolation ponds -Temple tanks -Rainwater harvesting -Urban water supply - Demand estimation Population forecasting -Source identification -Water conveyance -Storage reservoirs -Fixing storage capacity - Distribution network -Types -Analysis -Computer applications - Conservation techniques Integrated urban water planning - Smart city project planning - Green Building - LEED certification - Green audit

Urban Wastewater Collection and Treatment

Sewage generation estimation – Industry wastewater contribution – Separate vs. combined collection systems – Hydraulic design of storm drains – Wastewater treatment technologies – Decentralized treatment systems – 3R (Reduce, Reuse, Recycle) concept in wastewater.

Integrated Municipal Solid Waste Management

Solid waste sources and characterization – Segregation at source – Waste collection methodologies – Route optimization and transportation – Transfer stations – Waste processing methods – Landfilling and safe disposal beyond urban limits – Pollution control in disposal.

Urban Environmental Governance and Economic Impact

Environmental economics – Social and psychological effects of pollution – Urban infrastructure financing – Environmental audits and urban compliance – Green taxes and subsidies – Stakeholder participation and community models.

Case Studies and Smart Infrastructure Solutions

Success stories in urban waste and water management – International urban sustainability models – Smart city environmental modules – Urban software and modeling tools – GIS in urban planning – Simulation-based planning and IoT for environmental monitoring.

References:

1. Chobanoglous, G., et al. (1993). Integrated Solid Waste Management. McGraw Hill
2. McGhee, J. (1991). Water Supply and Sewerage. McGraw Hill
3. Wanelista, M. W., & Yousef, A. (1993). Storm Water Management and Operations. John Wiley
4. Grigg, N. S. (1986). Urban Water Infrastructure Planning, Management, and Operations. John Wiley
5. Singh, R. B. (2008). Urban Development and Environmental Challenges. Rawat Publications

E-Resources:

- ✧ Ministry of Housing and Urban Affairs (MoHUA): https://mohua.gov.in
- ✧ Central Pollution Control Board (CPCB): https://cpcb.nic.in
- ✧ Smart Cities Portal: https://smartcities.gov.in
- ✧ UN-Habitat Urban Sustainability: https://unhabitat.org
- ✧ NITI Aayog Urban Analytics: https://niti.gov.in

Course Outcomes

Upon successful completion of this course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of urban environmental issues, master planning principles, wastewater and solid waste management systems, urban environmental governance, and smart infrastructure solutions.
- **CO2:** Interpret and relate urban environmental issues and CPCB standards to master planning, wastewater and solid waste management to urban governance, and smart city solutions to global case studies.
- **CO3:** Apply urban master planning principles, wastewater and solid waste management techniques, environmental economics, and digital tools to develop strategies for sustainable urban infrastructure.
- **CO4:** Analyze urban pollution challenges, water resource plans, wastewater and solid waste management systems, governance and economic models, and smart city technologies to assess their effectiveness.

- **CO5:** Evaluate different master plans, wastewater collection/treatment systems, solid waste management strategies, governance models, and smart city initiatives to make informed decisions for urban environmental management.
- **CO6:** Develop an integrated urban environmental management plan by synthesizing knowledge of urban issues, master planning, wastewater/solid waste systems, governance, and smart solutions to promote sustainable urban development.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	3	3	2	3	3
CO4	3	3	3	2	3	3	2
CO5	3	3	2	3	3	3	3
CO6	3	2	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25049 Smart Materials, Techniques and Equipment for Infrastructure L T P C
3 0 0 3

Course Objectives:

This course aims to equip students with comprehensive knowledge of emerging materials, intelligent systems, and advanced construction techniques used in modern infrastructure development. It covers special concretes, smart composites, and intelligent building materials, along with their applications. The course also highlights contemporary substructure and superstructure techniques, construction of special structures, and modern demolition technologies. Through case-based learning and practical applications, students will be enabled to select, evaluate, and implement the most suitable techniques and materials for complex infrastructure projects.

Special Concretes and Alternative Materials

Properties and behavior of concrete – High strength and high-performance concrete – Fibre-reinforced concrete – Self-compacting concrete – Bacterial concrete – Reactive powder concrete – Ready-mix concrete – Geopolymer concrete – Use of alternate materials for sustainability.

Metals, Composites, and Smart Materials

New-generation steels and alloy coatings – Cold-formed steel – Aluminum in construction – Plastics, FRPs, and reinforced polymers – Smart materials for intelligent buildings – Sensors and intelligent response materials – Applications and performance in real-time environments.

Advanced Techniques in Substructure Construction

Box jacking and pipe jacking – Diaphragm walls and deep basements – Underwater constructions – Tunneling techniques – Sheet pile driving – Offshore structure foundations – Shoring for deep cuts – Large reservoir foundations – Trenchless technology and modern excavation.

Superstructure Techniques for Tall and Complex Buildings

Vacuum dewatering – Paving techniques – Continuous concreting in high-rise buildings – Suspended formwork – Deck launching – Inset pre-stressing – Handling and erecting lightweight elements – Equipment for tall structure erection – Aerial transportation of materials.

Construction of Special Infrastructure

Erection of lattice towers – Cooling towers and chimneys – Cable-stayed and bowstring bridges – Offshore platforms – Articulated structures – Space decks and braced domes – Machinery foundations – Conveyor and rig structures – Special prestressed domes and rigging.

Modern Demolition and Retrofitting Technologies

Advanced demolition strategies – Controlled blasting – Mechanical dismantling – Use of robots in demolition – Debris handling and recycling – Retrofitting techniques – Safety and environmental considerations – Demolition sequence planning and documentation.

References:

1. Tchobanoglous, G., Theisen, H., & Vigil, S. A. (1993). Integrated Solid Waste Management. McGraw Hill.
2. McGhee, J. (1991). Water Supply and Sewerage. McGraw Hill.

3. Wanelista, M. W., & Yousef, A. (1993). Storm Water Management and Operations. John Wiley.
4. Grigg, N. S. (1986). Urban Water Infrastructure Planning, Management, and Operations. John Wiley.
5. Singh, R. B. (2008). Urban Development and Environmental Challenges. Rawat Publications.
6. Government of India – Urban Infra Reports
    a) Smart Cities Mission Annual Report 2024
    b) Swachh Bharat Mission-Urban 2.0 & AMRUT 2.0 Reports (2021–26)

E-Resources:

- ✧ American Concrete Institute: https://www.concrete.org
- ✧ Construction Industry Development Council: https://www.cidc.in
- ✧ National Institute of Construction Management and Research: https://www.nicmar.ac.in
- ✧ BIS Standards for Smart Materials: https://www.bis.gov.in
- ✧ Springer Link – Smart Materials in Construction: https://link.springer.com
- ✧ ScienceDirect – Advanced Building Technologies: https://www.sciencedirect.com

Course Outcomes

Upon successful completion, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of special concretes, smart materials, advanced substructure and superstructure techniques, special infrastructure construction methods, and modern demolition/retrofitting technologies.
- **CO2:** Interpret and relate the properties of advanced materials (e.g., smart composites) to their application in substructure and superstructure construction, special infrastructure projects, and retrofitting methods.
- **CO3:** Apply knowledge of special concretes, smart materials, advanced substructure techniques (e.g., tunneling), superstructure methods, and modern retrofitting practices to solve complex construction challenges.
- **CO4:** Analyze the suitability of special concretes and smart materials, substructure and superstructure techniques, and special structure construction methods to evaluate the feasibility of complex infrastructure projects.
- **CO5:** Evaluate different advanced materials, construction techniques for substructures and superstructures, special infrastructure construction methods, and modern demolition/retrofitting technologies to make informed decisions for project planning and execution.
- **CO6:** Develop a comprehensive project plan by integrating knowledge of smart materials, advanced substructure and superstructure techniques, special infrastructure construction, and modern demolition/retrofitting technologies to achieve project objectives efficiently and safely.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	3	3	2
CO2	3	3	2	3	2	3	3
CO3	3	2	3	3	3	3	3
CO4	3	3	3	3	3	3	3
CO5	2	3	3	3	3	3	3
CO6	2	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25050 Strategic Airport Infrastructure Management L T P C
3 0 0 3

Course Objectives:

This course is designed to provide comprehensive knowledge of airport infrastructure, its classification, planning, governance models, and strategic Business evolution. Students will learn about airfield components, capacity design, runway and terminal planning, and air traffic systems. The course also explores airport enterprise models, governance structures, non-aeronautical revenue generation, and benchmark international case studies such as Singapore Changi Airport. It integrates airport marketing strategies, value chain mapping, and loyalty frameworks relevant to modern airport operations and planning.

Introduction to Airport Infrastructure Systems

Growth of air transport – Classification of airports – Components of an airport – Airfield layout – Air traffic zones and approach areas – Role of airport organizations and associations – Airport system planning and decision-making context – Airline and stakeholder relationships.

Capacity Planning and Infrastructure Design

Airport size, layout, and movement patterns – Turning radius and speed – Capacity factors and delay metrics – Runway, gate, and taxiway capacity – Methods of delay analysis and optimization in high-density operations.

Physical Planning and Survey Techniques

Runway and taxiway planning – Visibility and sight distances – Terminal design principles – Apron, taxiway, and clearance specifications – Passenger traffic analysis – Noise control – Parking, vehicular circulation – ATC and landing aids – Lighting systems – Integrated planning approaches.

Strategic Airport Enterprise and Governance

Airport Business models – Economic impact on regions – Governance patterns: public, private, PPP – Evolution of airport enterprise globally – Value chain analysis in air transport – Roles of airlines and ground handlers – Airport marketing strategies – Revenue management models – Airport alliances and management contracts.

Non-Aviation Infrastructure and Commercial Development

Related value Proposition. Evolution of traditional Airport - Evolutionary patterns for airport enterprises- Commercial Airport Philosophy - tourist and conference service - logistic services- property management- consulting services - BAA and the non aviation Business - best airport in the world: The case of Singapore Airport

Benchmarking and Innovation in Airport Strategy

Airport benchmarking techniques – Global airport awards and KPIs – ALPS (Airport Loyalty and Performance Strategy) – Innovation in airport services – Digital transformation in airport management – Provider-customer relationship models – Role of technology in enhancing operational efficiency.

References:

1. De Neufville, R., Odoni, A., Belobaba, P., & Reynolds, T. (2013). Airport Systems: Planning, Design and Management, 2nd ed., McGraw-Hill.
2. Young, S. B., & Wells, A. T. (2025). Airport Planning and Management, 7th ed., McGraw-Hill.
3. Wood, R. H. (2001). Aviation Safety Programs – A Management Handbook. Jeppesen Sanderson Inc.
4. National Academies Press (2015). Asset and Infrastructure Management for Airports – Primer and Guidebook.
5. Graham, A. (2023). Managing Airports: An International Perspective, 6th ed., Routledge.

E-Resources:

- ✧ International Civil Aviation Organization (ICAO): https://www.icao.int
- ✧ Airports Council International (ACI): https://aci.aero
- ✧ FAA Airport Design Resources: https://www.faa.gov/airports
- ✧ Singapore Changi Airport Business Model: https://www.changiairport.com

✧ Airport Carbon Accreditation: https://airportcarbonaccreditation.org

✧ Eurocontrol – Airport Capacity Planning: https://www.eurocontrol.int

Course Outcomes

Upon successful completion, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of airport classification and infrastructure, capacity planning, physical design, strategic governance models, non-aeronautical infrastructure, and benchmarking and innovation frameworks.
- **CO2:** Interpret and relate airfield components and layouts to capacity planning, physical design principles to non-aviation revenue generation, and governance models to innovation and benchmarking strategies in airport management.
- **CO3:** Apply knowledge of airport classification, capacity design, physical planning, marketing and revenue management strategies, and benchmarking frameworks to solve operational and strategic challenges.
- **CO4:** Analyze airport infrastructure systems, capacity constraints, terminal design, governance and business models, non-aeronautical revenue streams, and benchmarking data to assess operational efficiency and economic impact.
- **CO5:** Evaluate different capacity planning methods, physical design options, strategic governance models, non-aviation business strategies, and innovation frameworks to make informed decisions for airport development.
- **CO6:** Develop a comprehensive strategic plan for an airport by integrating knowledge of infrastructure systems, capacity planning, physical design, governance, non-aeronautical business, and benchmarking to enhance operational performance and customer experience.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	3	2	3	3	3
CO4	3	3	2	3	2	3	2
CO5	3	2	3	2	3	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25051 Real Estate Marketing and Management L T P C
3 0 0 3

Course Objectives:

This course is designed to provide comprehensive knowledge of the real estate development lifecycle from site acquisition to project handover. It emphasizes the role of regulatory bodies, market research, legal processes, fiscal planning, and infrastructure mobilization. The course also introduces students to marketing techniques, communication tools, joint venture models, and post-completion procedures, equipping them to manage both commercial and residential real estate ventures strategically and legally.

Introduction to Real Estate Development

Overview of the real estate sector – Real estate development fundamentals – Role of industry bodies (e.g., CREDAI, BAI) – Stakeholder landscape – Developer functions and responsibilities – Legal, commercial, and social implications.

Pre-Project Planning and Feasibility Studies

Project lifecycle modeling – Site evaluation techniques – Land procurement and documentation – Development team assembly – Market feasibility studies – Regulatory prerequisites – Environmental and land-use considerations.

Planning, Approvals, and Legal Framework

Urban planning inputs – Technical feasibility reports – Planning objectives – Front-end clearances – Development authorities and compliance processes – Project scheduling – Regulatory timelines – RERA compliance – State and national urban policies.

Construction and Project Execution

Construction phasing and task breakdown – Infrastructure requirement analysis – Human resource mobilization – Budgeting and cost estimation – Vendor and contractor management – Materials management and storage protocols.

Real Estate Marketing Strategies

Project positioning and branding – Communication tools (brochures, walkthroughs, digital marketing) – Franchisee models and dealership structures – Joint venture strategies – CRM and lead conversion – Legal issues in real estate marketing.

Project Handover, Compliance and Customer Engagement

Final inspection and compliance – Sale deed execution – Legal documentation and registration – Tax and financial closure – Post-handover services – Property management services – Customer relationship retention – Complaint redressal frameworks.

References:

1. Cortesi, G. R. (2022). Mastering Real Estate Principles (8th ed.). Dearborn Real Estate Education.
2. Galaty, F. W., Allaway, W. J., & Kyle, R. C. (2022). Modern Real Estate Practice (21st ed.). Dearborn Real Estate Education.
3. Davis, T. (2007). Real Estate Developer's Handbook. Atlantic Publishing.
4. Miles, M. E., Netherton, L. M., & Schmitz, A. (2015). Real Estate Development: Principles & Process (5th ed.). Urban Land Institute
5. Kohli, A. (2019). Indian Real Estate Market: Practice, Challenges and Way Forward. RICS

E-Resources:

- ✧ Real Estate Regulatory Authority (RERA): https://rera.gov.in
- ✧ CREDAI: https://credai.org
- ✧ Ministry of Housing and Urban Affairs: https://mohua.gov.in
- ✧ India Brand Equity Foundation – Real Estate: https://www.ibef.org
- ✧ ULI Learning – Urban Land Institute: https://uli.org
- ✧ National Association of Realtors India (NAR-INDIA): https://narindia.com

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of real estate development fundamentals, pre-project planning, legal frameworks for approvals, construction execution, marketing strategies, and project handover procedures.
- **CO2:** Interpret and relate the real estate development lifecycle to market feasibility studies, legal and RERA compliance to project execution, and marketing strategies to post-handover customer engagement.
- **CO3:** Apply knowledge of real estate development processes, pre-project planning techniques, regulatory requirements, project execution methods (e.g., budgeting), and marketing tools to manage a real estate venture.
- **CO4:** Analyze market trends and feasibility studies, legal and RERA compliance, construction management strategies (e.g., vendor management), marketing effectiveness, and post-handover legal documentation to assess project performance.
- **CO5:** Evaluate different pre-project planning methods, legal compliance strategies, construction management approaches, marketing models (e.g., joint ventures), and post-handover procedures to optimize the real estate development lifecycle.
- **CO6:** Develop an integrated real estate project management plan by synthesizing knowledge of development fundamentals, market research, legal frameworks, construction

management, marketing strategies, and handover processes to ensure a successful project.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	3	3	2
CO2	3	3	2	2	3	3	3
CO3	3	3	2	2	2	3	2
CO4	3	2	3	2	3	3	3
CO5	2	3	3	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25052 Infrastructure and Real Estate Entrepreneurship L T P C
3 0 0 3

Course Objectives:

This course aims to foster entrepreneurial competencies with a special focus on the infrastructure and real estate sectors. It enables students to understand the dynamics of the entrepreneurial environment, formulate and evaluate Business plans, and explore financial and operational strategies for launching and managing ventures. It also emphasizes government policies, support mechanisms, and technological innovations like incubation and venture capital. Students will gain practical insights to manage and scale business in real estate and infrastructure effectively.

Entrepreneurial Foundations and Competence

Concept of Entrepreneurship – Entrepreneurship as a Career – Traits and Characteristics of Successful Entrepreneurs – Entrepreneurial Motivation and Personality – Knowledge and Skills of Entrepreneurs – Role of Creativity and Innovation.

Ecosystem and Institutional Support

Entrepreneurial Ecosystem – Role of Family, Society, and Educational Institutions – Central & State Government Industrial Policies – Support Systems: EDII, MSME, SIDBI, TIDCO, TANSIDCO – Regulatory Environment – International Business Environment for Real Estate Entrepreneurs.

Business Planning and Feasibility Analysis

Opportunity Identification – Product/Service Selection – Prefeasibility Study – Legal Structure of Business – Project Budgeting and Financial Planning – Matching Entrepreneur with Project – Feasibility Report and Business Model Canvas.

Launching and Scaling Ventures

Financing Options – Venture Capital – Angel Funding – Incubation Centers – Operations Planning – Human Resource Mobilization – Product Launching – Strategic Growth and Business Scalability – Role of IT Startups in Real Estate and Infrastructure.

Managing Small Enterprises

Enterprise Monitoring – Key Performance Indicators (KPIs) – Risk and Crisis Management – Preventing Sickness in Small Enterprises – Turnaround Strategies – Quality and Productivity in Infrastructure/Real Estate Ventures.

Emerging Trends and Real Estate Entrepreneurship

Urbanization and Infrastructure Demand – Smart Cities – Affordable Housing and Green Buildings – PPP Models in Infrastructure – Legal Framework in Real Estate – Real Estate Investment Trusts (REITs) – Regulatory Bodies (RERA, CREDAI).

References:

1. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2024). Entrepreneurship, 12th Edition, McGraw-Hill Education.
2. Khanka, S. S. (2023). Entrepreneurial Development, Revised Edition, S. Chand Publishing.
3. Kuratko, D. F., & Rao, T. V. (2012). Entrepreneurship: A South-Asian Perspective, 1st Edition. Cengage Learning.
4. Chandra, P. (2023). Projects: Planning, Analysis, Selection, Financing, Implementation, and Review, 10th Edition, Tata McGraw Hill.
5. Arya, Kumar (2012). Entrepreneurship, Pearson Education.
6. Gopalaswamy, M. (2010). Economics of Real Estate, 1st Edition, New Age International
7. NITI Aayog / Ministry of Housing & Urban Affairs Reports – RERA Act (2016) and Related Policy Publications.

E-Resources:

- ✧ https://www.startupindia.gov.in – Government Startup Support
- ✧ https://msme.gov.in – MSME Schemes and Policies
- ✧ https://rera.gov.in – Real Estate Regulatory Authority
- ✧ https://www.naredco.in – National Real Estate Development Council
- ✧ NPTEL Course: Entrepreneurship Essentials – https://nptel.ac.in/courses/110/106/110106141/

✧ CREDAI Reports and Industry Updates – https://credai.org

✧ Smart Cities Portal – https://smartcities.gov.in

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of entrepreneurial foundations, the institutional support ecosystem, business planning, venture launching strategies, enterprise management techniques, and emerging real estate and infrastructure trends.
- **CO2:** Interpret and relate entrepreneurial competencies to institutional support mechanisms, business planning to venture launch strategies, and enterprise management to emerging trends and regulatory frameworks (e.g., RERA, REITs).
- **CO3:** Apply entrepreneurial skills, knowledge of government support systems, business model canvas, financing options, and management tools to formulate a business plan and address challenges in a new venture.
- **CO4:** Analyze entrepreneurial competencies, institutional policies, feasibility reports, operational and financial strategies, and key performance indicators to assess the viability and performance of a real estate or infrastructure enterprise.
- **CO5:** Evaluate different business plans, financing options, risk management strategies, and emerging industry trends (e.g., Smart Cities, PPP models) to make informed decisions for launching and sustaining a venture.
- **CO6:** Develop a comprehensive business plan for a new venture by synthesizing knowledge of entrepreneurial traits, support ecosystems, business planning, launch strategies, enterprise management, and emerging trends in the real estate and infrastructure sectors.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	2	3	2	3	3
CO3	2	3	3	2	3	3	2
CO4	2	2	3	3	3	2	2
CO5	3	2	2	3	2	2	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO6	3	3	3	3	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25053 Valuation of Real Estate and Infrastructure Assets L T P C
3 0 0 3

Course Objectives:

This course equips students with the foundational and advanced concepts of valuing different types of real estate and infrastructure assets. It emphasizes valuation principles, asset classification, financial modeling, and regulatory frameworks. Learners will be able to interpret and apply valuation methods for both traditional and alternative infrastructure investments. The course also integrates contemporary practices, case applications, and decision-support tools to make sound investment and asset management decisions in real estate and infrastructure sectors.

Fundamentals of Asset Valuation

Concept of Valuation – Purpose of Valuation – Tangible and Intangible Assets – Real Estate vs. Infrastructure Assets – Principles and Approaches of Valuation – Fair Value, Market Value, and Investment Value – Key Terminologies in Valuation.

Valuation of Land and Residential Real Estate

Land Valuation Techniques – Comparable Sales Method – Land Residual Method – Rental Method – Valuation of Apartments and Independent Houses – Factors Influencing Residential Property Valuation – Case Illustrations.

Commercial and Industrial Property Valuation

Valuation of Office Spaces – Retail Properties – Industrial Warehouses – Depreciated Replacement Cost – Income Capitalization Method – Yield Analysis – Lease Structures and Impact on Valuation – Real Estate Investment Risk.

Infrastructure Asset Valuation Techniques

Characteristics of Infrastructure Assets – Toll Roads, Airports, Ports, Power Projects – Cost Approach – Discounted Cash Flow (DCF) Analysis – Real Options in Infrastructure Valuation – Life-cycle Costing – Asset-Specific Parameters.

Regulatory Frameworks and Institutional Norms

Valuation Guidelines by RERA, RBI, and SEBI – Role of Registered Valuers – Norms by IBBI (Insolvency and Bankruptcy Board of India) – Professional Valuation Standards – Legal Documentation and Statutory Approvals – International Valuation Standards.

Contemporary Valuation Practices and Case Studies

Valuation for Infrastructure Bonds and PPP Projects – Impact of ESG and Sustainability on Valuation – Data Analytics in Asset Valuation – Technology-driven Valuation Tools – Case Studies of Infrastructure and Real Estate Projects – Risk Mitigation and Sensitivity Analysis.

References:

1. Blanc-Brude, F., & Hasan, M. (2017). Infrastructure Valuation and Asset Management. EDHEC Risk Institute
2. Garvin, M. J. (2009). Valuation Techniques for Infrastructure Investment Decisions. Columbia University
3. Cheah, C. Y. J. (2009). Application of Real Options in Infrastructure Projects.
4. Chopra, S. (2021). Real Estate Valuation: Principles and Applications. McGraw-Hill
5. Geltner, D., Miller, N. G., Clayton, J., & Eichholtz, P. (2023). Commercial Real Estate Analysis and Investments, 4th Ed., Cengage Learning
6. Saravanan, P. (2024). Valuation of Fixed Assets and Infrastructure, 2nd Ed., Taxmann Publications

E-Resources:

- ✧ https://www.thebalance.com/real-estate-investment-types
- ✧ https://rbsa.in/valuation_of_infrastructure_assets_specialized_assets.html
- ✧ https://edhec.infrastructure.institute
- ✧ https://www.rera.gov.in – Real Estate Regulatory Authority
- ✧ https://www.ibbi.gov.in – Insolvency and Bankruptcy Board of India
- ✧ https://www.ivalua.org – International Valuation Standards
- ✧ NPTEL Course: Infrastructure Finance – https://nptel.ac.in/courses/110/107/110107152

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of asset valuation fundamentals, valuation methods for residential, commercial, and infrastructure assets, regulatory frameworks, and contemporary valuation practices.
- **CO2:** Interpret and relate the principles of valuation to land, residential, commercial, and infrastructure assets, and apply regulatory norms to contemporary valuation trends and case studies.
- **CO3:** Apply valuation techniques for residential and commercial properties, financial models (e.g., DCF) for infrastructure assets, and regulatory standards to real-world valuation scenarios.
- **CO4:** Analyze the various valuation approaches for residential, commercial, and industrial assets, financial models for infrastructure, regulatory requirements, and the impact of ESG and data analytics on valuation.

- **CO5:** Evaluate different valuation methodologies, financial models, regulatory guidelines, and contemporary trends (e.g., bonds, PPP, ESG) to make sound investment and asset management decisions for real estate and infrastructure assets.
- **CO6:** Develop a comprehensive valuation report by synthesizing knowledge of valuation fundamentals, valuation methods for all asset types, regulatory frameworks, and contemporary tools for a complex real estate or infrastructure project.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	3	2	2	3	2
CO2	3	3	2	2	2	2	3
CO3	2	3	3	2	3	3	2
CO4	3	3	3	3	2	3	3
CO5	3	2	2	3	3	2	2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25054 **Tourism Principles and Practices** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide students with a comprehensive understanding of the core principles, forms, and theoretical foundations of tourism. It explores the structure and dynamics of the tourism industry, the impact of tourism on society and economy, and the role of national and international organizations. The course also addresses emerging tourism trends, planning models, and the practicalities of tourism Business operations in the global and Indian contexts.

Conceptual Foundations of Tourism

Tourism definitions – Tourist, Traveler, Visitor, Excursionist – Historical evolution: Early, Medieval, Renaissance periods – Birth of Mass Tourism – Nature, scope, and significance – Components of tourism – Tourism system and interdisciplinary perspectives – Travel motivations and deterrents – Emerging areas and practices in modern tourism.

Forms and Trends in Tourism

Types of tourism – Inbound, Outbound, National, International – Alternative tourism – Sustainable and Inclusive tourism – Current global and domestic trends – Tourism statistics and data analytics – Measurement of tourism performance – Demand and supply indicators in tourism.

Tourism Industry Structure and Business Functions

Tourism industry structure – Direct, indirect, and supporting services – Components: Transportation, accommodation, amenities – Horizontal and vertical integration – Infrastructure and superstructure – Role of technology and digital platforms in tourism operations.

Tourism Planning and Theoretical Models

Tourism planning models – Leiper's Geo-Spatial Model – Mill-Morrison Tourism Policy Model – Butler's Tourism Area Life Cycle (TALC) – Doxey's Irridex – Mathieson & Wall's Travel Buying Behavior – Gunn's Tourism Planning – Plog's Psychographic Model – Crompton's Push and Pull Theory.

Global and National Tourism Organizations

Role and structure of international tourism organizations – UNWTO, IATA, ICAO, WTTC, IHA – Indian institutions: Ministry of Tourism, ASI, DGCA, IRCTC, ITDC, IATO, TAAI, FHRAI, ICPB – State tourism development corporations – Airport Authority of India – Public-private partnerships in tourism.

Contemporary Issues and Innovations in Tourism

Digital tourism and smart tourism ecosystems – Impact of AI and big data in tourism – E-tourism services – Ecotourism and responsible travel – Post-pandemic tourism strategies – Community-based tourism – Ethical and environmental considerations – Career and entrepreneurial opportunities.

References:

1. Gupta, R., Singh, N., Kirar, I., & Bairwa, M. K. (2015). Hospitality and Tourism Management, Vikas Publishing.
2. Goeldner, C. R., & Ritchie, J. R. B. (2012).Tourism: Principles, Practices, Philosophies, 12th Edition, Wiley.
3. Swain, S. K., & Mishra, J. M. (2011). Tourism: Principles and Practices, Oxford University Press.
4. Cooper, C., et al. (2017). Tourism: Principles & Practice, 6th Edition, Pearson.
5. Malra, R. (2013).Tourism: Principles, Practices, Concepts and Philosophies, Anmol Publications.

E-Resources:

- ✧ UNWTO Tourism Knowledge: https://www.unwto.org/
- ✧ Ministry of Tourism, India: https://tourism.gov.in/
- ✧ ICAO Tourism Data: https://www.icao.int/
- ✧ IATA Travel Center: https://www.iata.org/
- ✧ WTTC Insights: https://wttc.org/

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of tourism's foundations, forms and trends, industry structure, planning models, global and national organizations, and contemporary issues.
- **CO2:** Interpret and relate tourism concepts to industry structure, planning models to the roles of national and international organizations, and emerging trends to innovative practices in modern tourism.
- **CO3:** Apply tourism principles, trend data, business functions, planning models, organizational frameworks, and digital tools to address a practical tourism scenario.
- **CO4:** Analyze the various forms of tourism, industry structure, planning models, the strategic roles of tourism organizations, and the impact of digital transformation to assess tourism development.
- **CO5:** Evaluate the effectiveness of different tourism planning models, industry structures, and the role of national and international organizations to make strategic decisions for sustainable tourism.
- **CO6:** Develop a comprehensive tourism strategy by synthesizing knowledge of the conceptual foundations, industry trends and structure, planning models, organizational frameworks, and contemporary innovations for a given destination.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	1	3	2
CO2	2	3	3	2	2	2	3
CO3	3	3	2	2	3	3	2
CO4	2	2	3	2	2	2	3
CO5	2	2	1	3	2	2	2
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25055	Travel Management	L T P C 3 0 0 3

Course Objectives:

This course equips students with a thorough understanding of the travel industry's structure, components, and evolving trends. It delves into the operations of travel agencies, cargo logistics, regulatory frameworks, and marketing of travel services. The curriculum integrates modern developments such as MICE tourism and liberalization impacts, enabling students to navigate and contribute to the travel and tourism Business effectively. The course also emphasizes digital advancements, strategic mergers, and international travel formalities.

Foundations of the Travel Industry

Definition and scope of the travel industry – Modes of travel: Air, Rail, Road, Sea – National and international travel authorities – Classification of tours: Inbound, Outbound, Domestic, and International – Travel behavior and industry significance.

Travel Agencies and Tour Operations

Historical background of travel trade – Importance of travel agencies – Types of travel agents: Full-Service, Commercial, Implant, Incentive-based – Types of tour operators: Inbound, Outbound, Domestic, Ground Handling, Specialized Tour Operators – Roles and responsibilities of agencies.

Travel Management Components and Formalities

Market research and customer insights – Marketing techniques for leisure travel – MICE tourism (Meetings, Incentives, Conferences, Exhibitions) – Fare constructions and scheduling (railways and airlines) – Travel documentation – Passport, Visa, Foreign Exchange, Customs, Insurance, and other legal procedures.

Cargo Logistics and Travel Operations

Air and sea cargo fundamentals – Types of cargo – Documentation: AWB, Bill of Lading, Manifest – Cargo handling, loading/unloading procedures – Cargo tariffs and cost estimation – Regulatory authorities and compliance norms.

Strategic Shifts in the Travel Industry

Impact of liberalization, globalization, and digitalization – Mergers, acquisitions, and consolidation trends – Corporate travel practices – Role of OTAs (Online Travel Aggregators) – Disruptive technologies in travel.

Trends and Innovations in Travel Management

Emerging technologies in travel: AI, VR, chatbots – Digital customer experiences – Green and sustainable travel practices – Personalized travel packages – Business travel analytics – Risk management and crisis handling in global travel.

References:

1. Chand, M. (2009). Travel Agency Management: An Introductory Text, Anmol Publications Pvt. Ltd.
2. Swain, S.K., & Mishra, J.M. (2012).Tourism: Principles & Practices, Oxford University Press.
3. Holloway, J.C. (2016). The Business of Tourism, 11th Edition, Pearson Education.
4. Roday, S., Biwal, A., & Joshi, V. (2017). Tourism Operations and Management, Oxford University Press.
5. Goeldner, R., & Ritchie, J.R.B. (2012). Tourism: Principles, Practices, and Philosophies, 12th Edition, Wiley.
6. Negi, J. (2018). Travel Agency Operations: Concepts and Principles, Kanishka Publishers.
7. Walker, J.R., & Walker, J.J. (2015). Tourism Concepts and Practices, 4th Edition, Pearson Education.

E-Resources:

- ✧ International Air Transport Association (IATA): https://www.iata.org/
- ✧ UN World Tourism Organization (UNWTO): https://www.unwto.org/
- ✧ Ministry of Tourism, Government of India: https://tourism.gov.in/
- ✧ ClearTrip Travel Business Blog: https://www.cleartrip.com/blog
- ✧ Airport Authority of India: https://www.aai.aero/
- ✧ Travel Trends & Insights: https://skift.com/

Course Outcomes

Upon successful completion of this course, the learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of the travel industry's foundations, travel agency and tour operations, travel management components and formalities, cargo logistics, strategic shifts, and contemporary trends.
- **CO2:** Interpret and relate the travel industry's foundational principles to agency and tour operations, travel formalities to cargo logistics, and strategic shifts to emerging innovations and sustainable practices.
- **CO3:** Apply knowledge of travel industry components, agency/tour operator functions, marketing techniques for MICE tourism, cargo logistics procedures, and digital tools to manage a travel itinerary.
- **CO4:** Analyze the impact of travel industry foundations, agency/tour operator models, travel formalities, cargo logistics operations, and strategic shifts to assess operational efficiency and business viability.
- **CO5:** Evaluate different travel agency models, marketing strategies, cargo logistics options, strategic transformations, and innovative technologies to make informed decisions in travel management.

- **CO6:** Design a comprehensive travel management plan by integrating knowledge of the travel industry's structure, agency operations, travel formalities, cargo logistics, strategic shifts, and contemporary innovations to meet client and business objectives.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	3	2	3	2	2	2	3
CO3	2	3	3	2	2	3	3
CO4	2	3	2	3	2	2	2
CO5	3	2	2	2	3	3	2
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25056 **International Tourism** **L T P C**
3 0 0 3

Course Objectives:

This course is designed to provide students with a comprehensive understanding of international tourism from historical, cultural, regulatory, and organizational perspectives. It aims to examine the global trends and factors influencing international travel, intercultural interactions, and sustainable tourism practices. Students will gain insights into regional distribution patterns, international conventions, and the pivotal roles played by global tourism organizations. Emphasis is also placed on contemporary challenges, responsible tourism, and strategic participation in international travel forums and fairs.

Global Environment and Cultural Perspectives

Globalization and its influence on tourism – Scope and types of international tourism – Cultural diversity and intercultural theories – Cultural practices and their impact on tourism – Intercultural communication and social interactions in tourism environments.

Economic Drivers and Growth Trends in International Tourism

Economic determinants of international tourism – Key forces influencing global travel – Domestic, regional, and global tourist movement trends – Techniques for forecasting future tourism patterns – Foreign exchange earnings – Sustainability, experiential tourism, ethics, and social responsibility – Threats to international tourism.

Regional Trends in International Tourism

Inbound and outbound tourism trends across regions – Europe: France, Spain, Italy, UK – Americas: USA, Mexico, Brazil, Caribbean Islands – Asia-Pacific: China, Thailand, Singapore, Australia, New Zealand – Africa: South Africa, Kenya, Egypt – Comparative analysis and tourism flow mapping.

International Agreements and Legal Frameworks

Tourism Bills of Rights – Tourism Code – Manila Declaration – International conventions and accords: Warsaw (1924), Chicago (1944), Brussels (1961 & 1966), Athens (1974), Helsinki (1974) – IATA conditions of carriage – World travel laws and international tourism legislation.

Global Regulatory Bodies and Government Roles

Role and need for international tourism organizations – Structure and functions of NTOs – UNWTO, WTTC, PATA, IATA, IUOTO, UFTAA, WATA, ICAO – Roles in global tourism development – Government tourism ministries and international cooperation.

Strategic Forums and Contemporary Practices in International Tourism

Strategic importance of global tourism fairs – WTM, ITB, KTM, FITUR – Advantages of participation – Government-private partnerships – Role of technology in international tourism – Geo-political influence on tourism – Green and inclusive tourism practices.

References:

1. Reisinger, Y. (2013). International Tourism: Cultures and Behavior, 2nd Edition, Routledge (Taylor & Francis).
2. Bhatia, A.K. (2017). International Tourism Management, 3rd Edition, Sterling Publishers.
3. Conrady, R., & Buck, M. (2019). Trends and Issues in Global Tourism, 4th Edition, Springer.
4. Shackley, M. (2006). Atlas of Travel and Tourism Development, Routledge. Lyon, S.M., & Wells, E.C. (2012).
5. Global Tourism: Cultural Heritage and Economic Encounters, AltaMira Press. Burkart, J., & Medlik, S. (1986).
6. Tourism: Past, Present and Future, 2nd Edition, Heinemann.
7. Singh, T.V., et al. (1989). Towards Appropriate Tourism: The Case of Developing Countries, European University Studies.

8. Mill, R.C., & Morrison, A.M. (2021). The Tourism System: An Introductory Text, 9th Edition, Kendall Hunt Publishing.

E-Resources:

- ✧ UNWTO: https://www.unwto.org
- ✧ WTTC: https://wttc.org
- ✧ IATA: https://www.iata.org
- ✧ PATA: https://www.pata.org
- ✧ ICAO: https://www.icao.int
- ✧ Global Tourism Reports (Skift): https://skift.com

Course Outcomes

Upon successful completion of this course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of the global environment and cultural aspects of tourism, its economic drivers, regional trends, international legal frameworks, global regulatory bodies, and contemporary strategic practices.
- **CO2:** Interpret and relate global cultural perspectives to economic growth trends, regional tourism flows to international agreements, and the roles of regulatory bodies to strategic forums and contemporary practices.
- **CO3:** Apply an understanding of cultural differences, economic drivers, regional trends, international conventions, and the roles of tourism organizations to a specific international tourism development plan.
- **CO4:** Analyze the impact of globalization, economic trends, regional tourism flows, legal frameworks, and the influence of regulatory bodies to assess the international tourism environment.
- **CO5:** Evaluate the effectiveness of international agreements and legal frameworks, the roles of global regulatory bodies, and contemporary practices (e.g., technology, green tourism) to make strategic decisions for international tourism development.
- **CO6:** Develop a comprehensive international tourism strategy by synthesizing knowledge of global cultural contexts, economic trends, regional dynamics, legal frameworks, regulatory bodies, and strategic forums to enhance global competitiveness and sustainability.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix::

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	2	3	2
CO2	3	3	3	2	3	2	3
CO3	2	2	3	2	2	3	2
CO4	2	3	3	3	2	2	2
CO5	2	2	2	3	2	3	3
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25057 **Tourism Geography** **L T P C**
3 0 0 3

Course Objectives:

This course provides students with a comprehensive understanding of global geography from a tourism perspective. It explores climatic and environmental influences on tourism, regional accessibility, and socio-cultural and physical characteristics of global destinations. Students will analyze tourism flows, plan travel itineraries, and evaluate transportation modes. The course fosters spatial awareness and travel planning skills by examining popular destinations across continents, supporting global tourism knowledge essential for tourism professionals.

Fundamentals of Tourism Geography

Definition, scope, and importance – Relationship between geography and tourism – Impact of weather and climate on destinations – Study of maps: latitude, longitude, time zones, international date line, standard time, summer time (daylight saving) – GMT and time differences – Elapsed time, flying time, and ground time calculations.

Geography of Indian Tourism

Physical factors: Relief, climate, vegetation, wildlife, water bodies – Socio-cultural and economic factors influencing Indian tourism – Political boundaries – Major tourist attractions – Popular modes of travel within India – Seasonal considerations and tourist circuits.

Destinations in Asia, Europe, and Canada

Overview of key countries and tourism hubs – Asia: China, Mongolia, Japan, Korea, Thailand, Philippines, Singapore, Malaysia, Bangladesh, Maldives, Nepal, Pakistan, Sri Lanka – Europe: UK, France, Italy, Spain, Ireland, Turkey, Netherlands, Czech Republic, Austria, Germany, Greece,

Switzerland, Russia, Ukraine – Canada: Ontario, Ottawa, Montreal, British Columbia – Physical features, cultural context, and best times to visit – Access from India.

Tourism Geography of USA, Central & South America

United States: Major states (California, Florida, Texas, New York, Nevada, etc.) – Popular cities and landmarks – Modes of travel – Tourism trends in Central America: Costa Rica, Panama, Guatemala, Belize – South America: Brazil, Chile, Peru, Venezuela, Bolivia, Ecuador – Seasonality and route planning from India.

Africa and the Middle East

Geographic features and travel conditions in major African nations: Kenya, Zimbabwe, Zambia, Egypt, South Africa, Morocco, Uganda, Tanzania, Mauritius – Middle East: UAE, Israel, Saudi Arabia, Iran, Jordan – Political boundaries, culture, and best time to travel – Air routes and travel protocols from India.

Oceania and Global Travel Planning

Tourism geography of Oceania: Australia, New Zealand, Papua New Guinea – Unique physical and cultural features – Accessibility from India – Global tourism flows – Itinerary development – Mapping global attractions – Travel advisories – Sustainable tourism and regional accessibility.

References:

1. Lew, A. A., Hall, C. M., & Timothy, D. J. (2022). World Regional Geography: Human Mobilities, Tourism Destinations, Sustainable Environments, 3rd Edition, Kendall Hunt Publishing.
2. Robinson, H. (1978). A Geography of Tourism, Macdonald & Evans, London.
3. Pearce, D. (2012). Tourism Development: Topics in Applied Geography, Longman Scientific & Technical.
4. Husain, M. (2025). Geography of India for UPSC (English), 11th Edition, McGraw Hill Education. Williams, S. (2015). Tourism Geography: Critical Understandings of Place, Space and Experience, 3rd Edition, Routledge.
5. Boniface, B., & Cooper, C. (2015). Worldwide Destinations: The Geography of Travel and Tourism, 5th Edition, Routledge.

E-Resources

- ✧ National Geographic Travel: https://www.nationalgeographic.com/travel
- ✧ UNWTO: https://www.unwto.org
- ✧ Google Earth for Tourism Mapping: https://earth.google.com
- ✧ CIA World Factbook: https://www.cia.gov/the-world-factbook
- ✧ Lonely Planet Destination Guides: https://www.lonelyplanet.com
- ✧ Travel and Tourism Statistics (India): https://tourism.gov.in

Course Outcomes

On successful completion of the course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of tourism geography fundamentals, Indian tourism, global destinations across all continents, and global travel planning principles.
- **CO2:** Interpret and relate the fundamentals of tourism geography (e.g., climate, time zones) to specific tourist destinations in India and across all continents to understand their appeal and accessibility.
- **CO3:** Apply knowledge of tourism geography fundamentals, the physical and socio-cultural factors of Indian and global destinations, and travel logistics to plan a multi-destination travel itinerary.
- **CO4:** Analyze the relationship between geography and tourism, the physical/socio-cultural factors of various global destinations, and tourism flows to assess travel routes, time zones, and seasonality.
- **CO5:** Evaluate the significance of geographic factors, regional tourism flows, travel advisories, and accessibility from India for destinations in Asia, Europe, the Americas, Africa, and Oceania to make informed travel planning decisions.
- **CO6:** Develop a comprehensive global travel itinerary by synthesizing knowledge of tourism geography fundamentals, specific destinations in India and all continents, and principles of itinerary development, including sustainable tourism and accessibility.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	2	3	2	2	2	3	2
CO3	3	2	3	2	2	2	3
CO4	2	2	3	2	2	3	3
CO5	2	3	2	2	2	2	2
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25058	Culture and Heritage	L T P C 3 0 0 3

Course Objectives:

This course aims to provide a deep understanding of Indian culture and heritage in both traditional and contemporary contexts. It enables students to explore the role of cultural values, diversity, and global cultural interactions in Business and tourism. Students will develop skills in managing multicultural teams and cross-cultural negotiation. The curriculum fosters appreciation for cultural uniqueness, UNESCO heritage preservation, and the impact of global trends on organizational and individual behavior. It prepares students to lead effectively in multicultural and ethically diverse environments.

Foundations of Indian Culture and Heritage

Salient features of Indian culture – Socio-ethnic and religious perspectives – Historical evolution – Cultural transitions – Indian cultural heritage and its significance in tourism and Business – Cultural continuity and change.

Cultural Dimensions and Expressions

Tangible and intangible culture – Languages and literature – Cultural reflections in arts, dance, music, ceremonies, and architecture – Beliefs, perceptions, and rituals – Museums, monuments, and heritage tourism – Religious diversity and its influence on everyday life and workplaces.

Global Cultural Diversity and Tourism Impact

Cultural dissimilarities across nations – Global and national culture mix – Challenges for the tourism and hospitality industry – Influence of global culture on consumer and traveler behavior – Organizational implications of national culture – Cultural impact on personal and professional life.

Cross-Cultural Management and Global Leadership

Frameworks and models of cross-cultural management – Hofstede’s dimensions, Trompenaars' model – Cultural shock and acculturation – Cross-cultural training methods – Managing multicultural teams – Intercultural leadership and ethics – Decision-making and negotiation styles.

Global Heritage Conservation and UNESCO’s Role

UNESCO – Objectives, selection criteria, conventions, and committees – World Heritage Sites – Funding, reporting, and monitoring – Role of local governments and communities – Challenges in heritage conservation – Sustainable practices.

Trends and Technologies in Cultural Management

Impact of IT and digital technologies on heritage management – Virtual museums and digital archives – Cultural marketing – Role of social media in cultural promotion – Cultural festivals, fairs, and international cultural collaborations – Trends in cultural entrepreneurship and tourism.

References:

1. F. R. Allchin (ed.), Conservation of Indian Heritage (with B. Allchin & B. K. Thapar), Cosmo Publications, New Delhi — latest edition published 2016
2. David C. Thomas & Mark F. Peterson, Cross-Cultural Management: Essential Concepts, Sage Publications — 4th edition, December 2016
3. G. Hofstede (with G. J. Hofstede & M. Minkov), Cultures and Organizations: Software of the Mind, HarperCollins/McGraw-Hill Professional, London — 3rd edition, May 24 2010
4. Rajiv Desai, Indian Business Culture – An Insider's Guide, Butterworth-Heinemann, 2019
5. Ananda Das Gupta, Human Values in Management, Ashgate Publishing Ltd.2004
6. S. M. Dewan, Corporate Governance in Public Sector Enterprises, Pearson Longman, 2006

E-Resources:

- ✧ UNESCO World Heritage Centre: https://whc.unesco.org
- ✧ Ministry of Culture, India: https://www.indiaculture.nic.in
- ✧ Cultural Heritage Digitization Portal: https://indianculture.gov.in
- ✧ Intercultural Communication Institute: https://www.intercultural.org
- ✧ Global Edge – Culture Tools: https://globaledge.msu.edu

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of Indian cultural foundations, cultural expressions, global diversity, cross-cultural management models, heritage conservation, and technological trends in cultural management.
- **CO2:** Interpret and relate Indian cultural heritage and expressions to global cultural diversity, cross-cultural management frameworks to UNESCO's conservation efforts, and all of these to the role of technology in cultural management.
- **CO3:** Apply knowledge of Indian cultural traditions, global cultural dimensions, cross-cultural management models, UNESCO's conservation principles, and digital tools to solve a practical cultural or business challenge.
- **CO4:** Analyze the impact of Indian and global cultural diversity, cross-cultural management models (e.g., Hofstede's), UNESCO's role in heritage conservation, and digital technologies to assess their influence on organizations and society.
- **CO5:** Evaluate the influence of cultural diversity on tourism and business, the effectiveness of cross-cultural management models, the success of UNESCO's conservation strategies, and the impact of technology on heritage management to make informed decisions.
- **CO6:** Develop an integrated strategy for cultural management by synthesizing knowledge of Indian cultural foundations, global diversity, cross-cultural management, heritage conservation, and modern technological trends to lead in a multicultural environment.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	1	1	1	3	2
CO2	2	3	2	2	2	2	3
CO3	2	2	3	2	2	3	2
CO4	3	3	3	3	3	2	3
CO5	2	2	2	3	2	3	3
CO6	3	2	3	2	3	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25059 **Tourism Products in India** **L T P C**
3 0 0 3

Course Objectives:

This course aims to provide a holistic understanding of India's diverse tourism products, both natural and man-made, and their potential in enhancing destination attractiveness. It introduces students to India's cultural and heritage wealth, natural resources, and tourism circuits while also addressing contemporary niche tourism markets such as ecotourism, rural tourism, and medical tourism. Students will gain the skills required to plan, promote, and manage theme-based travel itineraries for domestic and international tourists, and to address their varied travel expectations through strategic tourism product development.

Overview of Tourism Products and Heritage Tourism

Definition and characteristics of tourism products – Classification of tourism products – Concept of cultural heritage – Evolution and continuity of Indian culture – Types of heritage tourism – Heritage tourism management – Role of government and private organizations in heritage promotion.

Natural Attractions and Eco-Resources in India

Tourism significance of natural resources – National parks, biosphere reserves, wildlife sanctuaries – Backwater tourism – Hill stations, mountain destinations – Islands and beaches – Unique landscapes: caves and deserts – Environmental and sustainable considerations.

Regional and Thematic Tourism Circuits

Concept and benefits of tourism circuits – Inter-state and intra-state tourism circuits – Religious tourism circuits (Char Dham, Jyotirlingas) – Heritage circuits (e.g., Buddhist circuit) – Wildlife and nature circuits – Planning and promotion of circuit-based tourism.

Manmade Destinations and Urban Attractions

Adventure tourism infrastructure – Manmade attractions: amusement parks, gaming zones, commercial hubs – Urban tourism, shopping, and nightlife – Theme parks and live entertainment – Innovative stays: treehouses, houseboats, homestays – Railway tourism: Palace on Wheels, Deccan Odyssey – Zoological and botanical gardens.

Contemporary and Niche Tourism Products

Concept and development of niche tourism – Ecotourism and rural tourism models – Wellness and medical tourism – Golf tourism, pilgrimage tourism, camping and trekking – Responsible tourism practices – Government initiatives supporting niche tourism.

Destination Management and Tour Packaging

Tourist behavior and destination planning – Thematic itinerary development – Destination branding and marketing – Use of digital platforms for tour planning – Role of travel intermediaries – Managing visitor experience and feedback systems – Case studies on successful tourism products in India.

References:

1. S. P. Gupta (et al.) – Cultural Tourism in India: Museums, Monuments & Arts (Theory and Practice)Indraprastha Museum of Art and Archaeology / D. K. Printworld, 3rd impression, First published 2002; latest edition 2016.
2. Robinet Jacob (et al.) – Indian Tourism Products, Abhijeet Publications, 1st edition 2007 (ISBN 978-8189886011.
3. A. K. Hussain – The National Culture of India, National Book Trust, paperback reprint December 2018 (ISBN 978-8123701462). Originally published 2000.
4. Surendra Sahai – Indian Architecture: Hindu, Buddhist and Jain, Prakash Books, 1st edition 2004 (illustrated volume).
5. The Gazette of India: History and Culture, Vol. 2.
6. Websites Incredible India – the official India Tourism website. Live updates continuously maintained, no edition number.
7. Tamil Nadu Tourism (tamilnadutourism.tn.gov.in) – government site with dynamic content; no editioning.

1. Kerala Tourism (keralatourism.org) – updated portal, no printed or editioned version.

E-Resources:

- ✧ Ministry of Tourism India: https://tourism.gov.in
- ✧ Incredible India Portal: https://www.incredibleindia.org
- ✧ State Tourism Portals (e.g., Kerala, Tamil Nadu)
- ✧ India Heritage Digital Library: https://www.indianculture.gov.in
- ✧ World Heritage Sites India – UNESCO: https://whc.unesco.org/en/statesparties/in

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of Indian tourism product classification, heritage assets, natural attractions, manmade destinations, thematic circuits, niche tourism, and destination management.
- **CO2:** Interpret and relate the characteristics of heritage and natural attractions to the development of tourism circuits and apply this understanding to the strategic management and marketing of both manmade and niche tourism products.
- **CO3:** Apply knowledge of tourism product categories, natural resources, circuit planning, manmade attractions, and niche tourism models to create a theme-based itinerary and destination management plan.
- **CO4:** Analyze the interconnections between heritage and natural tourism products, the development of tourism circuits, the importance of manmade destinations, and the scope of niche tourism to assess their combined impact on destination management.
- **CO5:** Evaluate the potential of heritage sites, natural resources, thematic circuits, manmade attractions, and niche tourism products to make strategic decisions for destination branding and tour packaging.
- **CO6:** Develop a comprehensive travel package and destination management strategy by synthesizing knowledge of all tourism product types, regional circuits, niche tourism models, and visitor feedback systems.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	3	2	2	2	3	3	3
CO3	2	3	3	2	3	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO4	3	2	2	2	2	3	2
CO5	2	3	3	2	3	2	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25060 Accommodation and Housekeeping Management L T P C
3 0 0 3

Course Objectives:

This course provides comprehensive insight into the lodging sector with a strong emphasis on front office and housekeeping operations. It equips students with knowledge of hotel classifications, room tariffs, reservation systems, guest cycle management, and department coordination. It also focuses on the housekeeping function including cleaning protocols, linen and laundry management, pest control, and public area maintenance. Further, it introduces students to infrastructure planning, interior design elements, and value-added services such as concierge, wellness, and Business travel support to ensure a superior guest experience in commercial lodging environments.

Overview of the Hotel Industry and Lodging Operations

Introduction to the hotel industry – Classification of hotels – Types of lodging – Room types – Tariff plans – Organizational structure – Roles and responsibilities of front office staff – Interdepartmental coordination with housekeeping, F&B, maintenance, and security.

Front Office Operations and Guest Management

Room reservation systems – Types of reservations – Guest registration – Lobby and bell desk operations – Guest services – Settlement procedures – Front office accounting – Night audit – Budgetary control – Safety, security, and crisis management – Yield and revenue management.

Structure and Functions of Housekeeping

Importance of housekeeping in hospitality – Organizational structure of housekeeping – Coordination with other departments – Responsibilities of executive housekeeper, assistant housekeeper, floor supervisor, and room attendants – Housekeeping control desk activities – Inventory management.

Housekeeping Practices and Operations

Linen and uniform management – Laundry procedures and equipment – Detergents and stain removal – Housekeeping cleaning agents – Standard cleaning methods – Public area maintenance – Pest control techniques – Health and hygiene protocols in housekeeping.

Infrastructure Planning and Décor Elements

Basics of interior decoration – Colour schemes, furniture types, flooring, lighting, floral arrangements, carpets, and textiles – Planning of guest rooms, public areas, lobbies – Functional aesthetics – Environmentally sustainable interiors and resource optimization.

Ancillary Services and Innovation in Accommodation

Overview of additional hotel services – Concierge and travel desk – Business center and meeting rooms – Wellness and fitness centers – Catering and banqueting – Recreational amenities – Smart technology in lodging – Sustainable practices – Innovation in guest experience.

References:

1. James A. Bardi, Hotel Front Office Management, 5th Edition, Wiley, 2014.
2. Sudhir Andrews, Textbook of Hotel Housekeeping Management and Operations, Tata McGraw Hill, 2008.
3. Jatashankar R. Tiwari, Hotel Front Office and Operations Management, Oxford University Press, 2009.
4. Anutosh Bhakta, Professional Hotel Front Office Management, Tata McGraw Hill, 2012.
5. Ahmed Ismail, Front Office Operations and Management, Cengage Learning.
6. Raghubalan & Smritee Raghubalan, Hotel Housekeeping Operations and Management, 2nd Edition, Oxford, 2007.
7. Casado, M., Housekeeping Management, 2nd Edition, John Wiley & Sons, 2011

E-Resources:

- ✧ Hotel Management Tutorials: https://www.tutorialspoint.com/hotel_front_office_management
- ✧ American Hotel & Lodging Educational Institute: https://www.ahlei.org
- ✧ Cornell Hospitality Reports: https://scholarship.sha.cornell.edu/chrpubs/
- ✧ Hospitality Net: https://www.hospitalitynet.org
- ✧ Ministry of Tourism, India: https://tourism.gov.in

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of hotel classification, front office and housekeeping operations, infrastructure planning, interior design elements, and ancillary services and innovations.
- **CO2:** Interpret and relate hotel industry classifications to front office operations, housekeeping functions to infrastructure planning, and ancillary services to innovation and sustainable practices.
- **CO3:** Apply knowledge of hotel operations, front office procedures (e.g., reservations, night audit), housekeeping practices, décor elements, and ancillary services to manage guest services effectively.

- **CO4:** Analyze the interdepartmental coordination between front office and housekeeping, the impact of décor and infrastructure choices, and the role of ancillary services to assess their effect on guest experience and revenue.
- **CO5:** Evaluate different front office and housekeeping procedures, infrastructure design choices, and ancillary service offerings to make strategic decisions for hotel operations and guest satisfaction.
- **CO6:** Develop a comprehensive accommodation management plan by synthesizing knowledge of hotel classification, front office and housekeeping management, infrastructure design, and innovative ancillary services to provide a superior guest experience.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	2	3	2
CO2	3	3	3	2	3	3	3
CO3	3	2	2	1	2	3	2
CO4	2	2	3	2	2	3	3
CO5	2	2	3	3	2	3	2
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25061 **Travel Media and Public Relations** **L T P C**
3 0 0 3

Course Objectives:

This course explores the dynamic relationship between media, communication, and public relations in promoting tourism. It equips students with foundational knowledge of mass media history, the process of communication message construction, and the skills necessary to write and publish travel content across platforms. It also emphasizes the significance of PR tools in the tourism industry—from hotels to destinations—and trains students to ethically and effectively

manage public relations campaigns in a globalized travel environment. Practical components such as travel scrip twriting, interviews, and content creation are integrated throughout.

Evolution of Mass Media and Its Role in Travel

Historical development of print media in India and globally – Advent of printing – British and American journalism streams – Overview of global mass media – Globalization and newspapers – Role and impact of travel media in tourism promotion – Modern travel communication platforms.

Communication Theory and Message Framing

Principles of effective communication – Message clarity and ethical standards – Interpreting cues in communication – Verbal and non-verbal travel communication – Message construction and self-awareness – Organizing and delivering impactful travel messages – Persuasion and audience psychology.

Travel Writing and Publishing

Identifying newsworthy travel content – Writing travel articles, blogs, reviews – Scripts for travel programs and interviews – Submitting content for travel magazines, guidebooks, coffee table books, websites, and anthologies – Use of visual aids and multimedia – Travel blogging and vlogging dynamics.

Fundamentals of Public Relations

Public relations: definitions, models, and functions – Code of ethics – Grunig and Hunt's four models – Historical evolution of PR – Duties of a PR manager – PR in ancient, colonial, and post-independence India – Corporate PR in the liberalized economy.

PR Tools and Practices in Tourism & Hospitality

Travel and tourism PR tools – Media releases – Hotel and restaurant PR – Destination branding – PR for transportation and attractions – Social media PR practices – Designing campaigns for festivals, events, and exhibitions – Public speaking and stakeholder communication.

Strategic Integration of Media and PR

Role of PR in digital tourism – Crisis communication and reputation management – Influencer marketing in tourism – Integrating travel media with destination branding – Trends in tourism public relations – Future of travel media in a global context – Case studies.

References:

1. Seema Hasan, Mass Communication: Principles and Concepts, 3rd Edition, CBS Publishers & Distributors, 2022.
2. Dennis E. Deuschel (or Deuschl), Travel and Tourism Public Relations, Routledge, no newer edition located (2011 remains the latest).
3. Keval J. Kumar, Mass Communication in India, 5th Edition (Revised & Updated), Jaico Publishing House, 2020 (often listed as 2021 impression in some sources).
4. Annamalai Murugan, Tourism and Public Relations, Kalpaz Publications, 2013 edition.

5. Frank Jefkins, Public Relations Techniques, Butterworth-Heinemann (Elsevier), no updated edition found.
6. Wilcox, Ault & Agee, Public Relations: Strategies and Tactics, Pearson Education.

E-Resources:

- ✧ PR Council: https://prcouncil.net
- ✧ Public Relations Society of India (PRSI): https://prsi.org.in
- ✧ Ministry of Tourism India: https://tourism.gov.in
- ✧ Lonely Planet Travel Writing: https://www.lonelyplanet.com/travel-tips-and-articles
- ✧ HubSpot PR Resources: https://blog.hubspot.com/marketing/public-relations

Course Outcomes

Upon completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the evolution of travel media, communication theory, travel writing, public relations fundamentals, PR tools, and strategic integration of media and PR.
- **CO2:** Interpret and relate the history of mass media to effective communication message construction, travel writing practices to core public relations models, and PR tools to the strategic integration of media and public relations.
- **CO3:** Apply an understanding of media platforms, communication principles, travel writing skills, public relations models, and PR tools to develop content for a tourism promotion campaign.
- **CO4:** Analyze the historical role of media, communication message effectiveness, travel content, PR models, and PR tools to assess the impact of a tourism public relations campaign.
- **CO5:** Evaluate different communication theories, travel writing types, PR models, and strategic integrations (e.g., crisis communication, influencer marketing) to make informed decisions for a tourism brand.
- **CO6:** Develop a comprehensive travel media and public relations strategy by synthesizing knowledge of media history, communication principles, content creation, PR fundamentals, PR tools, and strategic integration for a tourism destination.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	2	2	2	2	3	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO2	3	3	3	2	3	2	3
CO3	3	2	3	2	2	3	3
CO4	2	3	2	3	2	3	2
CO5	2	3	3	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25062 Destination Planning and Management L T P C
3 0 0 3

Course Objectives:

This course is designed to provide students with the knowledge and skills essential to understanding, developing, and managing tourism destinations effectively. It addresses planning strategies, marketing techniques, stakeholder engagement, and sustainable practices for creating competitive tourism destinations. Students will learn to assess destination resources, analyze environmental and market factors, and apply best practices in product development, branding, governance, and eco-friendly tourism management. Emphasis is also given to emerging technologies and responsible tourism trends that shape the future of destination management.

Foundations of Tourism Destination Management

Concepts and elements of a tourist destination – Destination attractiveness – Characteristics of successful destinations – Destination uniqueness – Meaning and principles of Sustainable Tourism Development – Goals and practices in the Indian and global context.

Planning and Development of Tourism Destinations

Traditional and modern approaches to planning – History and influence of planning models – Factors affecting destination development – Stages in destination planning – Strategic destination planning – Environment/resource/market/competitor analysis – Importance and benefits of strategic planning.

Destination Marketing and Product Development

Destination marketing mix – Destination competitiveness and positioning – Distribution channels – Marketing communications and promotional strategies – Segmenting, targeting, positioning (STP) – Destination image and branding – Resort planning and types of development.

Stakeholder Engagement and Governance

Stakeholders in destination development – Roles and responsibilities of Destination Management Organizations (DMOs) – Public-private partnerships – Team building and coordination – Community relations – Use of Information and Communication Technology (ICT) in destination governance – Future of digital destination management.

Sustainability and Responsible Tourism Practices

Integrated Coastal Zone Management – Environmental Management Systems – Eco-friendly initiatives: water conservation, energy efficiency, waste management – Commodification and cultural preservation – Community-based tourism – Responsible tourism practices.

Emerging Trends and Best Practices in Destination Management

Space tourism and futuristic travel – Regenerative tourism – Digital tools and smart tourism ecosystems – Social media and influencer engagement – Global best practices in destination development – National case studies – SWOT-based strategic planning for destinations.

References:

1. C. Gunn (2002), Tourism Planning: Basic Concepts and Cases, Cognizant Publications
2. Krishan K. Kamra (2005), Managing Tourist Destination: Development, Planning, Marketing & Policies, Kanishka Publishers
3. Alastair Morrison (2013), Marketing and Managing Tourism Destinations, Routledge
4. Nigel Morgan, Annette Pritchard & Roger Pride (2011), Destination Branding, 3rd Edition, Butterworth-Heinemann
5. V. T. C. Middleton & Richard Hawkins (1998), Sustainable Tourism: A Marketing Perspective, Butterworth-Heinemann
6. Shalini Singh, Dallen J. Timothy & R. K. Dowling (2003), Tourism in Destination Communities, CABI
7. UNWTO (World Tourism Organization), A Practical Guide to Tourism Destination Management, UNWTO, Madrid, ISBN 978-92-844-1243-3, 2017
8. Ministry of Environment, Forest and Climate Change, The Environment (Protection) Act, 1986 – as amended by the Jan Vishwas (Amendment of Provisions) Act, 2023; includes The Environment (Protection) Act, 1986 and allied Rules (including 2024 & early-2025 amendments)

E-Resources:

- ✧ World Tourism Organization (UNWTO): https://www.unwto.org
- ✧ Ministry of Tourism India: https://tourism.gov.in
- ✧ Global Sustainable Tourism Council: https://www.gstcouncil.org
- ✧ Destination Think!: https://destinationthink.com
- ✧ OECD Destination Development Studies: https://www.oecd.org

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of destination foundations, planning and development models, marketing strategies, stakeholder roles, sustainability practices, and emerging trends in destination management.
- **CO2:** Interpret and relate destination principles to planning approaches, marketing strategies to stakeholder engagement, and sustainability practices to emerging trends for a comprehensive understanding of destination management.

- **CO3:** Apply destination principles, planning models, marketing mix strategies, stakeholder collaboration, and sustainable practices to develop and manage a tourism destination in a practical scenario.
- **CO4:** Analyze the components of a tourist destination, strategic planning factors, marketing strategies, governance models, and sustainability initiatives to assess the competitiveness and attractiveness of a destination.
- **CO5:** Evaluate destination planning models, marketing strategies, governance structures, and sustainable practices to make strategic recommendations for enhancing the performance and appeal of a tourism destination.
- **CO6:** Develop a strategic destination management plan by synthesizing knowledge of destination foundations, planning and marketing models, stakeholder engagement, sustainability practices, and emerging trends to create a competitive and responsible tourism destination.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	3	3	3	2	2	3	3
CO3	3	2	3	2	3	2	3
CO4	2	3	2	3	2	3	2
CO5	3	2	3	2	3	2	3
CO6	3	3	3	2	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25063 **Tour Operations** **L T P C**
3 0 0 3

Course Objectives:

This course provides students with in-depth knowledge of the tour operations industry and its functional areas including itinerary planning, documentation, marketing, costing, and tour execution. It familiarizes learners with the structure of tour operations business, accreditation procedures, and industry standards. Students will gain hands-on skills to design customized tour packages, prepare promotional materials, and manage tours effectively with emphasis on guiding,

safety, and guest satisfaction. The course also addresses current practices in responsible tourism and customer experience management.

Overview of Tour Operations Industry

Definition, nature and evolution of tour operations – Types of tours: inbound, outbound, escorted, guided, FITs, and GITs – Role of tour operators and tourism intermediaries – Mass-market and specialist operators – Collaborative tourism – Factors influencing tour design and product selection.

Itinerary Planning and Tour Design

Itinerary: meaning, types (fixed, customized, group), essential resources and stages of development – Do's and Don'ts in itinerary creation – Steps in launching a tour operations Business – Structure and departments – Pre-tour activities and departure procedures.

Operational Process and Documentation

Tour planning, costing elements, booking procedures – Reservations and vendor contracts – Hotel and transport bookings – Tour budgeting and pricing – Travel insurance – Currency exchange – Cargo services – Government recognition – IATA accreditation – Key documentation – Handling emergencies during tours.

Marketing and Promotion of Tour Packages

Marketing strategies and segmentation – Tour brochure design and contents – Promotional mix – Traditional vs. digital media tools – Tour pricing strategies – Price quotation and costing sheet – Promotion during Indian and World Tourism Day celebrations – Advertising platforms.

Tour Guiding and Escorting Services

Tour guide vs. escort – Roles, skills, and responsibilities – Preparing for a tour: checklists, grooming, etiquette, customer care – Site interpretation – Group management – Safety, first aid, and emergency response – Leading and managing diverse tourist groups – Professional ethics and code of conduct.

Emerging Trends and Professional Practices

Technology in tour operations – CRM systems – Sustainable and responsible tour operations – Legal and ethical issues – Cultural sensitivity – Role of social media and influencers – Virtual and hybrid tours – Contemporary issues in international tour operations.

References:

1. A. K. Bhatia (2012), Business of Travel Agency & Tour Operations Management, Sterling Publishers Pvt. Ltd
2. Jagmohan Negi (2006), Travel Agency and Tour Operation: Concepts & Principles, Kanishka Publishers
3. Lalita Sharma (2010), Travel Agency & Tour Operation, Centrum Press

4. Dennis L. Foster (1991), The Business of Travel: Agency Operations and Administration, Macmillan/McGraw-Hill
5. Sunetra Roday, Archana Biwal & Vandana Joshi (2009), Tourism: Operations and Management, Oxford University Press (India)

E-Resources:

- ✧ IATA Accreditation Guide: https://www.iata.org
- ✧ Ministry of Tourism, India: https://tourism.gov.in
- ✧ UNWTO Tour Operator Guidelines: https://www.unwto.org
- ✧ Travel Weekly – Tour Operator News: https://www.travelweekly.com
- ✧ TripSchool Tour Guide Resources: https://www.thetripschool.com

Course Outcomes

On completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of the tour operations industry, itinerary planning, operational processes and documentation, marketing strategies, tour guiding, and emerging trends and professional practices.
- **CO2:** Interpret and relate tour operations industry fundamentals to itinerary design, marketing strategies to operational processes, and professional guiding skills to emerging trends and ethical practices.
- **CO3:** Apply knowledge of tour operations, itinerary planning, documentation procedures, marketing strategies, and guiding skills to plan and execute a tour for a specific client group.
- **CO4:** Analyze the tour operations industry, itinerary design, operational processes, marketing mix, and guiding practices to assess their impact on tour success, customer satisfaction, and business profitability.
- **CO5:** Evaluate tour design strategies, operational procedures, marketing campaigns, guiding practices, and emerging trends to make strategic decisions for sustainable and customer-centric tour operations.
- **CO6:** Develop a comprehensive tour package and operational plan by synthesizing knowledge of the tour operations industry, itinerary design, documentation, marketing, guiding, and innovative and responsible practices.

Internal Assessment Methodology (100 Marks)::

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO2	3	2	3	2	3	3	3
CO3	3	3	3	2	3	2	3
CO4	2	2	3	3	3	3	3
CO5	3	3	2	2	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25064 **Leisure and Recreation Management** **LT P C**
3 0 0 3

Course Objectives:

This course aims to equip students with a foundational understanding of the evolving leisure and recreation industry. It focuses on the historical, social, and economic dimensions of leisure, sectoral structures, recreational behavior, and contemporary management practices. Students will explore the planning, development, and promotion of leisure and recreation services across various contexts—urban, rural, public, private, and environmental. The course emphasizes sustainability, inclusivity, and technological advancement in leisure management, helping students design and evaluate operational strategies for recreation services.

Understanding Leisure – Evolution and Demand

Historical perspective of leisure – Leisure and its social context – Demand for leisure and participation behavior – Supply of leisure – Leisure spaces, planning and environment – The role of government and urban planning in leisure services – Marketing of leisure services.

Leisure Sectors and the Experience Economy

Leisure provision in the public, private, and voluntary sectors – Cultural and entertainment industries – Urban, coastal, and rural leisure contexts – Role of leisure in the experience economy – Challenges and trends shaping the future of leisure.

Introduction to Recreation and Participation

Definition and types of recreation – Relationship between recreation, leisure, and well-being – Recreational motivations and participation patterns – Popular culture and mass leisure – Work–leisure balance – Leisure as a cultural expression – Concepts of purple leisure.

Recreation Management and Planning

Recreation management theories – Tourism and recreation interface – Recreation resource management – Recreation planning and policy formulation – Gender and socio-economic constraints in recreation – Urban and rural recreation – Recreation motivation and constraints - Relationships between leisure, recreation and tourism.

Environmental and Social Impacts

Recreational demand for wilderness, national parks, and natural areas – Environmental carrying capacity – Sustainable recreation practices – Coastal and marine recreational impacts – Climate change and its effects on outdoor recreation – Environmental ethics and green recreation models.

Emerging Trends and Technology in Leisure and Recreation

Trends in global recreation – Digital and virtual recreation – Use of ICT and smart systems in leisure services – Recreational facility design and innovation – Health and wellness tourism – Community leisure programs – Future of leisure with AI, apps, and gamification.

References:

1. Stephen J. Page & Joanne Connell (2010), Leisure – An Introduction, Pearson Education.
2. George Torkildsen (2012), Leisure and Recreation Management, 5th Edition, Routledge
3. Daniel D. McLean & Amy R. Hurd (2021), Kraus' Recreation and Leisure in Modern Society, 12th Edition, Jones & Bartlett Learning
4. William C. Gartner & David W. Lime (2000), Trends in Outdoor, Recreation, Leisure and Tourism, CABI
5. Chris Ryan (2006), Recreational Tourism – Demands and Impacts, Viva Books

E-Resources:

- ✧ World Leisure Organization: https://www.worldleisure.org
- ✧ Parks and Recreation Magazine (NRPA): https://www.nrpa.org
- ✧ UNWTO Recreation Reports: https://www.unwto.org
- ✧ The Leisure Studies Association: https://leisure-studies-association.info
- ✧ Sustainable Tourism and Recreation Guidelines – UNEP: https://www.unep.org

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of the historical context and demand for leisure, the structure of leisure sectors, recreation motivations and management theories, the environmental and social impacts of recreation, and emerging trends and technologies.
- **CO2:** Interpret and relate the historical evolution of leisure to contemporary leisure sectors, recreational motivations to management and planning, and environmental impacts to emerging technological and sustainable trends.
- **CO3:** Apply leisure and recreation management theories, knowledge of different leisure sectors, and understanding of recreational motivations to plan a recreational program that addresses environmental impacts and integrates emerging technologies.

- **CO4:** Analyze the interrelationship between the demand for leisure, the structure of leisure sectors, recreation management strategies, and environmental and social impacts to assess the effectiveness of a recreational service.
- **CO5:** Evaluate different leisure management theories, recreation planning models, and environmental sustainability practices to make informed decisions for a recreational service that accounts for socio-economic and technological trends.
- **CO6:** Develop a comprehensive leisure and recreation management plan by synthesizing knowledge of the historical context, sector-specific strategies, recreational motivations, environmental impacts, and the integration of emerging technologies and sustainable practices.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	3	2
CO2	2	2	3	2	2	3	2
CO3	3	2	2	2	2	3	2
CO4	3	3	3	2	3	2	3
CO5	2	3	2	2	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25065 **Medical Tourism** **LT P C**
3 0 0 3

Course Objectives:

To provide a comprehensive understanding of healthcare infrastructure in India and its relevance to medical tourism. To explore the global medical tourism landscape, typologies, stakeholders, and emerging trends. To equip students with knowledge of designing medical tourism packages and operations management. To familiarize learners with legal, ethical, and accreditation issues related to international health travel. To examine India's potential in the medical tourism industry and governmental support for its growth.

Healthcare Ecosystem in India

Historical review of Indian healthcare – Levels & types of healthcare services – Disease burden – Public vs Private sector roles – Pharmaceutical and Biotechnology sectors – Health insurance – Financing and delivery challenges in India.

Foundations of Medical Tourism

Medical tourism: Concepts, typologies – Genesis and global evolution – Key benefits – Factors driving global medical tourism – Business models – Stakeholders – Countries promoting medical tourism – Global market trends and dynamics.

Designing Medical Tourism Packages

Steps for designing health tourism products – Tour packaging: Issues and considerations – Regulatory approvals and formalities – Pre-tour, tour, and post-tour arrangements – Role of health insurance – Claim process and coordination.

Legal and Accreditation Aspects

Overview of certifications – Role of NABH and JCI – Legal, ethical, and economic considerations – Environmental implications of medical tourism – Regulatory frameworks governing international patients.

India's Medical Tourism Landscape

Major Indian medical tourism destinations – Services offered – Current and futuristic trends – Market potential – Challenges faced – Measures for overcoming constraints – Government policies and incentives.

Strategic Marketing and Communication in Medical Tourism

Marketing strategies for medical tourism – Role of digital platforms – Brand positioning – Cross-cultural communication – Patient experience management – CRM tools – International collaborations and partnerships.

References:

1. Milica Z. Bookman & Karla R. Bookman (2007), Medical Tourism in Developing Countries, Palgrave Macmillan.
2. Raj Pruthi (2006), Medical Tourism in India, Arise Publishers & Distributors.
3. M. D. Horowitz & J. A. Rosensweig (2007), Medical Tourism – Healthcare in the Global Economy, American College of Physician Executives.
4. S. Kulkarni (2008), Medical Tourism in India, Book Enclave.
5. I. Glenn Cohen (2014), Patients with Passports: Medical Tourism, Law, and Ethics, Oxford University Press.
6. RNCOS (2007), Opportunities in Medical Tourism in India, RNCOS E-Services Pvt. Ltd.

E-Resources:

- ✧ NABH Accreditation: https://www.nabh.co
- ✧ JCI Accreditation: https://www.jointcommissioninternational.org
- ✧ Medical Tourism Association: https://www.medicaltourism.com
- ✧ Government of India, Medical Tourism Portal: https://www.indiahealthcaretourism.com
- ✧ Research papers and case studies on: Google Scholar, PubMed, Scopus

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of the Indian healthcare ecosystem, global medical tourism foundations, package design, legal and accreditation aspects, India's medical tourism landscape, and strategic marketing and communication.
- **CO2:** Interpret and relate the Indian healthcare ecosystem to global medical tourism trends, package design to legal and accreditation frameworks, and India's competitive landscape to strategic marketing and communication.
- **CO3:** Apply knowledge of the Indian healthcare system, global market dynamics, legal and accreditation requirements, and marketing strategies to design a customized medical tourism package.
- **CO4:** Analyze the challenges and opportunities within the Indian healthcare ecosystem, global medical tourism trends, package design considerations, legal frameworks, and strategic marketing to assess their impact on the medical tourism sector.
- **CO5:** Evaluate the effectiveness of various medical tourism package designs, legal and accreditation standards, and strategic marketing and communication efforts to make informed decisions for a medical tourism venture.
- **CO6:** Formulate a strategic plan for a medical tourism venture by synthesizing knowledge of the Indian healthcare ecosystem, global medical tourism trends, package design, legal and ethical considerations, and marketing strategies to ensure sustainable growth.

Internal Assessment Methodology (100 Marks)::

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	1	1	1	2	1
CO2	3	2	2	2	1	3	2
CO3	2	3	3	2	2	2	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO4	2	2	2	3	3	2	2
CO5	3	2	3	2	3	3	2
CO6	3	2	3	3	2	2	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25066 Enterprise, Entrepreneurship and New Business Venturing LT P C
3 0 0 3

Course Objectives:

This course aims to provide learners with a deep understanding of enterprise development, entrepreneurial behavior, and the dynamic environment of new Business venturing. It focuses on entrepreneurial characteristics, stakeholder management, and opportunity identification across Business and social enterprise contexts. Students will learn to assess venture ideas, navigate legal and financial frameworks, and create viable Business models. The course also emphasizes modern entrepreneurial trends such as digital platforms, elevator pitches, and lean startups. Through practical exposure, students will gain skills in Business planning, networking, and entrepreneurial team building for successful new venture creation.

Foundations of Enterprise and Entrepreneurship

Understanding enterprise – Distinction between Business and social enterprises – Stakeholder mapping – Types of enterprises – Entrepreneurial traits, competencies, and behavior – Recent entrepreneurial trends – Entrepreneurial mindset in the Indian and global context.

Entrepreneurial Opportunity Planning and Innovation

The entrepreneurial environment – Environmental scanning – Opportunity recognition and innovation – Techniques for ideation and idea screening – Developing a startup strategy – Tools for evaluating Business potential – Real-world opportunity analysis frameworks.

Risk Management and Legal Frameworks for Startups

Legal aspects of entrepreneurship – Startup regulations and compliance – Role of government and regulatory bodies (DPIIT, Startup India, MSME, SIDBI) – Sources of finance and budgeting – Identifying and mitigating Business risks – Operational and financial planning tools.

Team Formation and Business Planning

Importance of founding teams – Building cross-functional teams – Stages of team formation – Writing a Business plan – Components of a successful plan – Value proposition, revenue models, go-to-market strategies – Financial forecasting – Pitch deck essentials.

Emerging Practices and Digital Tools in New Ventures

Elevator pitching – Personal branding and networking – Use of technology in new ventures – Digital Business models – E-commerce and app-based startups – Assessing market trends, threats, and opportunities – Lean startup methodology – MVP testing.

Implementation and Entrepreneurial Execution

Startup implementation roadmap – Funding rounds – Investor engagement – Incubators and accelerators – Managing growth and scaling up – Intellectual property and startup protection – Exit strategies – Monitoring and evaluating new venture performance.

References:

1. Adams, R., & Spinelli, S. New Venture Creation: Entrepreneurship for the 21st Century, McGraw-Hill, 10th Ed., 2016.
2. Byers, T. H., Dorf, R. C., & Nelson, A. Technology Ventures: From Idea to Enterprise, McGraw-Hill, 5th Ed., 2019.
3. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. Entrepreneurship, McGraw-Hill, 12th Ed., 2023.
4. Kuratko, D. F.Entrepreneurship: Theory, Process, Practice, Cengage Learning, 12th Ed., 2023.
5. Ries, E.The Lean Startup, Crown Business, 1st Ed., 2011.
6. Osterwalder, A., & Pigneur, Y.Business Model Generation, Wiley, 1st Ed., 2010 .

E-Resources:

- ✧ Startup India – Government Portal
- ✧ Harvard Business Review – Entrepreneurship
- ✧ MIT OpenCourseWare – New Enterprises
- ✧ NPTEL – Entrepreneurship Development
- ✧ Y Combinator Startup School
- ✧ Coursera – Innovation & Entrepreneurship Specialization

Course Outcomes

Upon completion of this course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of entrepreneurial traits, opportunity planning, legal and financial frameworks, business planning components, emerging digital tools, and venture implementation strategies.
- **CO2:** Interpret and relate the foundations of enterprise to opportunity planning, legal and financial frameworks to team formation and business planning, and emerging digital tools to the implementation and execution of a new venture.
- **CO3:** Apply knowledge of entrepreneurial traits, opportunity analysis, regulatory frameworks, business plan components, digital tools, and execution strategies to create a business model for a new venture.
- **CO4:** Analyze entrepreneurial concepts, opportunity planning techniques, legal and financial aspects, business plan components, emerging practices, and implementation roadmaps to assess a new venture's viability and potential risks.
- **CO5:** Evaluate entrepreneurial opportunities, legal and financial models, business plans, emerging digital tools, and implementation strategies to make strategic decisions for launching, scaling, and managing a new venture.

- **CO6:** Develop a comprehensive business plan and implementation roadmap by synthesizing knowledge of enterprise foundations, opportunity analysis, legal and financial frameworks, team building, emerging digital tools, and strategic execution to successfully launch a new venture.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	3	3	3	2	2	3	2
CO3	2	3	2	2	3	3	3
CO4	2	3	2	3	2	3	3
CO5	3	3	3	3	3	3	3
CO6	3	3	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25067 **Business Model Innovation** **LT P C**
3 0 0 3

Course Objectives:

This course provides students with a strategic lens to understand, evaluate, and innovate Business models across industries. It examines the frameworks and design processes that help firms differentiate, adapt, and grow in an intensely competitive and dynamic environment. Learners will explore how Business models operate across networks and ecosystems, how they evolve, and how firms can use them as tools for competitive advantage and innovation. The course also introduces methods for performance evaluation, experimentation, and digital adaptation, enabling students to design, test, and refine Business models in real-world contexts.

Foundations of Business Models

Conceptual foundations – Defining Business models – Evolution of Business model theory – The “What, How, Who, and Why” framework – Strategic implications of the framework – Business model vs. Business strategy – Role in value creation.

Design Challenges and Value Dynamics

Challenges in Business model design – Strategic alignment – Stakeholder mapping – Value creation and value appropriation – Revenue logic – Customer-centric design – Competitive and regulatory constraints – Industry-level value dynamics.

Business Model Design and Innovation Process

Strategic design drivers – Business model formulation and innovation – The NICE framework (Novelty, Lock-in, Complementarities, Efficiency) – Business model imitation vs. differentiation – Mapping the innovation process – Design thinking integration.

Sectoral Applications and Organizational Challenges

Application of Business models in different sectors (e.g., FMCG, B2B, media, fintech) – Case studies – Business model transformation in startups and corporates – Organizational inertia – Cultural readiness – Challenges in scaling and sustaining models.

Business Model Performance and Strategic Renewal

Evaluation criteria and metrics – Financial and non-financial KPIs – Key Performance Indicators (KPIs) for Business model tracking – Testing and prototyping – Use of simulation and A/B testing – Strategic pivoting – Adapting models to digital disruption.

Business Models in the Digital and Platform Economy

Business model innovation in the digital age – Platform-based models – Ecosystem thinking – Freemium and subscription-based models – Business models for AI, blockchain, and sustainability – Global and local relevance – Indian startup ecosystem trends.

References:

1. Amit, R., & Zott, C. (2020). Business Model Innovation Strategy: Transformational Concepts and Tools for Entrepreneurial Leaders (1st ed.). Wiley.
2. Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers (1st ed.). Wiley.
3. Teece, D. J. (2009; 1st ed.; with new preface 2011). Dynamic Capabilities and Strategic Management: Organizing for Innovation and Growth. Oxford University Press.
4. Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). “Reinventing Your Business Model,” Harvard Business Review, December 2008.
5. Magretta, J. (2002). “Why Business Models Matter,” Harvard Business Review, May 2002.

E-Resources:

- ✧ MIT Sloan – Business Model Innovation Research
- ✧ HBR – Business Models Collection
- ✧ NPTEL – Strategic Management
- ✧ Coursera – Business Strategy and Innovation Specializations
- ✧ Strategyzer Tools – Business Model Canvas Resources

Course Outcomes

Upon completion of this course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of business model foundations, design challenges, innovation processes, sectoral applications, performance evaluation metrics, and digital/platform-based models.
- **CO2:** Interpret and relate foundational business model concepts to design challenges and value dynamics, innovation processes to sectoral applications, and performance metrics to digital transformation and strategic renewal.
- **CO3:** Apply business model frameworks, design thinking, performance metrics, and digital/platform strategies to a specific business problem to create a customer-centric and value-driven solution.
- **CO4:** Analyze business model foundations, value dynamics, innovation processes (e.g., NICE framework), sectoral challenges, performance data, and digital strategies to assess a business's competitive position and potential for growth.
- **CO5:** Evaluate the effectiveness of different business model designs, innovation strategies, sectoral applications, and performance metrics to recommend a strategic renewal plan that adapts to digital disruption.
- **CO6:** Develop a novel business model by synthesizing knowledge of business model foundations, design challenges, innovation frameworks, sectoral applications, strategic renewal concepts, and the principles of the digital and platform economy.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	3	3	2	2	3	3	2
CO3	3	3	3	3	3	3	3
CO4	2	3	2	3	3	3	2
CO5	2	3	3	3	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25068 **Social Entrepreneurship** **L T P C**
3 0 0 3

Course Objectives:

This course introduces the principles and practices of social entrepreneurship, empowering students to address social challenges through innovative and sustainable solutions. It equips learners with tools for identifying opportunities, designing social value propositions, building social ventures, and scaling their impact. Emphasis is placed on systems thinking, aligning with Sustainable Development Goals (SDGs), applying the Theory of Change, and exploring viable Business models for social impact. Through collaborative workshops, practical insights, and exposure to global and Indian case studies, students will cultivate the mindset, skills, and frameworks required to launch and manage social enterprises.

Foundations of Social Entrepreneurship

Definition of social entrepreneurship – Characteristics of social entrepreneurs – Distinctions between social entrepreneurship, nonprofit leadership, CSR, and commercial entrepreneurship – Role of social ventures in economic and community development – Contemporary relevance.

Creating and Empowering Social Value

Social sector perspectives – Challenges and opportunities in social enterprise development – Constructing and validating the Social Value Proposition – Beneficiary-centered design – Impact-first vs. profit-first logic – Case studies on empowerment and inclusion.

Frameworks and Innovation Models for Social Impact

Understanding the Social Innovation process – Visioning an equitable society – Aligning with Sustainable Development Goals (SDGs) – Designing and implementing the Theory of Change – Systems thinking for complex societal issues – Ethical foundations of innovation.

Structuring and Resourcing Social Ventures

Social enterprise models – Hybrid and nonprofit legal structures – Resource mobilization – Impact investing, grants, and crowdfunding – Strategic partnerships – Marketing strategies and stakeholder engagement for mission-driven organizations.

Measuring, Scaling and Sustaining Impact

Defining and measuring social impact – Metrics, tools, and indicators – Value created vs. value perceived – Revenue generation and sustainability models – Social Return on Investment (SROI) – Replication and scaling strategies – Role of digital media.

Design Thinking and Entrepreneurial Execution

Design thinking for social innovation – Ideation, prototyping, and feedback – Developing a social Business plan – Elevator pitches – Fieldwork/project-based learning – Change-maker mindset – Case presentations and community-based implementation.

References:

1. Wei-Skillern, J., Austin, J., Leonard, H., & Stevenson, H. (2007). Entrepreneurship in the Social Sector. Sage Publications.

2. Bornstein, D., & Davis, S. (2010). Social Entrepreneurship: What Everyone Needs to Know. Oxford University Press.
3. Chahine, T. (2016). Introduction to Social Entrepreneurship. CRC Press.
4. Guo, C., & Bielefeld, W. (2014). Social Entrepreneurship: An Evidence-Based Approach to Creating Social Value. Jossey-Bass / Wiley.
5. Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation. Wiley.

E-Resources:

- ✧ Coursera – Social Entrepreneurship Courses
- ❖ Identifying Social Entrepreneurship Opportunities (Copenhagen Business School)
- ❖ Social Business Models & Planning
- ❖ Becoming a Changemaker (University of Cape Town)
- ❖ Design Thinking for Social Innovation
- ❖ System Thinking for Public Health
- ✧ Skoll Foundation – Thought leadership in social innovation
- ✧ Ashoka.org – Global changemakers network
- ✧ Stanford Social Innovation Review (SSIR)
- ✧ World Economic Forum – Impact Entrepreneurship Hub

Course Outcomes

Upon successful completion of the course, learners will be able to:

- **CO1:** Demonstrate conceptual knowledge of social entrepreneurship, social value creation, innovation frameworks (e.g., SDGs, Theory of Change), venture structuring and resourcing, impact measurement, and entrepreneurial execution.
- **CO2:** Interpret and relate the foundations of social entrepreneurship to social value creation, innovation models to venture structuring and resourcing, and impact measurement to entrepreneurial execution and scaling.
- **CO3:** Apply social entrepreneurship concepts, social value design, innovation frameworks, resourcing models, and impact metrics to develop and plan a social venture through design thinking and execution.
- **CO4:** Analyze the foundations of social entrepreneurship, social value propositions, innovation frameworks, organizational structures, impact measurement tools, and execution processes to assess the viability and sustainability of a social venture.
- **CO5:** Evaluate different social value propositions, innovation frameworks, resource mobilization models, and scaling strategies to recommend a sustainable and impactful path for a social enterprise.
- **CO6:** Develop a comprehensive social business plan by synthesizing knowledge of social entrepreneurship foundations, value creation, innovation models, venture structuring, impact measurement, and design thinking for effective entrepreneurial execution.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	2	1	2	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	3	2	3	3
CO4	2	2	3	3	3	3	3
CO5	3	3	3	2	3	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25069 **Entrepreneurial Marketing** **LT P C**
3 0 0 3

Course Objectives:

This course is designed to equip students with entrepreneurial thinking and agile marketing skills suited for early-stage startups and lean Business environments. It helps learners explore strategies to identify target audiences, test product-market fit through MVPs, and design low-cost, high-impact marketing campaigns. Students will develop practical expertise in digital customer acquisition, pricing strategies, value proposition design, and sales enablement. Emphasis will be placed on crafting a strategic marketing plan tailored to the constraints and opportunities in entrepreneurial ventures, with a focus on content-driven marketing, virality, influencer strategies, and data-based campaign optimization.

Fundamentals of Entrepreneurial Marketing Strategy

Foundations of marketing – Formulating marketing strategies – Customer segmentation and targeting – Entrepreneurial approach to brand positioning – Small Business marketing considerations – Diversity and inclusion in marketing – Current global and Indian trends.

Competitive Landscape and Customer Insight

Defining brand mission, message, and vision – Conducting market research – Buyer personas and pain point analysis – Differentiating new products vs services – Concept testing and MVP feedback loops – Market opportunity mapping and validation.

Pricing and Forecasting for Startups

Pricing in the startup context – Revenue forecasting – Price sensitivity – Dynamic pricing strategies – Demand-based pricing – Bundling, freemium, and pay-as-you-go models – Behavioral pricing considerations – Data-backed decision making.

Promotion Strategies and Audience Engagement

Digital marketing and attribution models – Viral marketing and network effects – Customer journey mapping – Experiential marketing – Inbound, outbound, and inside sales – Influencer and affiliate marketing – Personalization in B2B and B2C – Building sales teams.

Building the Entrepreneurial Marketing Plan

Elements of a marketing plan – Setting objectives and KPIs – Budgeting and media planning – Tracking performance – Funnel management – Campaign control and optimization – Integrating marketing with product development – Case studies.

Testing, Metrics and Scaling

Testing campaign effectiveness – A/B testing – Analytics tools and dashboards – Key startup metrics (CAC, CLTV, churn, etc.) – Conversion optimization – Retention and engagement metrics – Growth hacking – Preparing the pitch: Marketing plan presentation.

References:

1. Capon, N., & Singh, S. S. (2024). Managing Marketing: An Applied Approach (1st ed.). Wiley India.
2. Lodish, L., Morgan, H., Archambeau, S., & Babin, J. (2016). Marketing That Works: How Entrepreneurial Marketing Can Add Sustainable Value to Any Sized Company (2nd ed.). Pearson.
3. Ries, E. (2011). The Lean Startup (1st ed.). Crown Business.
4. Kawasaki, G. (2015). The Art of the Start 2.0: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything (2.0 ed.). Penguin / Portfolio.
5. Patel, N., & Shah, H. (Online Resource). The Startup Marketer's Guide.

E-Resources:

- ✧ Coursera – Entrepreneurial Marketing by Wharton
- ✧ Google Digital Garage – Fundamentals of Digital Marketing
- ✧ HubSpot Academy – Inbound Marketing Certification
- ✧ Harvard Business Review – Startup Marketing Articles
- ✧ Startup Stash – Growth Hacking Tools

Course Outcomes

Upon successful completion of this course, students will be able to:

- **CO1:** Demonstrate conceptual knowledge of entrepreneurial marketing strategies, customer insight and competitive analysis, pricing and forecasting, promotion strategies, marketing plan components, and key performance metrics.
- **CO2:** Interpret and relate marketing fundamentals to customer insights and competitive landscapes, pricing strategies to promotion methods, and marketing plan components to the testing and scaling of campaigns.
- **CO3:** Apply entrepreneurial marketing fundamentals, customer insights, pricing strategies, promotion techniques, and performance metrics to design a comprehensive marketing plan for a new venture.
- **CO4:** Analyze the relationship between entrepreneurial marketing strategies, customer insights, pricing models, promotional campaigns, and key metrics to assess the effectiveness and competitive position of a startup.
- **CO5:** Evaluate entrepreneurial marketing strategies, pricing models, promotional campaigns, and performance metrics to recommend optimization and scaling strategies for a new venture.
- **CO6:** Develop a comprehensive, data-informed entrepreneurial marketing plan and pitch deck by synthesizing knowledge of strategy fundamentals, customer insights, pricing, promotion, and performance measurement for a new business venture.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	3	3	3	2	2	3	3
CO3	2	3	2	3	3	2	2
CO4	3	3	3	3	3	3	3
CO5	3	3	3	3	2	3	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25070	Entrepreneurial Finance	LT P C 3 0 0 3

Course Objectives:

This course equips students with critical financial decision-making skills specific to entrepreneurial ventures. It addresses the valuation of early-stage opportunities, capital sourcing challenges, and deal structuring within private equity and venture capital contexts. Students will learn to assess risk, build financial models, and align funding strategies with long-term goals such as growth or exit. The course also explores the financial dynamics of high-growth startups, including the nuances of forecasting, governance, term sheet negotiation, and harvesting strategies. Through case studies and simulations, learners will gain actionable insights into investor-entrepreneur relationships and startup capital structuring.

Introduction to Entrepreneurial Finance

Overview of entrepreneurial finance – Organizing and financing new ventures – Cost and types of financial capital – Stages of startup evolution – Financing needs across lifecycle – Financial goals and constraints of entrepreneurs – Introduction to capital raising challenges in India.

Financing Options and Trade-Offs

Overview of funding alternatives – Angel investors, friends and family, crowdfunding – Trade-offs in equity vs debt – Term sheet components and impact – Contractual mechanisms between entrepreneurs and financiers – Key legal and financial clauses – Control and dilution.

Valuing Startup Opportunities

Valuing early-stage ventures – Risk assessment techniques – Discounted Cash Flow (DCF) – Real option valuation – Business and financial planning – Capital structure design – Governance, incentive alignment, and deal structuring.

Private Equity and Venture Capital Ecosystem

Venture capital valuation methods – Mechanics of VC and PE funding – Financial statement projections – Seed, early-stage, and growth-stage funding – Limited partners (LPs), general partners (GPs) – Institutional finance vs strategic investors – Crowdfunding platforms in India.

Strategic Growth and Exit Planning

Security structuring and valuation – Scaling and capitalization strategies – Strategic alliances, M&A, and consolidations – Leveraged buyouts (LBOs) – IPOs, acquisitions, and mergers – Exit strategies for investors – Turnaround management for distressed startups.

Entrepreneurial Finance in Practice

Case study discussions – Startup cap table design – Term sheet negotiation roleplay – Entrepreneur-investor alignment – Financial modeling in Excel – Indian and global startup funding case analyses – Current trends in valuation and fintech-enabled financing.

References:

1. Smith, J. K., & Smith, R. L. (2019). Entrepreneurial Finance: Strategy, Valuation and Deal Structure, 2nd ed., Stanford University Press.
2. Leach, J. C., & Melicher, R. W. (2020). Entrepreneurial Finance, Cengage Learning.

3. Sahlman, W. A. (1997). "How to Write a Great Business Plan," Harvard Business Review, HBR Press.
4. Damodaran, A. (2016). Narrative and Numbers: The Value of Stories in Business, Columbia University Press.
5. Metrick, A., & Yasuda, A. (2010). Venture Capital and the Finance of Innovation, Wiley.

E-Resources:

✧ Harvard Business Review – Entrepreneurial Finance Articles

✧ Coursera – Entrepreneurial Finance from University of Maryland

✧ Y Combinator – Startup School

✧ AngelList India – Real-time startup funding data

✧ Startup India – Financial Assistance Schemes

Course Outcomes

Upon successful completion of the course, the student will be able to:

- **CO1:** Demonstrate conceptual knowledge of entrepreneurial finance fundamentals, financing options, startup valuation methods, the private equity and venture capital ecosystem, strategic growth and exit planning, and practical applications in finance.
- **CO2:** Interpret and relate entrepreneurial finance fundamentals to financing options, valuation techniques to VC/PE funding stages, and growth strategies to practical deal structuring and negotiation.
- **CO3:** Apply entrepreneurial finance principles, financing options, valuation methods, VC/PE ecosystem knowledge, and growth strategies to a case study to design a comprehensive financial plan for a new venture.
- **CO4:** Analyze the relationships between entrepreneurial finance concepts, funding options, valuation results, VC/PE deal structures, growth strategies, and practical negotiation scenarios to assess the financial health of a startup.
- **CO5:** Evaluate different financing options, valuation techniques, VC/PE deal structures, and growth and exit strategies to make a strategic recommendation for an entrepreneurial venture.
- **CO6:** Develop a comprehensive financing and growth plan by synthesizing knowledge of entrepreneurial finance principles, financing options, valuation, VC/PE ecosystems, growth/exit strategies, and real-world negotiation practices.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	1	2	2	2
CO2	3	3	3	2	2	3	3
CO3	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3
CO5	2	3	3	2	3	3	2
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25071 **Family Business Management** **LT P C**
3 0 0 3

Course Objectives:

This course enables students to comprehend the strategic, emotional, and managerial complexities unique to family-run business across generations. It covers ownership structures, governance mechanisms, succession planning, and strategic innovation in family firms. Emphasis is placed on transgenerational entrepreneurship, cultural evolution, and the development of future leaders within family enterprises. The course also explores contemporary Indian and global trends in sustaining family Business legacies through innovation, governance, and institutionalization.

Fundamentals of Family Business and Theoretical Perspectives

Introduction to family Business – The three-generation rule – Systems theory and agency theory – Competitive advantages and challenges – Genograms and family messages – Family emotional intelligence and the ECI-U Model.

Ownership Dynamics and Governance Structures

Manager vs. Owner roles – Challenges in governance – Family governance mechanisms – Succession planning and intergenerational communication – Strategic fit and enterprise sustainability – Twelve elements of sustainable strategy in family firms.

Leadership and Successor Development

Traits of responsible leadership – Matching successor attributes with Business needs – Interpersonal relationships in family firms – Role of the CEO in succession – Types of CEOs – Models of leadership transition and power transfer.

Strategic Planning and Innovation in Family Firms

Business life cycles and strategy formulation – Vision and values in family-controlled business – Transgenerational entrepreneurship – Strategic regeneration – Business rejuvenation matrix – Fostering intrapreneurship within the family.

Cultural Change and Organizational Development

Evolution stages of family business – Continuity planning and cultural heritage – Organizational change strategies – Commitment planning – Cultivating organic competencies – Future-proofing family business – Thriving in competitive environments.

Global Trends and Indian Context of Family Business

Global and Indian landscape of family business – Digitalization, ESG, and sustainability in family firms – Role of women and next-gen entrepreneurs – Case studies from Indian Business houses – Family Business transformation and continuity planning in modern economies.

References:

1. Baron, J., & Lachenauer, R. (2021). Family Business Handbook: How to Build and Sustain a Successful, Enduring Enterprise. Harvard Business Press.
2. Aronoff, C. E., & Ward, J. L. (2011). How Families Work Together (A Family Business Publication). Palgrave Macmillan.
3. Poza, E. J., & Daugherty, M. S. (2019). Family Business, 5th Edition, Cengage Learning.
4. Gersick, K. E., Davis, J. A., McCollom Hampton, M., & Lansberg, I. (1997). Generation to Generation: Life Cycles of the Family Business. Harvard Business School Press.
5. Sharma, P. (2014). SAGE Handbook of Family Business. SAGE Publications.

E-Resources:

- ✧ Harvard Business Review: https://hbr.org/ (Search “Family Business”)
- ✧ IFERA – International Family Enterprise Research Academy: https://ifera.org
- ✧ EY Global Family Business Insights: https://www.ey.com/en_gl/family-enterprise
- ✧ Indian School of Business (ISB) Family Business Program: https://www.isb.edu
- ✧ Family Business United: https://www.familyBusinessunited.com

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of family business fundamentals, ownership dynamics and governance, leadership and successor development, strategic innovation, cultural change, and global trends in family firms.
- **CO2:** Interpret and relate family business fundamentals and theoretical perspectives to ownership dynamics, leadership models to strategic planning and innovation, and cultural change to global and Indian contexts.
- **CO3:** Apply theoretical perspectives, governance models, leadership principles, strategic planning frameworks, and organizational development strategies to address complexities in a family business.

- **CO4:** Analyze family business dynamics, ownership structures, leadership models, strategic plans, cultural factors, and global trends to diagnose key challenges and opportunities in a family firm.
- **CO5:** Evaluate governance structures, leadership models, strategic innovation processes, and cultural development strategies to make recommendations for ensuring the continuity and longevity of a family business.
- **CO6:** Design a comprehensive strategic renewal and governance plan by synthesizing knowledge of family business fundamentals, ownership and leadership dynamics, innovation frameworks, cultural change strategies, and modern global trends.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	2	2	-	-	3	2
CO2	3	3	3	2	-	3	2
CO3	2	3	3	-	-	3	2
CO4	3	2	3	2	-	2	3
CO5	2	-	2	-	3	2	3
CO6	3	2	3	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25072 **Intellectual Property Rights** **LT P C**
3 0 0 3

Course Objectives :

This course introduces students to the fundamentals and strategic importance of Intellectual Property Rights (IPR) in innovation-driven economies. It provides comprehensive insights into the types of intellectual property, legal frameworks, and the role of IPR in entrepreneurship, Business strategy, and technology commercialization. Learners will explore the mechanisms of protection, enforcement, valuation, and licensing of IPR assets at national and international levels. The course emphasizes practical understanding of managing IPR within Business models, startups, and collaborative environments to drive sustainable competitive advantage.

Introduction to Intellectual Property Rights

Concept and evolution of IPR – Importance of IPR in Business, innovation, and entrepreneurship – Classification of IPR: Patents, copyrights, trademarks, geographical indications, industrial designs, and trade secrets – Legal foundations and international treaties (WIPO, TRIPS) – Indian IPR policy and legal framework.

Patents – Rights, Procedure, and Strategy

Definition and types of patents – Criteria for patentability – Patent filing process in India and abroad – Provisional and complete specification – Patent prosecution, opposition, and grant – Role of patent attorneys – Strategic patenting in startups and business.

Trademarks, Copyrights, and Industrial Designs

Trademark registration and protection – Infringement and passing off – Branding and trademark strategy – Copyrights and ownership – Industrial design protection – IPR in creative industries – Differences and overlaps among IPR forms – Case law examples.

IP Valuation, Licensing, and Commercialization

IP as an asset – Methods of IP valuation – Licensing models: Exclusive, non-exclusive, cross-licensing – Royalty agreements and revenue models – Technology transfer offices and university–industry collaborations – Business models built on IPR.

IPR Management in Innovation and Entrepreneurship

Integrating IP strategy into Business and product development – IPR in startups and MSMEs – Protecting digital assets and software – Open innovation, IP pooling, and collaborative R&D – Legal and ethical issues in IPR exploitation.

Enforcement, Dispute Resolution, and Future Trends

Infringement and remedies – IPR enforcement mechanisms – Alternate dispute resolution (ADR) in IP – Cyber law and digital piracy – Emerging IPR trends: AI-generated IP, NFTs, biotechnology, and green innovation – Global challenges in IP protection.

References:

1. N.S. Gopalakrishnan & T.G. Agitha – Principles of Intellectual Property, Eastern Book Company
2. B.L. Wadehra – Law Relating to Intellectual Property, Universal Law Publishing
3. P. Narayanan – Intellectual Property Law, Eastern Law House
4. Deborah E. Bouchoux – Intellectual Property: The Law of Trademarks, Copyrights, Patents, and Trade Secrets, Cengage
5. Thomas T. Gordon & Arthur S. Cookfair – Patent Fundamentals for Scientists and Engineers
6. Vivek Suneja – Policy Issues in Intellectual Property Rights, Pearson
7. D. Basheer – Intellectual Property Rights in India, PHI Learning
8. World Intellectual Property Organization – WIPO Intellectual Property Handbook

E-Resources:

- ✧ WIPO Academy – Free IP courses and case studies
- ✧ Patent Office India – Patent filing and IPR guidelines
- ✧ Coursera – Intellectual Property Law – Partner universities like University of Pennsylvania, Duke

- ✧ Swayam – IPR Courses – UGC & NLU-based IPR modules
- ✧ Harvard Business Review – Articles on IP strategy and innovation
- ✧ Google Patents – Database for prior art and patent search
- ✧ [ScienceDirect / ResearchGate] – Scholarly articles on IP commercialization and licensing

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of the foundations and types of Intellectual Property Rights, patent procedures and strategies, trademark and copyright protection, IP valuation and licensing, IPR management in business, and enforcement mechanisms with future trends.
- **CO2:** Interpret and relate the legal foundations of IPR to specific patent, trademark, and copyright procedures, connect IP valuation and licensing to IPR management in innovation, and link enforcement mechanisms to emerging trends and global challenges.
- **CO3:** Apply IPR principles, patent filing processes, trademark and copyright protection, IP valuation methods, and IPR management strategies to protect and commercialize intellectual assets in a real-world scenario.
- **CO4:** Analyze the strategic implications of different IPR types, valuation methods, licensing agreements, IP management practices, and enforcement challenges to assess a firm's competitive advantage and innovation potential.
- **CO5:** Evaluate IP protection strategies, valuation and licensing models, management practices for startups, and dispute resolution mechanisms to make informed recommendations for an organization's IPR portfolio.
- **CO6:** Develop a comprehensive IPR strategy by synthesizing knowledge of foundational concepts, patent/trademark/copyright procedures, valuation, licensing, and management practices to protect, commercialize, and enforce intellectual property in a dynamic business environment.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	2	3	1	1	2	2
CO2	3	3	2	2	1	3	2
CO3	3	2	3	2	2	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO4	3	3	2	2	1	3	3
CO5	3	2	2	2	2	3	3
CO6	2	3	3	2	2	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25073 **Rural Entrepreneurship** **LT P C**
3 0 0 3

Course Objectives:

This course enables MBA students to understand the unique challenges and opportunities in rural entrepreneurship. It equips learners with the tools to identify, assess, and develop sustainable Business models suited to rural contexts, emphasizing inclusive growth, innovation, and grassroots impact. Through exploration of rural markets, funding mechanisms, policy frameworks, and case studies, students will be empowered to build entrepreneurial solutions that enhance rural livelihoods. The course also encourages the application of participatory methods and digital tools to foster rural enterprise development and scale impact.

Concept and Scope of Rural Entrepreneurship

Definition and evolution of rural entrepreneurship – Rural vs. urban entrepreneurship – Characteristics of rural entrepreneurs – Role in rural development and inclusive growth – Types of rural enterprises: Agro-based, handicrafts, retail, services – Rural value chains and linkages with the broader economy.

Rural Resources, Environment, and Enterprise Identification

Resource mapping: Human, natural, and institutional – Identification of rural Business opportunities – Cluster-based development – Value addition and agri-preneurship – Role of local knowledge, skills, and informal economy in entrepreneurship development.

Policy Framework, Schemes, and Institutional Support

Government policies on rural entrepreneurship – Startup India, Stand-Up India, SFURTI, NRLM, MUDRA, PMEGP – Role of NABARD, KVIC, MSME-DI, District Industries Centres (DICs) – Rural incubation centers and industry-academia initiatives – Legal and regulatory requirements.

Business Model Development and Marketing for Rural Ventures

Rural Business model canvas – Costing and pricing in rural context – Access to rural markets and customers – Branding and packaging for rural products – Social media, e-commerce, and digital platforms for market access – SHG-led and cooperative marketing models.

Financing and Risk Management in Rural Entrepreneurship

Sources of finance: formal, informal, and microfinance – Challenges in accessing capital – Credit rating and financial literacy – Insurance and risk mitigation tools – Role of Self Help Groups (SHGs), Farmer Producer Organizations (FPOs), and social capital in financing.

Innovation, Technology, and Sustainability in Rural Enterprises

Grassroots innovations and frugal engineering – ICT and mobile-based solutions for rural ventures – Sustainable practices and circular economy models – Climate-resilient enterprise design – Scaling and replicating rural Business models – Case studies from Indian and global contexts.

References:

1. Katar Singh – Rural Development: Principles, Policies and Management, Sage Publications
2. K. Gopal Iyer – Rural Entrepreneurship Development, Kanishka Publishers
3. Rashmi Bansal – Stay Hungry Stay Foolish
4. Desai Vasant – Dynamics of Entrepreneurial Development and Management, Himalaya Publishing
5. C. S. G. Krishnamacharyulu & Lalitha Ramakrishnan – Rural Marketing: Text and Cases, Pearson
6. C.K. Prahalad – The Fortune at the Bottom of the Pyramid
7. Jaya Prakash Pradhan – Rural Entrepreneurship: Challenges and Opportunities
8. IGNOU Course Material – MSME and Rural Entrepreneurship

E-Resources:

- ✧ Startup India – Policies, schemes, mentorship
- ✧ MSME Portal – Schemes and policies for small and rural enterprises
- ✧ NABARD – Funding and credit support for rural entrepreneurship
- ✧ SFURTI – KVIC – Cluster development schemes
- ✧ World Bank Open Knowledge Repository – Case studies on rural enterprise
- ✧ eGyanKosh – IGNOU – Modules on entrepreneurship and rural development
- ✧ TNAU Agritech Portal – Agri-enterprise insights and examples

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of rural entrepreneurship, resource and opportunity identification, policy frameworks and institutional support, business model development, financing and risk management, and innovation and sustainability in rural enterprises.
- **CO2:** Interpret and relate the foundations of rural entrepreneurship to resource identification and cluster development, institutional support to business model development and marketing, and financing challenges to sustainable innovation and scaling.
- **CO3:** Apply knowledge of rural resources, policy frameworks, business model development, financing options, and innovative technologies to create a viable plan for a rural enterprise.

- **CO4:** Analyze the interdependencies between rural resources, institutional support, business models, financing structures, and innovative technologies to assess the viability and sustainability of a rural venture.
- **CO5:** Evaluate different rural business models, marketing strategies, financing mechanisms, and innovative technologies to recommend a sustainable and scalable path for a rural enterprise.
- **CO6:** Develop a comprehensive business and sustainability plan for a rural enterprise by synthesizing knowledge of foundational concepts, resource identification, policy support, business model development, financing, and technological innovation for grassroots impact.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	2	3	1	1	2	2
CO2	3	3	2	1	2	3	2
CO3	2	2	3	1	1	2	2
CO4	3	3	2	2	2	3	3
CO5	3	3	2	1	1	2	2
CO6	3	3	2	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25074 **Women Entrepreneurship** **LT P C**
3 0 0 3

Course Objectives:

This course aims to equip students with a nuanced understanding of the unique challenges and opportunities in women-led entrepreneurial ventures. It fosters critical analysis of gendered perspectives in entrepreneurship, exposes learners to policy ecosystems, support structures, and case studies of successful women entrepreneurs. Students will develop the capability to design inclusive Business models, secure funding, and overcome social and structural barriers to women

entrepreneurship. The course integrates leadership, innovation, and social impact to drive inclusive and sustainable entrepreneurial ecosystems.

Introduction to Women Entrepreneurship

Definition and evolution of women entrepreneurship – Characteristics and competencies of women entrepreneurs – Historical context and socio-cultural influences on women entrepreneurship – Gender and entrepreneurship: myths, biases, and realities – Role of women entrepreneurs in economic development – Global and Indian statistics on women-owned business.

Entrepreneurial Ecosystem for Women

Government and institutional support: MSME, SIDBI, Start-Up India, MUDRA, Mahila Coir Yojana, TREAD – Role of NGOs, incubators, and women entrepreneur networks – International support structures: UN Women, IFC, Global Women Entrepreneur Platforms – Schemes and policies for capacity building and enterprise development for women.

Identifying Opportunities and Developing Business Models

Opportunity identification in rural and urban sectors – Niche sectors for women: wellness, education, healthcare, fashion, food-tech, etc. – Inclusive innovation and frugal entrepreneurship – Business model canvas – Case study-based learning of women-led startups and SMEs – Gendered approach to customer value proposition.

Financing and Legal Aspects of Women Enterprises

Financial challenges faced by women entrepreneurs – Gender lens investing – Sources of funding: Angel investors, VCs, microfinance, SHGs, grants, and crowdfunding – Preparing Business plans and investor pitches – Legal and regulatory frameworks for women-owned business – Maternity and labour laws impacting women entrepreneurs.

Barriers and Enablers for Women Entrepreneurs

Societal, psychological, and economic challenges – Work-life integration and leadership dilemmas – Managing gender bias and building confidence – Enablers: family support, mentorship, digital platforms, education – Strategies to overcome constraints and scale impact.

Leadership, Innovation, and Impact

Women in leadership and decision-making – Building inclusive teams and culture – Innovation management in women-led enterprises – Impact entrepreneurship and social change – Sustainable and community-driven women entrepreneurship – Future trends and digital transformation.

References:

1. “Women Entrepreneurship in India” by Lall Sahab Singh & Shivani Sharma

2. “Entrepreneurship” by Robert Hisrich, Michael Peters, Dean Shepherd

3. “Entrepreneurship Development and Small Business Enterprises” by Poornima M. Charantimath

4. “Entrepreneurship and Innovation: Global Insights from 24 Leaders” by D. F. Kuratko

5. “Breaking the Glass Ceiling: Women in Management” by Marilyn Loden

6. “The Lean Startup” by Eric Ries

7. “She Walks, She Leads” by Gunjan Jain

8. **Reports from: Ministry of Skill Development and Entrepreneurship, MSME Annual Reports, Niti Aayog Women Entrepreneurship Platform

E-Resources:

- ✧ Swayam Portal – Online courses on entrepreneurship, gender studies, and innovation
- ✧ Coursera/EdX/Udemy – Women in Leadership, Gender and Entrepreneurship specializations
- ✧ Niti Aayog WEP Portal – Resources and case studies on Indian women entrepreneurs
- ✧ MSME.gov.in – Guidelines, schemes, and government support for women-led enterprises
- ✧ World Bank Gender & Development Reports
- ✧ UN Women India – Research, policies, and entrepreneurial support resources
- ✧ StartupIndia and MUDRA Portal – Schemes and startup tools
- ✧ SheCapital, WeHub, Catalyst for Women Entrepreneurship (CWE) – India-based investor/accelerator sites

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of women entrepreneurship's socio-cultural context, the entrepreneurial ecosystem, business model development, financing and legal aspects, key barriers and enablers, and leadership and innovation management.
- **CO2:** Interpret and relate the historical and socio-cultural context of women entrepreneurship to the supportive ecosystem, business model development to financing challenges, and barriers/enablers to leadership and innovation strategies.
- **CO3:** Apply knowledge of the entrepreneurial ecosystem, business model design, financing and legal frameworks, and strategies to overcome barriers to develop a practical plan for a women-led venture.
- **CO4:** Analyze the impact of the entrepreneurial ecosystem, business model choices, financing challenges, and social and structural barriers on the sustainability and growth of women-led enterprises.
- **CO5:** Evaluate business models, financing options, and strategies to overcome barriers and leverage enablers to recommend a sustainable and inclusive growth path for a women-led enterprise.
- **CO6:** Develop a comprehensive business and social impact plan for a women-led enterprise by synthesizing knowledge of the entrepreneurial ecosystem, business model design, financing, legal frameworks, and leadership strategies for sustainable innovation.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	1	2	2	1	2	2
CO2	2	2	2	1	2	2	2
CO3	3	3	2	2	2	3	2
CO4	3	3	3	2	2	3	3
CO5	2	2	3	3	2	2	3
CO6	3	3	3	3	3	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25075 Project Formulation and Feasibility Analysis LT P C
3 0 0 3

Course Objectives:

This course enables MBA students to acquire foundational and advanced knowledge in the domain of project management. It covers the complete life cycle of projects—starting from idea generation, feasibility analysis (market, technical, financial, legal, and socio-environmental), to formulation and appraisal. Students will learn how to structure project reports, apply appraisal techniques like NPV and IRR, and develop project risk control strategies. Emphasis is placed on integrating sustainability, innovation, and risk mitigation into real-world project planning and decision-making. Practical frameworks and tools are introduced through case discussions, simulations, and project-based learning.

Foundations of Project Management and Idea Generation

Introduction to projects and project management – Project characteristics, types, and life cycle – Strategic importance of project selection – Techniques for identifying and screening project opportunities – Innovation and ideation frameworks – Alignment with Business goals.

Market and Technical Feasibility Analysis

Market analysis: Demand assessment, competitor analysis, customer segmentation, market structure – Development of marketing strategy and positioning – Technical analysis: Process and technology selection – Plant capacity – Location and layout – Equipment and infrastructure – Raw material and resource evaluation.

Financial and Economic Feasibility Analysis

Estimation of project cost – Break-even analysis – Working capital and revenue forecasting – Cost of capital and sources of finance – Profitability indicators – Economic feasibility: Cost–benefit analysis, externalities, national income impact, employment generation – Guidelines from COPEX

and standard models.

Socio-environmental and Legal Feasibility

Social impact assessment – Environmental assessment techniques – Stakeholder and community analysis – Sustainability and ESG compliance – Regulatory clearances and legal frameworks – Permits and licenses – Sector-specific compliance and documentation.

Project Formulation and Appraisal

Preparation of detailed project report (DPR) – Structure and content – Executive summary, feasibility sections, implementation schedule – Appraisal methods: Payback Period, Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index, Sensitivity Analysis – Application of appraisal tools in real-world projects.

Project Risk Management and Control

Risk identification: Strategic, operational, financial, environmental – Risk analysis techniques (qualitative and quantitative) – Risk mitigation planning and contingency strategy – Project monitoring systems – Variance analysis, milestone tracking, Earned Value Management (EVM), and control tools.

References:

1. Harold R. Kerzner – Project Management: A Systems Approach to Planning, Scheduling, and Controlling, Wiley, 2022
2. Prasanna Chandra – Projects: Planning, Analysis, Selection, Financing, Implementation, and Review, McGraw-Hill, 2021
3. Jose Maria Delos Santos – Project Formulation and Appraisal, Open Textbook Library
4. Rashmi Agrawal & Yogieta S. Mehra – Project Appraisal and Management, Kunal Books, 2018
5. Eric Verzuh – The Fast Forward MBA in Project Management, Wiley, 2021
6. PMI – A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 7th Ed., PMI Institute, 2021
7. Dennis Cohen & Robert Graham – The Project Manager's MBA, John Wiley, 2000

E-Resources:

- ✧ Coursera: How to Conduct a Feasibility Analysis, Fundamentals of Project Planning
- ✧ Udemy: Economic Feasibility Analysis for Projects, Project Finance and Risk Management
- ✧ PMI Learning: PMI Project Management Essentials, PMBOK® Resources
- ✧ Pertecnica: Project Feasibility Studies – Market, Financial, Risk
- ✧ eGyanKosh – IGNOU: Feasibility and Project Planning Modules (MBA)
- ✧ [ScienceDirect & Emerald Insight](https://www.sciencedirect.com | https://www.emerald.com): Project Planning & Risk Analysis Journals

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of project management fundamentals, market and technical analysis, financial and economic feasibility, socio-environmental and legal compliance, project formulation and appraisal, and risk management and control.
- **CO2:** Interpret and relate project idea generation techniques to market and technical feasibility, financial analysis to socio-environmental and legal compliance, and project appraisal methods to risk management and control.
- **CO3:** Apply project management fundamentals, feasibility analysis techniques (market, technical, financial), socio-environmental considerations, and risk mitigation strategies to a specific project idea.
- **CO4:** Analyze the interdependencies between market demand, technical requirements, financial viability, socio-environmental impact, and project risks to assess the overall feasibility of a project.
- **CO5:** Evaluate project ideas, feasibility analyses, appraisal methods (e.g., NPV, IRR), and risk mitigation plans to make a well-justified go/no-go recommendation for a project.
- **CO6:** Develop a comprehensive Detailed Project Report (DPR) by synthesizing knowledge of project formulation, market and technical feasibility, financial analysis, socio-environmental compliance, and risk management to present a well-structured project proposal.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	2	2	1	1	2	2
CO2	3	3	2	1	1	3	2
CO3	3	3	3	2	1	3	2
CO4	2	2	3	2	2	2	3
CO5	3	3	2	2	2	3	2
CO6	3	3	2	2	1	3	2

Note: 1 – Low, 2 – Medium, 3 – High

MB25076 Designing and Managing Social Business Models LT P C
3 0 0 3

Course Objectives:

This course equips students with the ability to understand, analyze, and design innovative business models that combine financial viability with social impact. Students will explore frameworks like the Business Model Canvas in social contexts, apply social impact measurement tools, and evaluate funding strategies and legal structures for social ventures. The course promotes critical thinking, ethical decision-making, and the development of scalable, sustainable solutions to real-world challenges. Through case studies and experiential tools, learners will develop the competencies needed to lead, manage, and innovate in the social enterprise sector.

Foundations of Social Entrepreneurship and Business Models

Defining social entrepreneurship and social business – Differences from traditional businesses and nonprofits – Importance of social ventures in global contexts – Landscape of social needs and opportunities – Characteristics and typologies of social entrepreneurs.

Designing Social Business Models

Application of Business Model Canvas for social enterprises – Key components: customer segments, value propositions, revenue streams, impact delivery – Hybrid and cross-subsidy models – Integrating social mission with business logic – Innovation in value creation and delivery.

Social Impact Measurement and Management

Theory of Change and impact pathways – Key performance indicators for social outcomes – Tools: SROI, Balanced Scorecard, IRIS+ – Managing trade-offs between impact and revenue – Accountability, transparency, and impact reporting.

Marketing, Scaling and Stakeholder Engagement

Marketing strategies for social impact – Communicating social value to diverse stakeholders – Scaling models: replication, partnerships, franchising – Ecosystem building and systems thinking – Stakeholder mapping and engagement strategies.

Legal and Financial Aspects of Social Businesses

Legal forms for social enterprises: trusts, Section 8 companies, benefit corporations – Choosing the right structure – Revenue strategies and funding sources: grants, equity, debt, crowdfunding, impact investing – Financial sustainability and reporting.

Case Studies, Ethics, and Emerging Trends

Real-world case studies of successful and failed social enterprises – Ethical dilemmas and responsible leadership – Technological trends (AI, blockchain) in social ventures – Future of social enterprise: global movements, policies, and digital inclusion.

References:

1. David Bornstein – Social Entrepreneurship: What Everyone Needs to Know

2. Andrew Wolk – The New Social Entrepreneurship: A Guide to the Future of Business

3. Sir Ronald Cohen – Impact: Reshaping Capitalism to Deliver on ESG and Stakeholder Capitalism

4. Samapti Guha & Satyajit Majumdar – In Search of Business Models in Social entrepreneurship

5. Marzena Starnawska & Agnieszka Brzozowska – Social Entrepreneurship and Social Enterprise Phenomenon

6. Laura Lee & John Davis – Measuring Social Impact: The Guide to Calculating Social Value

7. Alexander Osterwalder & Yves Pigneur – Business Model Generation

E-Resources:

✧ □ Acumen Academy – “Business Models for Social Enterprise” course

✧ □ Coursera & edX – Social entrepreneurship & impact measurement courses

✧ □ Stanford Social Innovation Review (SSIR) – Articles on social innovation

✧ □ Ashoka & Skoll Foundation – Case studies and practitioner resources

✧ □ Social Business Design & Vizologi – Case analysis and model generators

✧ □ World Bank, UNDP, ResearchGate – Reports, white papers, and research databases

Course Outcomes

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

- **CO1:** Demonstrate conceptual knowledge of social entrepreneurship foundations, social business model components, social impact measurement tools, marketing and scaling strategies, legal and financial structures, and emerging trends in the social enterprise sector.
- **CO2:** Interpret and relate social entrepreneurship concepts to business model design, impact measurement and management to scaling and stakeholder engagement, and legal/financial aspects to ethical considerations and future trends.
- **CO3:** Apply social entrepreneurship principles, business model canvas, social impact measurement tools, marketing strategies, and legal/financial considerations to a social venture idea.
- **CO4:** Analyze the interdependencies between a social mission, business model design, impact measurement, scaling strategies, and funding sources to assess the overall viability and sustainability of a social venture.
- **CO5:** Evaluate different social business models, impact measurement frameworks, scaling approaches, and legal/financial structures to recommend a sustainable and impactful path for a social enterprise.
- **CO6:** Develop a comprehensive social business model by synthesizing knowledge of social entrepreneurship foundations, business model design, impact measurement and management, scaling strategies, and legal/financial aspects to address a societal challenge ethically and sustainably.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO–PSO Mapping Matrix:

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	2	3	1	1	2	2
CO2	3	3	2	1	2	3	2
CO3	2	2	3	1	1	2	2
CO4	3	3	2	2	2	3	3
CO5	3	3	2	1	1	2	2
CO6	3	3	2	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High

MB25077 Managing Technology commercialization and innovation LT P C
3 0 0 3

Course Objectives:

This course equips students with the knowledge and competencies required to manage the end-to-end process of bringing technological innovations to market. It covers foundational concepts in innovation and entrepreneurship, technology scouting, opportunity identification, intellectual property rights, and funding strategies. Students will explore commercialization frameworks, Business models for tech ventures, and marketing approaches for disruptive technologies. The course further enables learners to build innovative organizations and respond to emerging trends using collaborative and open innovation strategies.

Foundations of Technology Innovation and Entrepreneurship
Defining technological innovation – Types, drivers, and sources – The role of entrepreneurship in translating innovation into market opportunities – Components of innovation ecosystems involving academia, industry, and government – Institutional support for innovation and commercialization.

Technology Assessment and Opportunity Identification

Technology scouting and forecasting – Trend analysis and disruption potential – Technical and market feasibility – Assessing customer needs and market size – Business opportunity mapping – Strategic fit and competitive positioning of emerging technologies.

Intellectual Property Strategies and Management

Overview of IPRs: Patents, trademarks, copyrights, trade secrets – IP strategy development – Technology licensing, IP valuation – IP management for startups and corporates – Legal frameworks and innovation protection mechanisms.

Funding and Financing Technology Ventures

Funding life cycle – Angel investors, VCs, corporate funding, incubators, and government grants – Startup valuation methods – Preparing investment proposals and pitch decks – Exit strategies and investor relations in the tech space.

Commercialization Strategies and Execution

Designing Business models for technology ventures – Lean startup methodology – Product-market fit – Sales and marketing strategies for tech products – Scaling, team building, and leadership in innovation-driven enterprises.

Building Innovative Organizations and Future Trends

Organizational culture for innovation – Tools for continuous improvement – Open innovation, co-creation, and knowledge sharing – Technology alliances and partnerships – Future innovation landscapes: AI, deep tech, IoT, and sustainability-led innovation.

References:

1. C. Joseph Touhill et al. – Commercialization of Innovative Technologies: Bringing Good Ideas to the Marketplace.
2. Thomas N. Duening et al. – Technology Entrepreneurship: Taking Innovation to the Marketplace.
3. Scott Shane – The Handbook of Technology and Innovation Management.
4. Jerome Schaufeld – Commercializing Innovation: Turning Technology Breakthroughs into Products.
5. Alexander Osterwalder & Yves Pigneur – Business Model Generation
6. Eric Ries – The Lean Startup
7. Joe Tidd & John Bessant – Managing Innovation
8. Peter F. Drucker – Innovation and Entrepreneurship
9. Constance Lütolf-Carroll & Antti Pirnes – From Innovation to Cash Flows
10. S. Ann Becker – Cases on Technology Innovation

E-Resources:

- ✧ Coursera – University of Illinois: Technology Commercialization
- ✧ Swayam – IIM Bangalore: Strategic Management of Innovation
- ✧ Harvard Business Review: Innovation Strategy Articles
- ✧ Y Combinator & Techstars – Startup funding models and mentorship insights

- ✧ [ScienceDirect / ResearchGate / Google Scholar] – Research papers on IP, venture funding, open innovation
- ✧ WIPO – Intellectual property databases and learning resources
- ✧ Startup India Hub – Government programs and grants for tech ventures

Course Outcomes

At the end of the course, the learner will be able to:

- **CO1:** Demonstrate conceptual knowledge of technology innovation and entrepreneurship, technology assessment and opportunity identification, Intellectual Property Rights strategies, funding and financing models, commercialization strategies, and future innovation trends.
- **CO2:** Interpret and relate foundational concepts of technology innovation to opportunity identification, IP strategies to funding and commercialization, and organizational innovation to future trends in the tech space.
- **CO3:** Apply knowledge of technology assessment, IPR management, funding strategies, lean startup principles, and innovation tools to a technology commercialization project.
- **CO4:** Analyze the interdependencies between technological innovation, market opportunities, IPR, funding sources, commercialization strategies, and organizational culture to assess the viability of a new technology venture.
- **CO5:** Evaluate technology assessment frameworks, IPR management strategies, funding options, commercialization models, and organizational innovation practices to recommend a strategic path for a technology-driven enterprise.
- **CO6:** Develop a comprehensive technology commercialization plan by synthesizing knowledge of innovation fundamentals, opportunity identification, IPR management, funding strategies, lean startup methodologies, and open innovation principles for a new venture.

Internal Assessment Methodology (100 Marks):

Component	Weightage
Written Test I & II	60%
Assignment, Presentation, Case Study, Quiz, Simulation, Online Certification, Seminar, Mini project	40%

CO–PO Mapping Matrix :

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
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CO3	3	2	3	1	1	2	2
CO4	3	3	2	2	1	3	3

CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO5	3	2	2	2	2	3	3
CO6	3	3	2	2	2	3	3

Note: 1 – Low, 2 – Medium, 3 – High