



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
(AUTONOMOUS)

Approved by AICTE, New Delhi and Permanently affiliated to JNTUK, Kakinada
L.B. Reddy Nagar, Mylavaram, N.T.R. District, Andhra Pradesh-521230



Master of Business Administration

Vision

To achieve global excellence and leadership position in management education in a holistic manner and become a major Learning Resource Centre to nurture future business leaders.

Mission

1. To promote interactive teaching-learning practices in vibrant environment with technological support.
2. To incorporate an excellent spirit of lifelong learning.
3. To develop multi-facet personality and specifically promote the entrepreneurial mind-set.
4. To proliferate the inter-disciplinary education and to propagate the importance of management education in rural areas.
5. To develop employability potentials through skill-building by utilising various ecosystems.



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Master of Business Administration R24 Course Structure & Syllabus

I Year I Semester

	Course Code	Course Title	Contact Hours/Week				Credits	Scheme of Valuation		
			L	T	P	Total		CIE	SEE	Total
			L	T	P	Total	Cr			
1	24MB01	Management Perspectives & Organizational Behavior	4	-	-	4	4	30	70	100
2	24MB02	Business Economics	4	-	-	4	4	30	70	100
3	24MB03	Financial Accounting & Analysis	4	-	-	4	4	30	70	100
4	24MB04	Quantitative Analysis for Business Decisions	4	-	-	4	4	30	70	100
5	24MB05	Legal & Business Environment	4	-	-	4	4	30	70	100
6	24MB06	Entrepreneurship Development	4	-	-	4	4	30	70	100
7	24OE81	Business Communication and Personality Development	3	-	-	3	3	30	70	100
	24OE82	Information Technology for Business								
	24OE83	Rural Development								
	24OE84	Intellectual Property Rights & Patents								
	24OE85	MOOCs : SWAYAM/NPTEL- (Related to Management Courses other than listed courses in the syllabus)								
8	24MB51	Business Communication and Personality Development Lab	-	-	4	4	2	20	30	50
9	24MB52	Information Technology Lab	-	-	4	4	2	20	30	50
10	24MB53	Entrepreneur Project -I Identifying the area of interest, interacting with successful business and submission of ground report.	-	-	4	4	2	50	-	50
TOTAL			27	0	12	39	33	300	550	850



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Master of Business Administration R24 Course Structure & Syllabus

I Year II Semester

S.No	Course Code	Course Title	Contact Hours/Week				Credits	Scheme of Valuation		
			L	T	P	Total		CIE	SEE	Total
			L	T	P	Total	Cr			
1	24MB07	Financial Management	4	-	-	4	4	30	70	100
2	24MB08	Human Resource Management	4	-	-	4	4	30	70	100
3	24MB09	Operations Management	4	-	-	4	4	30	70	100
4	24MB10	Marketing Management	4	-	-	4	4	30	70	100
5	24MB11	Research Methods for Business Decisions	4	-	-	4	4	30	70	100
6	24MB12	Business Analytics	4	-	-	4	4	30	70	100
7	24OE86	Cross Cultural Management	3	-	-	3	3	30	70	100
	24OE87	Project Management								
	24OE88	Lean Management								
	24OE89	Database Management System								
8	24MB54	R - Programming Lab	-	-	4	4	2	20	30	50
9	24MB55	Tally Lab	-	-	4	4	2	20	30	50
10	24MB56	Entrepreneur Project –II Study on different loan approaches of State and Central Govt. Prepare the Business Development plan.	-	-	4	4	2	50	-	50
TOTAL			27	0	12	39	33	300	550	850

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

II Year I Semester

	Course Code	Course Title	Contact Hours/Week				Credits	Scheme of Valuation		
			L	T	P	Total		CIE	SEE	Total
1	24MB13	Strategic Management	4	-	-	4	4	30	70	100
2	24MB14	Operations Research	4	-	-	4	4	30	70	100
HR Elective Courses										
3	24MB31	Learning and Development	4	-	-	4	3	30	70	100
4	24MB32	Performance and Compensation Management	4	-	-	4	3	30	70	100
5	24MB33	Strategic Human Resource Management	4	-	-	4	3	30	70	100
6	24MB34	Talent Acquisition and Management	4	-	-	4	3	30	70	100
Finance Elective Courses										
7	24MB35	Investment and Portfolio Management	4	-	-	4	3	30	70	100
8	24MB36	Financial Markets and Services	4	-	-	4	3	30	70	100
9	24MB37	Taxation Management	4	-	-	4	3	30	70	100
10	24MB38	Banking institutions and financial reforms	4	-	-	4	3	30	70	100
Marketing Elective Courses										
11	24MB39	Consumer Behavior	4	-	-	4	3	30	70	100
12	24MB40	Retail Marketing	4	-	-	4	3	30	70	100
13	24MB41	Customer Relationship Management	4	-	-	4	3	30	70	100
14	24MB42	Advertising and Brand Management	4	-	-	4	3	30	70	100
Business Analytics Courses										
15	24MB43	Predictive Analytics	4	-	-	4	3	30	70	100
16	24MB44	Text, social media & Web Analytics	4	-	-	4	3	30	70	100
17	24MB45	Essentials of Business Analytics	4	-	-	4	3	30	70	100
18	24MB46	Marketing Analytics	4	-	-	4	3	30	70	100
Artificial Intelligence Courses										
19	24MB47	Introduction to Artificial Intelligence	4	-	-	4	3	30	70	100
20	24MB48	Python Programming	4	-	-	4	3	30	70	100
21	24MB49	Block chain Technology	4	-	-	4	3	30	70	100
22	24MB50	Machine Learning	4	-	-	4	3	30	70	100
23	24MB57	Entrepreneur Project-III Submission of project proposal report to Govt. bodies and applying the proposal to Govt. agencies like (START-UPS/MSME /NABARD/IDBI/SISI) and the same may be submitted to the College with the acknowledgement.	-	-	2	2	1	50	-	50
TOTAL			24	0	2	26	21	230	420	650

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

II Year II Semester

	Course Code	Course Title	Contact Hours/Week				Credits	Scheme of Valuation		
								CIE	SEE	Total
			L	T	P	Total	Cr			
1	24MB15	Corporate Legal Framework	4	-	-	4	4	30	70	100
2	24MB16	Supply Chain Management	4	-	-	4	4	30	70	100
HR Elective Courses										
3	24MB61	Labor Welfare and Employment laws	4	-	-	4	3	30	70	100
4	24MB62	International Human Resource Management	4	-	-	4	3	30	70	100
5	24MB63	Employee Relations and Workplace Culture	4	-	-	4	3	30	70	100
6	24MB64	Human Capital Management	4	-	-	4	3	30	70	100
Finance Elective Courses										
7	24MB65	Corporate Strategic Finance	4	-	-	4	3	30	70	100
8	24MB66	Risk Management	4	-	-	4	3	30	70	100
9	24MB67	Global Financial Management	4	-	-	4	3	30	70	100
10	24MB68	Financial Derivatives	4	-	-	4	3	30	70	100
Marketing Elective Courses										
11	24MB69	Green Marketing	4	-	-	4	3	30	70	100
12	24MB70	Marketing Research	4	-	-	4	3	30	70	100
13	24MB71	Services Marketing	4	-	-	4	3	30	70	100
14	24MB72	Sales and Distribution Management	4	-	-	4	3	30	70	100
Business Analytics Courses										
15	24MB73	Business Intelligence and Data Visualization	4	-	-	4	3	30	70	100
16	24MB74	Artificial Intelligence in Business	4	-	-	4	3	30	70	100
17	24MB75	Financial Analytics	4	-	-	4	3	30	70	100
18	24MB76	HR Analytics Cloud	4	-	-	4	3	30	70	100
Artificial Intelligence Courses										
19	24MB77	Natural Language Processing	4	-	-	4	3	30	70	100
20	24MB78	Augmented Reality & Virtual Reality	4	-	-	4	3	30	70	100
21	24MB79	Deep Learning	4	-	-	4	3	30	70	100
22	24MB80	Data Visualization- Power Bi	4	-	-	4	3	30	70	100
23	24MB58	Main project Submission and Viva-Voce	-	-	8	8	4	-	100	100
TOTAL			24	-	8	32	24	180	520	700

- ✓ **Note: The students opting for dual specialization must select Elective 1 and 2 from first specialization and 3 and 4 from second specialization in III semester.**
- ✓ **The students opting for dual specialization must select Elective 5 and 6 from first specialization and 7 and 8 from second specialization in IV semester.**
- ❖ The project work documentation shall be checked with anti-plagiarism software (Turnitin). The permissible similarity shall be less than 30%.
- ❖ The project shall be done in a chosen specialization (or) He/she can start his own business by showing the proofs such as GST certificate, owner of the firm etc.

COURSES OFFERED (Specializations)

1	Human Resource Management
2	Finance
3	Marketing
4	Business Analytics
5	Artificial Intelligence

Programme Outcomes (PO's)

PO-1	Apply knowledge of management theories and practices to solve business problems.
PO-2	Foster Analytical and critical thinking abilities for data-based decision-making.
PO-3	Ability to develop Value-based Leadership ability.
PO-4	Ability to understand, analyze, and communicate global, economic, legal, and ethical aspects of business.
PO-5	Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

Note: These PO statements are used at the end of each course, an articulation matrix table will display the mapping of Course Outcomes (CO) to Program Outcomes (PO)

I SEMESTER

MBA (I Sem)		L	T	P	Cr
	24MB01 Management Perspectives and Organizational Behavior	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To highlight the evolution of management and pioneering contributions in management practices for getting clarity and applying.
CEO 2	To know the relevance of functions of the management in making decisions.
CEO 3	To know Individual and group behavior in learning, personality, etc in the organizational context.
CEO 4	To understand the Motivation, leadership, and group-related perspectives in organizations.
CEO 5	To study organizational behavior – conflict, stress communication, and development in management.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe the functions and importance of management
CO2	Understand the difference between formal and informal organizations for making effective decisions.
CO3	Interpret the scope of organizational behavior and its significance.
CO4	Demonstrate the impact of motivation and leadership in group dynamics.
CO5	Solve organizational conflicts through negotiation and team building.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2	-	-	-
CO2	1	-	2	1	-
CO3	2	-	3	-	1
CO4	1	2	-	1	-
CO5	1	2	1	-	-

1= Slight (low) 2=Moderate (Medium) 3=Substantial (High)

Prerequisite: Basic Knowledge of social sciences.

Unit – I

Introduction- Definition, Nature, Functions, and Importance of Management – Evolution of Management thought – Scientific management, administrative management, Hawthorne experiments - Levels of Management - Managerial Skills - Planning – Steps in Planning Process – Types of Plans - Essentials of a sound Plan - Management by Objectives (MBO) - Techniques and Processes of Decision Making.

Unit-II

Organizing – Principles of organizing – Formal and Informal Organization– Organization Structure and Design - Delegation of Authority– Span of control – Decentralization – Line and staff structure conflict - Coordination definition and principles - Controlling -Nature and importance, process, Requirements of effective control and controlling techniques.

Unit – III

Organizational Behavior: Nature and scope – Linkages with other social sciences – Individual roles and organizational goals – perspectives of human behavior - Perception– perceptual process – Learning - Learning Process- Theories- (Pavlov, Skinner, and Thorndike) - Personality and Individual Differences - Determinants of Personality - Values, Attitudes, and Beliefs.

Unit – IV

Motivation and Leadership – Definition and nature of motivation, Theories of Motivation (Maslow, Alderfer) - Leadership –Traits-Styles –Leadership skills– Challenges to leaders– Groups – stages formation of groups – Group Dynamics – Collaborative bargaining Processes in Work Groups - Johari - Window theory.

Unit – V

Organizational conflicts-causes and consequences and Negotiation Team Building, Conflict Resolution in Groups and problem-solving Techniques Stress, types of stress causative factors of stress in organizations, preventive measures- Communication, types and process, importance, and barriers – Organizational change - change process - resistance to change – Organizational development and OD interventions.

Relevant case study discussions in all units

Textbooks

1. Knootz Herald, Weihrich. Henz and Arya Sri, “Principles of Management”, MH, New Delhi. 2010.
2. Meenakshi Gupta: “Principles of management”, PHI Pvt., Ltd., New Delhi. 2009.
3. Robbins.P. Stephen (2006), Organizational Behaviour, Pearson Education, New Delhi.
4. Luthans Fred (1998), Organizational Behaviour, Tata Mc Graw Hill International Edition, New Delhi.

References

1. Dilip Kumar Bhattacharya, Principles of Management, Pearson, 2012.
2. Kumar, Rao, Chhaalill “Introduction to Management Science” Cengage Publications, New Delhi
3. V.S.P.Rao, Management Text and Cases, Excel, Second Edition, 2012.
4. K.Anbuvelan, Principles of Management, University Science Press, 2013.
5. K.Aswathappa “Organizational Behaviour-Text, Cases and Games”, Himalaya Publishing House, New Delhi, 2008.
6. Steven L Mc Shane, Mary Ann Von Glinow, Radha R Sharma: “Organizational Behaviour”, TMH Education, NewDelhi,2008

MBA (I Sem)		L	T	P	Cr
	24MB02 Business Economics	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To impart the basic knowledge about the concepts of economics and to equip the students with the analytical tools of Economics and apply the same to rational Managerial decision-making.
CEO2	To delineate the role of demand and demand forecasting for effective decision-making.
CEO3	To develop an economic way of thinking while dealing with production and cost analysis to solve business problems and challenges.
CEO4	To understand the concept of market intelligence and to evaluate the nature of different market structures for sensible economic managerial decisions.
CEO5	To infuse the basic knowledge about the concepts of macroeconomic principles and the skills needed to apply them in making informed, strategic business decisions.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Determine the fundamentals of Economics and Managerial Economics and able to apply them for effective managerial decision-making.
CO2	Evaluate the various decisions of the managers using demand, elasticity demand, and demand forecasting.
CO3	Analyze different theories and concepts of production and cost, so that the cost benefits can be examined for economic decision making.
CO4	Analyze the price-output conditions in market structures and understand pricing methods for effective business decisions.
CO5	Apply knowledge of Macroeconomic concepts and policies in business decisions.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	-
CO2	2	3	2	1	1
CO3	3	2	1	2	2
CO4	3	2	1	2	1
CO5	2	3	2	1	3

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basic knowledge of Economics and business activities

Unit-I

Introduction to Business Economics: Fundamentals of Economics, Economics-Definitions-Nature-Branches of Economics- Significance- Relationship with other disciplines -- The role of managerial economist- Basic economic principles & Concepts.

Unit-II

Demand analysis: Demand- Function – Determinants- Types -Law of Demand; Elasticity of Demand-Types –Factors affecting. Demand forecasting: Definition-Significance-Types-Methods-Survey Method- Statistical Method.

Unit-III

Production Analysis: Definition- Significance, Production function- Cobb-Douglas Production Function, Iso-Quants, and costs of variable proportions & law of returns to scale of production, Economies of scale. Cost Analysis: Cost-Role of cost in business decisions-Cost concepts-cost-output relationship-Cost control and its Techniques-Break-Even Analysis.

Unit- IV

Market Structure and Pricing: Classification of Markets, Competitions, and its Features. Price-Output determination in Perfect competition, Monopoly, and Monopolistic markets. Pricing methods and Strategies, Theories of profit.

Unit-V

Macro Economics and Business Decisions: Concept-Nature-Theories - National Income-measurement- Inflation and Deflation – Types-Causes-factors influencing and Measures, RBI in India & Monetary Policies -Types.

Relevant case study discussions in all units

Textbooks

1. G S Gupta, “*Managerial Economics*”, Tata Mc Graw Hill.
2. P.L.Mehta “*Managerial Economics–Analysis, Problems & Cases*”-Sulthan Chand & Sons
3. H L Ahuja, Business Economics, S. Chand & Co, 13e, 2016.

Reference

1. Dean.Joel: “*Managerial Economics*”, PHI.
2. R.L.Varshney and K.L.Maheshwari, “*Managerial Economics*” 17th Edition, Sultan Chand & Sons
3. Henry and Haynes, “*Managerial Economics*”: Analysis and Cases, Business Publications
4. Keat, 2007, “*Managerial Economics*”, 4th Edition, Thomson
5. H. Craig Petersen, W.C. Lewis, S K Jain, 2006, “*Managerial Economics*” Pearson Managerial
6. Economics and Financial Accounting by Rama Chandran Arya Sri- Tata 3 McGrawHill. 2008.
7. Chaturvedi, Business Economics, International Book House, 2012

MBA (I Sem)		L	T	P	Cr
	24MB03 Financial Accounting and Analysis	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide information about fundamental concepts of financial accounting and make them learn the generally accepted Accounting Principles and Accounting Standards issued by IFRS.
CEO2	To acquaint the students with the fundamental principles of financial, cost, and management accounting and to enable the students to prepare, analyze, and interpret Financial statements.
CEO3	To enable the students to gain knowledge about concepts, principles, and techniques of computing depreciation on fixed assets
CEO4	To create an understanding of funds flow and cash flow statements and make them prepare these statements and to enable the students to use financial data in planning, decision making, and control
CEO5	To enable them to do the financial statement analysis by using the tool financial ratios and able to draw meaningful conclusions about company's financial position.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Develop an awareness and understanding of the accounting process and fundamental accounting principles that underpin the development of financial statements
CO2	Interpret and analyze financial accounting and combine financial analysis with other information to assess the financial performance and position of a company.
CO3	Apply course concepts to analyze common business management decisions such as the valuation of fixed assets and outsourcing decisions from a financial perspective
CO4	Define the nature and role of the financial statements and able to make financial Decision regarding cash and funds flow.
CO5	Identifying the problem areas in business through various ratio techniques can take decisions using management accounting tools

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	-	-	2	-
CO2	2	3	1	1	1
CO3	3	2	-	2	1
CO4	2	2	1	2	-
CO5	-	2	1	3	-

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of trade, commerce, and business

Unit-I

Introduction to Accounting–Nature and Scope-Financial Accounting, Cost Accounting, Management Accounting – Role of Accounting in Modern Organization, Importance, Objectives and Principles, Accounting Concepts & conventions, and the Generally Accepted Accounting Principles (GAAP), Accounting Standards issued by International Financial Reporting Standards. Basics of Fund Accounting, Investment Banking, Corporate Actions, and Reconciliation.

Unit-II

Financial Accounting System–Journal and Subsidiary books, ledger, Trial Balance, Classification of capital and revenue expenses, Final Accounts with adjustments (Sole trading concern).

Unit-III

Valuation of Fixed assets: Tangible vs. Intangible assets, Depreciation of fixed assets, and methods of depreciation (Straight line method, Written down value method, Annuity method). Valuation of Inventory (FIFO, LIFO, Simple average, weighted average methods).

Unit-IV

Funds flow and Cash flow statements: Meaning- Advantages and Limitations – Statement of Changes in Working Capital -Analysis and interpretation of financial statement from investor and company point of view– DuPont Chart.

Unit-V

Financial Statement Analysis–Ratio Analysis: Classifications–Liquidity, Activity, Profitability, Solvency, and Structural ratios–Calculation and interpretation of Predictive power of ratios –Advantages and Limitations of ratio analysis.

Relevant case study discussions in all units

Textbooks

1. Maheshwari SN, Maheshwari SK: “*Financial Accounting*”, Vikas Publishing House Private Limited, New Delhi, 2009,
2. I.M.Pandey: Management Accounting Vikas Publishing House, ND.
3. Dr. Javed Iqbal and Dr. Saima Prof. Naseem Ahmed “Accounting for Managers”- ND Publishers- 2018 edition

References

1. Asish K. Bhattacharyya: “*Essentials of Financial Accounting*”, PHI Private Limited, New Delhi, 2009.
2. Khan. M.Y., Jain. P.K., 2007, Management Accounting –Text, Problems and Cases, 4th Edition, Tata Mc Graw Hill, New Delhi–8
3. N.M. Singhvi, Management Accounting, Text and Cases, Prentice Hall.
4. J.C. Varshney: Financial and Management Accounting, Wisdom Publication.
5. Gupta, 2006, Financial Accounting for Management – An Analytical Perspective, Pearson.

MBA (I Sem)		L	T	P	Cr.
	24MB04 Quantitative Analysis for Business Decisions	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO 1	To apply the quantitative methods for business decision-making.
CEO 2	To understand the topic of linear programming problems and its use in practical problems for optimization.
CEO 3	To assess the concepts of transportation and assignment and their limitations as applied to problems in the industry.
CEO 4	To analyze the usage of various statistical tools to interpret the data.
CEO 5	To identify and evaluate the parts of the queuing system and different types of models.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Apply the need to use a quantitative approach for effective decision-making.
CO2	Demonstrate the topic of linear programming problems and its use in practical problems for optimization.
CO3	Solve Transportation and Assignment problems using appropriate methods.
CO4	Analyze various simple & advanced statistical tools and interpret data
CO5	Evaluate various components of a queuing system and description of each of them.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2			
CO2	1		2	1	1
CO3	2		3		1
CO4	1	2		1	
CO5	1	2			1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge in Mathematics and Statistics

Unit-I

Introduction to Quantitative analysis: History and development of Quantitative Approach, Definitions of Operations Research, Quantitative analysis, and Decision Making, Quantitative analysis vs. Qualitative Analysis.

Decision Theory: Steps of Decision-Making process, Types of Decision-Making environments: Under Uncertainty, under Risk; Decision Trees Analysis.

Unit-II

Linear Programming: Introduction, Basic Assumptions, Structure of linear Programming model, Formulation of LPP, Solution by the Graphical method: Multiple Optimal Solutions, Unbounded Solution, Infeasible Solution; Simplex method. Applications, Advantages, Limitations

Unit-III

Transportation Problem: Mathematical model, IBFS, Test for Optimality and Managerial applications.

Assignment Problem: Mathematical model, Solutions of A.P., Variations of A.P. and Travelling Salesman Method.

Unit-IV

Statistical Inference: Introduction, Hypothesis and Hypothesis testing, Directions, and errors in hypothesis testing, parametric vs. non-parametric tests, Hypothesis Testing for population Parameters with Large Samples (z-test), Hypothesis Testing for population with small samples (t-test), Hypothesis testing based on F-Distribution (F-test), Chi-Square test

Unit-V

Linear correlation: Types of Correlation, Methods of Studying Correlation: Scatter diagram method, Karl Pearson's coefficient of correlation and Rank correlation.

Linear Regression Analysis: Linear and Non-linear regression, lines of regression, coefficients of regression.

Queuing theory: Queuing structure and basic components of Queuing Model, distributions in queuing model, differences in queuing model with FCFS, Queue Discipline, Single and Multiple service servers with finite and infinite populations. Special purpose Queuing Models.

Relevant case study discussions in all units

Text Books

1. Richard I. Levin, David S. Rubin, Statistics for Management, Pearson Education, 7th Edition, 2011.
2. Aczel A.D. and Sounder Pandian J., "Complete Business Statistics", 6th edition, Tata McGraw –Hill Publishing Company Ltd., New Delhi, 2012.

References

1. Srivatsava TN and Shailaja Rego, Statistics for Management, Tata McGraw Hill, 2008.
2. Ken Black, Applied Business Statistics, 7th Edition, Wiley India Edition, 2012.
3. Anderson, Sweeney, Williams, Camm, Martin, Quantitative methods for Business, 12e, Cengage Learning, 2013.

MBA (I Sem)		L	T	P	Cr.
	24MB05 Legal and Business Environment	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To make students understand the issues of the Indian business environment in an integrated manner.
CEO2	To familiarize students with the various political and economic environmental issues.
CEO3	To understand the basic issues of the legal environment legitimately.
CEO4	To know the legal documentation and procedures required to run the business firms such as partnerships and companies.
CEO5	To acknowledge the information regarding the Miscellaneous Act and to manage the business by duly following legality.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand the impact of environmental issues while operating a business.
CO2	Evaluate the political and economic environments of business.
CO3	Describe fundamental laws of business and how to operate firms effectively.
CO4	Analyze documentation process while formation and operation of partnership and company business.
CO5	Apply knowledge of business concepts and functions in an integrated manner through miscellaneous acts.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2	-	2	-
CO2	-	-	-	1	-
CO3	2	-	-	-	-
CO4	1	2	-	1	-
CO5	1	2	-	-	-

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge of business activities.

Unit-I

Introduction: Concept of Business Environment-Definition-Characteristics- Environmental factors, Importance at national and international level – problems and challenges – Environmental Scanning: Importance, Process of scanning- NITI Aayog: It's Role in Economic Development of India- Technological Environment: Features, Its impact on Business, Restraints on Technological Growth.

Unit-II

Economic and Political Environment: Concept-Definition of Economic Environment- Economic Systems- Relative merits and demerits of each system-Economic Policies- Monetary-Fiscal- Industrial policies since independence and their significance – regulatory and promotional framework. Structure of Indian Economy- Nature and significance. Economic Planning- Objectives, Merits, Limitations- Concept and Meaning of Political Environment.

Unit-III

Legal Environment: - Business Law: Meaning, scope and need for Business Law- Source of Business Law- Indian Contract Act 1872: Its Essentials, Breach of Contract, and Remedies. Intellectual Property Rights. Negotiable Instruments Act 1881.

Unit-IV

Company Act 2013: Memorandum and alteration of Articles of Association-Partnership Act 1932: Duties of Partners- Dissolution of Partnership-Information Technology Act 2000: Digital Signature-Cyber Frauds.

Unit-V

Miscellaneous Acts: Sales of Goods Act 1930-Sale- agreement to Sale – Implied Conditions and Warranties- Consumer Protection Act 1986- Competition Act- Environment (Protection) Act 1986- Foreign Exchange Management Act (FEMA).

Relevant case study discussions in all units

Textbooks

1. K. Aswathappa – Essentials of Business Environment, Himalaya Publishing House, 2008.
2. S.N. Maheswari& S.K. Maheswari – A Manual of Business Laws, Himalaya Publishing House, 2013.

References

1. Francis Cherunillam, Business Environment, Himalaya Publishers.
2. K.Aswathappa, Essentials of Business Environment, Himalaya Publishers.
3. P.K.Dhar, Indian Economy Growing Dimensions, Kalyani Publishers4.
4. N.D.Kapoor , Mercantile Law, Sultan Chand Publishers.

MBA (I Sem)		L	T	P	Cr
	24MB06 Entrepreneurship Development	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To enable students to understand the concept of entrepreneurship, entrepreneurial motivation, barriers, theories, and classifications, and to develop entrepreneurial values and attitudes relevant to developing economies.
CEO2	To familiarize students with the problems faced by new ventures during incubation and take-off stages and to create awareness about institutional support systems, financial institutions, government policies, and the role of SIDBI in project management.
CEO3	To help students analyze different types of entrepreneurs, understand the challenges of sick industries, and examine the roles of professionalism, BIFR, and bank syndication in industrial revival.
CEO4	To equip students with knowledge of project concepts, life cycle, feasibility analysis, and project report preparation for effective project planning and evaluation.
CEO5	To develop students' ability to plan and initiate an enterprise by making informed startup decisions related to project selection, enterprise choice, and market assessment.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understanding the concept, theories, motivation, barriers, and values of entrepreneurship in a developing economy.
CO2	Enhance students with the problems faced by new ventures and the institutional, financial, and policy support available for small-scale industries.
CO3	Analyse different types of entrepreneurs and understand the causes, remedies, and revival mechanisms of sick industries.
CO4	Equip students with knowledge of project analysis, feasibility studies, and preparation of project reports.
CO5	Develop the ability to plan and start an enterprise through informed decision-making and market assessment.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	2	1	1
CO2	2	2	1	1	1
CO3	2	2	-	1	2
CO4	1	2	2	3	1
CO5	1	2	2	1	1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic understanding of business, economics, and management concepts.

UNIT -I

Introduction: Definition of Entrepreneur, Entrepreneurial motivation and barriers; Internal and external factors Economic Barriers to Entrepreneurship –Non-Economic Barriers to Entrepreneurship- Theories of entrepreneurship; Classification of Entrepreneurship- Entrepreneurship in Developing Economy – Entrepreneurial Values and Attitudes

UNIT- II

Problems & Support: Incubation and Take-off, Problems encountered Structural, Financial and Managerial Problems, Types of Uncertainty. -Institutional support for new ventures: Supporting organizations; Incentives and facilities; Financial Institutions and Small-scale Industries, Govt. Policies for SSIs. -Role of SIDBI in Project Management.

UNIT -III

Types of Entrepreneurs: Family and non-family entrepreneurs - Role of Professionals, Professionalism vs. family entrepreneurs—Sick industries, Reasons for Sickness, Remedies for Sickness, Role of BIFR in revival, Bank Syndications.

Unit -IV

Project Analysis: Meaning and Definition of Project, Types & Characteristics – Project Phases – Project Life Cycle – Project Family Tree – Feasibility Analysis and Project Report.

Unit -V

Development of Enterprise: Concept and development of Enterprise - Procedure of starting Enterprise – Vital Decision to make during start up: Project Report Preparation, Choice of Enterprise, and Market Assessment of Enterprise.

Relevant case study discussions in all units

Textbooks

1. Couger, C-Creativity and Innovation (IPP, 1999)
2. Nina Jacob, -Creativity in Organizations (Wheeler, 1998) 11
3. Jonne Ceserani -Innovation & Creativity (Crest) 2001.
4. Bridge Setal-Understanding Enterprise: Entrepreneurship and Small Business (Palgrave,2003)
5. Holt-Entrepreneurship: New Venture Creation (Prentice-Hall) 1998

References:

1. Singh P& Bhandarkar A-Winning the Corporate Olympiad: The Renaissance Paradigm(Vikas)
- Dollinger M J-Entrepreneurship (Prentice-Hall, 1999).
2. Tushman, M.L. & Lawrence, P.R. (1997)-Managing Strategic Innovation & Change Oxford.
3. Jones T. (2003)-Innovating at the Edge: How Organizations Evolve and Embed Innovation Capability. Butterwork Heinemann, U. K.
4. Amidon, D. M.(1997)-Innovation Strategy for the Knowledge Economy: TheKanawakening. Butterwork-Heinemann, New Delhi, India.

MBA (I Sem)		L	T	P	Cr
	24OE81 Business Communication and Personality Development	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To communicate effectively in a business context by demonstrating strong interpersonal skills and appropriate body language. They will be able to engage in professional interactions, build rapport, and convey information with clarity.
CEO2	To comprehend and engage with various forms of written and spoken business communication, including reports, presentations, and discussions.
CEO3	To gain the skills to identify areas for improvement, set personal development goals, and take steps to enhance their overall professional growth.
CEO4	To develop confidence in students and to participate in job interviews, group discussions, and other professional settings
CEO5	To make the students proficient in various forms of written business communication.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Communicate effectively in business by exhibiting good interpersonal skills and appropriate body language.
CO2	Enhance listening and reading skills by employing a wide range of business vocabulary.
CO3	Assess their strengths and weaknesses, both in their personality development and productivity.
CO4	Face interviews and group discussions with confidence and attain their realistic goals and objectives.
CO5	Write business letters, memos, reports, e-mails, synopsis, etc., using appropriate language.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	-	-	-	3	3
CO2	-	-	-	3	3
CO3	-	2	2	3	3
CO4	-	-	-	3	3
CO5	-	-	-	3	3

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic knowledge of grammar, vocabulary, and ability to speak, write, and understand simple sentences in English.

Unit-I

Introduction: Role of Communication in Business-Process and Channels of Organizational Communication; Verbal and Non-verbal Communication-Body Language; Cross-Cultural Communication-Problems and Challenges; Barriers to Effective Communication; Interpersonal Vs Intrapersonal Communication.

Unit-II

Functional Listening and Reading & Functional English: Dynamics of Listening - Process involved- Types of Listening; Reading Comprehension- Scanning, Skimming, Reading between lines and Critical Reading; Business English Vocabulary.

Unit-III

Soft Skills: Goal setting, Empathy- Conflict Resolution- Team Building – Leadership qualities – Importance of Teamwork; Time management; Decision Making.

Unit-IV

Presentation Skills: Presentation Strategies – Types of Presentations- Video conferencing- Seminars – Technical Paper Presentation –Group Discussions –Brainstorming Sessions–Participating in Meetings– Formal and Informal Interviews

Unit-V

Business Writing: Business Correspondence- Significance–Letters (Business, complaint, explanation, and Transmittal)- Drafting Memos and Minutes - E-mail Etiquette and Web notes – Executive Summary and Abstract-Fundamentals of Thesis Writing–Business Proposal Writing-Report Writing-Types of Reports.

Relevant case study discussions in all units

Textbooks

1. Meenakshi Raman, “Business Communication”, Oxford University Press, NewDelhi.,2008.
2. Lokesh Mehra et al “Corporate Employability skills”, CEGR, I Edition,2016
3. Wallace and Masters “Personality Development”–Cengage Publishers

References

1. Ramesh & Ramesh, “Ace of Soft Skills”, Pearson Education, New Delhi, 2009.
2. Rizvi Ashraf M., “Effective Technical Communication”, Tata Mc Graw Hill, New Delhi, 2008.
3. Stephen R Covey, The 7 Habits of Highly Effective People, II Edition, Simon and Schuster UK Ltd., 2004.
4. Leo Jones & Richard Alexander, “New International Business English”, Cambridge University Press, New Delhi, 2009.

MBA (I Sem)		L	T	P	Cr
	24OE82 Information Technology for Business	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To provide students with an understanding of the role of information technology and information systems in modern business organizations and their effective management.
CEO2	To familiarize students with information technology infrastructure, including hardware, software, data management, and networking technologies such as the Internet and Intranet.
CEO3	To enable students to understand how information technology can be used to gain competitive advantage through integrated systems, enterprise solutions, and decision support tools.
CEO4	To develop an understanding of intelligent systems in business, including artificial intelligence applications, expert systems, and the ethical and global issues associated with them.
CEO5	To equip students with knowledge of electronic commerce, strategic use of information systems, and modern digital business models for achieving organizational effectiveness.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Understand the role of information technology and information systems in the functioning and management of modern business organizations.
CO2	Create awareness on information technology infrastructure, including hardware, software, data management, and networking systems.
CO3	Understand how information technology supports competitive advantage through enterprise systems, inter-organizational systems, and decision support tools.
CO4	Develop an understanding of intelligent systems in business and their applications, along with associated ethical and global issues.
CO5	Acquire knowledge of electronic commerce and the strategic application of information systems in digital business environments.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	-	1
CO2	2	-	-	-	1
CO3	3	2	-	-	-
CO4	2	1	1	2	-
CO5	2	1	-	1	1

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic knowledge of the fundamentals of computers and their operation.

UNIT-I

Business and Information Technology - Business in the Information Age, Information system, CBIS, Trends in IT Evolution and types of Information Systems, Managing IT in organization.

UNIT-II

Information Technology Infrastructure - Computer Hardware, Software, Managing and Organization of Data and Information - Telecommunication and Networks. The Internet and Intranet (I.O.T).

UNIT-III

Information Technology for Competitive advantage - Inter Organizational Information Systems, Global Information Systems, Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). Enterprise Resource Planning, Data Knowledge, and Decision Support.

14

UNIT-IV

Intelligent Systems in Business - Artificial intelligence and Intelligent Systems - Expert Systems, Intelligent Agents, Virtual Reality, Ethical and global issues of Intelligent systems.

UNIT-V

Electronic Commerce - Foundation, Business to Consumer Applications, Business to Business Applications, Consumer Market Research and other Support, Legal and Ethical issues in E-commerce Strategy, Information Systems, Strategic Advantage, Porter's Competitive Forces model on IT, Business Process Re-engineering, Virtual Corporations, E- Learning, CBI, Information Systems Development Life Cycle (SDLC), Building Internet and Intranet Applications.

Relevant case study discussions in all units

Text Books

1. Turban Rainer and Potter: Introduction to Information Technology, John & Wiley Sons.
2. James O'Brien: Introduction to Information Systems, McGraw Hill Book Company.

References

1. P.K. Vishwanathan, 2003, Business Statistics, An applied orientation” Pearson.
2. Microsoft Office Professional 2010 Step by Step eBook by Joyce Cox, Joan Lambert, and Curtis Frye.
3. Introduction to Computers and Communications, Peter Norton-Sixth Edition-Tata McGraw-Hill.

MBA (I Sem)		L	T	P	Cr
	24OE83 Rural Development	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To facilitate the students to understand the basic nature of rural society in India
CEO2	To appraise students about the Rural Local Administration
CEO3	To provide insights on rural demography and rural economy in India
CEO4	To provide insights on various processes and challenges of agriculture in India
CEO5	To make students aware of the rural market structure in India

Course outcomes (COs): At the end of the course, students will be able to

CO1	Describe the key aspects of rural society in India
CO2	Describe the rural local administration
CO3	Analyze the dynamics of local rural population and local rural economy
CO4	Explain the processes and challenges of agriculture in India
CO5	Summarize the components and implications of land tenure systems and land reforms in India.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	-	1
CO2	2	-	-	-	1
CO3	3	2	-	-	-
CO4	2	1	1	2	-
CO5	2	1	-	1	1

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Pre-requisite: Basic understanding of socio-economic conditions and rural society.

Unit-I

Rural Development: Concept, Importance, Nature and scope, Characteristics of rural economy, human capital of development- Distinction between development and growth, Indicators of rural development, problems & issues in rural development.

Unit – II

Rural Management: Nature, Scope and challenges in marketing operations, human and financial resources in rural areas. Entrepreneurship opportunities in rural areas, Agricultural production, productivity and backwardness, Social and Economic structure of rural India and its economic development.

Unit – III

Rural Community Development: M.D.G -Concept of community, Function of Community, PURA model, Community profile: Process and tools. Community development: Characteristics, Principles and scope, Panchayat Raj and community development in India.; Zilla Parishad - structure, powers, function, working and problems in Rural Administration.

Unit – IV

Sustainable Development: Biodiversity and its conservation, Environmental pollution, air, water and soil pollution., Rainwater harvesting Watershed management. Social security schemes in India-DDP-CRSP-NHRDP-DWACRA- DRDA-Health care programmes.

Unit-V

Concept and Scope of Rural Market, Characteristics of rural markets, Environmental factors: Micro and Macro marketing environment, Marketing planning process, Introduction to services marketing. Fundamentals of Rural Demography and Economics: Rural population –process of development-GATT- WTO-SEZ-CSR-NAIS.

Relevant case study discussions in all units

Text Books:

1. Satya Sundaram, I. *Rural Development*, Himalaya Publishing House, New Delhi.
2. Desai, A.R. *Rural Development in India*, Himalaya Publishing House, New Delhi.
3. Singh, Katar. *Rural Development: Principles, Policies and Management*, Sage Publications, New Delhi.

References:

1. Satya Sundram, I. “Rural Development” Himalaya Publishing House, New Delhi.
2. K. Venkata Reddy-Agricultural and rural Development-Himalaya publishing house

MBA (I Sem)		L	T	P	Cr
	24OE84 Intellectual Property Rights	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To introduce the concept and scope of Intellectual Property Rights.
CEO2	To develop knowledge of patent and copyright systems.
CEO3	To create awareness of trademark protection and enforcement.
CEO4	To provide knowledge of industrial design protection and layout designs.
CEO5	To familiarize students with cyber laws governing digital transactions.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Describe different kinds of intellectual property rights and their significance.
CO2	Demonstrate patent and copyright laws, registration procedures, rights, and remedies.
CO3	Understand trademark registration, infringement, and legal remedies.
CO4	Summarize design registration, cancellation, and semiconductor layout design laws.
CO5	Analyze the IT Act 2000, e-commerce regulations, digital signatures, and cybercrimes.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	-	1	2	-
CO2	2	-	2	1	1
CO3	1	2	1	2	2
CO4	2	2	1	2	1
CO5	2	3	2	1	1

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Pre-requisite: Basic understanding of law, computers, and information technology concepts.

Unit-I

INTRODUCTION TO IPR: Meaning of property, Origin, Nature, Meaning of Intellectual Property Rights –Kinds of Intellectual property rights—Copy Right, Patent, Trademark, Trade Secret and trade dress, Design, Layout Design, Geographical Indication, Plant Varieties and Traditional Knowledge.

Unit-II

PATENT RIGHTS AND COPY RIGHTS— Origin, Meaning¹g⁸ of Patent, Types, Inventions which are not patentable, Registration Procedure, Rights and Duties of Patentee, Assignment and license, Restoration of lapsed Patents, Surrender and Revocation of Patents, Infringement, Remedies & Penalties. COPY RIGHT—Origin, Definition &Types of Copy Right, Registration procedure, Assignment & license, Terms of Copy Right, Piracy, Infringement, Remedies, Copy rights with special reference to software.

Unit-III

TRADEMARKS— Origin, Meaning & Nature of Trademarks, Types, Registration of Trade Marks, Infringement & Remedies, Offences relating to Trade Marks, Passing Off, Penalties.

Unit-IV

DESIGN- Meaning, Definition, Object, Registration of Design, Cancellation of Registration, International convention on design, functions of Design. Semiconductor Integrated circuits and layout design Act-2000.

Unit-V

BASIC TENENTS OF INFORMATION TECHNOLOGY ACT-2000 – IT Act - Introduction
E-Commerce and legal provisions E- Governance and legal provisions Digital signature and Electronic Signature. Cybercrimes

Relevant case study discussions in all units

TEXTBOOKS:

1. Intellectual Property Rights and the Law, Gogia Law Agency, by Dr. G.B. Reddy
2. Law relating to Intellectual Property, Universal Law Publishing Co, by Dr.B.L.Wadehra
3. IPR by P. Narayanan
4. Law of Intellectual Property, Asian Law House, Dr.S.R. Myneni

MBA (I Sem)		L	T	P	Cr
	24OE85 MOOCs : SWAYAM/NPTEL- (Related to Management Courses other than listed courses in the syllabus)	3	-	-	3

NOTE: Students opting for SWAYAM should register for 12 weeks course and need to produce the Pass certificate with minimum 40% (Percentage) for receiving the Academic Credits. The actual percentage mentioned on the certificate will be transferred to the marks memo.

MBA (I Sem)		L	T	P	Cr.
	23MB51 Business Communication & Personality Development LAB –I	-	-	4	2

Course Educational Objectives (CEOs): In this course, the students learn

CEO 1	To demonstrate a high level of proficiency in administrative and professional skills, including time management, organization, and effective use of office tools and software.
CEO 2	To interpret and present ideas relevantly within team discussions.
CEO 3	To deliver engaging and effective presentations and public speeches using appropriate language and communication techniques.
CEO 4	To possess the skills to craft impressive resumes and exhibit proper etiquette and confidence during job interviews.
CEO 5	To develop highly effective communication skills, both written and verbal, which are essential for success in administrative and professional roles

Course outcomes (COs): At the end of the course, students will be able to

CO1	Acquire proficiency in Administrative and Professional Skills.
CO2	Interpret and present ideas relevantly while discussing in teams.
CO3	Acquire expertise in presentations and public speeches with effective language.
CO4	Prepare an impressive resume and face interviews with etiquette and confidence.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	-	1	1	3	2
CO2	-	1	1	3	3
CO3	-	1	1	3	2
CO4	-	1	1	3	2
CO5	-	1	1	3	2

1=Slight(low),2=Moderate (Medium),3=Substantial (High)

Pre-requisites: Fundamentals in English

Syllabus: Business Communication Lab (BCS) shall have two parts:

Computer Assisted Language Learning (CALL) Lab for 60 students with 60 systems, LAN facility, and English language software for self-study by learners.

Interactive Communication Skills (ICS) Lab. with movable chairs and audio-visual aids with a P.A System, a T.V., a digital stereo – audio & video system and camcorder etc.

Unit-I

ICS LAB- Ice- Breaking Activity–Introducing Oneself- JAM-Extempore

Unit-II

ICS LAB- Group Discussion–Issues related to Industry & Business–Discussions on News Articles

Unit-III

ICSLAB-Public Speeches–TV Programme Analysis–Ad making.

Unit-IV

ICS LAB-Seminar Talk- Poster Presentations and PowerPoint Presentations (Industry and Business)

Unit-V

ICS LAB-Writing Resume and Job Cover Letter; Interview Skills–Types and Process of Interviews–Strategies.

Textbooks

1. Effective Technical Communication by M Ashraf Rizvi., Publisher: TATA Mc Graw- Hill
2. Personality Development & Soft Skills by Barun K. Mitra.

Suggested Software

1. Digital Mentor: Globarena, Hyderabad,2005
2. Sky Pronunciation Suite: Young India Films,Chennai,2009

Virtual English and Communication

(Any four from the list given below)

Business Communication

Business Communication is any communication that encourages a product, a type of service, or an organization to enhance sales prospects. <https://ve-iitg.vlabs.ac.in/Business%20Communication.html>

Common Errors in English

The Common Errors in English module is intended to help users avoid the common mistakes made in the use of the English language. <https://ve-iitg.vlabs.ac.in/Common%20Error.html>

Communication Skills

The Common Errors in English module is intended to help users avoid the common mistakes made in the use of the English language. <https://ve-iitg.vlabs.ac.in/Communication%20Skill.html>

Grammar

Grammar is the methodical study and description of the structure of a language. <https://ve-iitg.vlabs.ac.in/Grammer.html>

Technical communication

Technical communication is a style of writing which enables readers to understand a processor concept. <https://ve-iitg.vlabs.ac.in/Technical%20Communication.html>

Vocabulary

Vocabulary is the knowledge of words and word meanings and is a prime tool for communication in a language. <https://ve-iitg.vlabs.ac.in/Vocabulary.html>

Reading and Comprehension

Reading comprehension involves the same as how well an individual grasps what is read. <https://ve-iitg.vlabs.ac.in/Reading%20and%20Comprehension.html>

Listening Skills

Active listening is a form of listening that emphasizes what a person says and involves an understanding of the context of the message as well as the emotions underlying it.

<https://ve-iitg.vlabs.ac.in/Listening%20Skills.html>

MBA (I Sem)		L	T	P	Cr.
	24MB52 Information Technology Lab	-	-	4	2

Course Educational Objective (CEOs): In this course, the students will learn.

CEO1	To equip students with the basic information technologies available for improving managerial performance.
CEO2	To Identify and operate basic components of the computer and Microsoft Word.
CEO3	To recognize major components of the PowerPoint window and create a presentation.
CEO4	To point out major components of the Excel window.
CEO5	To create, add, modify, and delete records from a database.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand the computer fundamentals, computer software, and functions of operating systems.
CO2	Define MS Office software, learn how to open, save, and print existing files, and apply formatting techniques to produce professional documents.
CO3	Determine layout to achieve desired formatting and calculations for accurate workbook design
CO4	Design and develop presentation content to create presentation slides by entering text, data, and graphics.
CO5	Create a relational database using given data.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	-	1
CO2	2	-	-	-	1
CO3	3	2	-	-	-
CO4	2	1	1	2	-
CO5	2	1	-	1	1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic knowledge of the fundamentals of computers and their operation.

Exercise-I:

Fundamentals of Computer: CPU, Basic logic gates, Computer Memory and Mass storage devices, Computer Hierarchy, Input Technologies, Output Technologies, Number Systems and Arithmetic: Decimal, Binary, Octal, and Hexadecimal Number Systems, Binary Arithmetic.
Computer Software: Application and System Software, Programming Languages and their Classification, Assemblers, Compilers and Interpreters, Process of Software Development.
Operating Systems- Functions of Operating Systems, Types of Operating Systems (Batch Processing, Multitasking, Multiprogramming and Real-time Systems)

Exercise -II

MSWord: Text Basics, Text Formatting and saving files, Working with Objects, Header & Footers, working with bullets and numbered lists, Tables, Merging Documents, Sharing and Maintaining Documents, Proofing the document, Printing.

Exercise -III

Introductory concepts of MS-EXCEL: Introduction to Excel, formatting Excel workbook, Perform Calculations with Functions, Sort and Filter Data with Excel, Lookup Functions, Data Validations, Logical Functions, WHAT IF ANALYSIS, Protecting and Sharing the workbook, Use Macros to Automate Task, Proofing and Printing.

Working with charts: Charts and Slicers, Create Effective Charts to Present Data Visually, Analyze Data Using PivotTables and Pivot Charts, Array Functions, EXCEL DASHBOARD

Exercise-IV

MS POWER POINT: Setting Up PowerPoint Environment, creating slides and applying themes, working with bullets, and numbering, Working with Objects, Hyperlinks, and Action Buttons, Working with Movies and Sounds, Animation and Slide Transition, and Slide show options.

Exercise-V

Introduction to MS-ACCESS: Exploring Access Environment, designing a Database, creating a Relational Database in Access, Managing Data in a Table, querying a Database, Designing Forms, and Working with Reports.

Photoshop: Basic utilities and tools, that help them to edit a photograph, toolbars, saving files, Using help and resources.

Introduction to Google Forms: Creating, sharing.

Relevant case study discussions in all units

Textbooks

1. Fundamentals of Computers by E. Bala Gurusamy, Publisher: McGraw Hill Education
2. Learning Microsoft® Office 2013 Deluxe Edition Pearson.
3. Foundations of IT, Dhiraj Sharma, Excel books.

References

4. P.K. Vishwanathan, 2003, Business Statistics, An applied orientation” Pearson.
5. Microsoft Office Professional 2010 Step by Step eBook by Joyce Cox, Joan Lambert, and Curtis Frye.
6. Introduction to Computers and Communications, Peter Norton-Sixth Edition-Tata McGraw-Hill.

MBA (I Sem)		L	T	P	Cr.
	24MB53 Entrepreneur Project –I	-	-	4	2

Identifying the area of interest, interacting with successful business and submission of ground report.

II SEMESTER

MBA (II Sem)		L	T	P	Cr
	24MB07 Financial Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the fundamental concepts, nature, scope, and evolution of financial management in modern organizations.
CEO 2	To analyze financing decisions, sources of funds, cost of capital, and leverage to optimize a firm's capital structure.
CEO 3	To develop the ability to make sound investment decisions using capital budgeting techniques and time value of money concepts.
CEO 4	To evaluate dividend policies, payout strategies, and understand their impact on shareholder wealth and firm valuation.
CEO 5	To manage liquidity and working capital effectively, including cash, receivables, and inventory management.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Demonstrate knowledge of financial management concepts, objectives, and the trade-off between profit maximization and wealth maximization.
CO2	Analyze and make financing decisions, assess financial leverage, and calculate the weighted average cost of capital for organizations.
CO3	Apply investment appraisal techniques such as NPV, IRR, and Payback Period to evaluate long-term projects.
CO4	Formulate dividend policies, interpret dividend theories, and recommend optimal payout strategies for firms.
CO5	Assess working capital requirements, implement cash management models, and optimize accounts receivable and inventory management.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	1
CO2	2	3	3	1	2
CO3	3	2	1	2	2
CO4	3	2	1	2	2
CO5	2	3	2	1	3

1= Slight (low) 2=Moderate (Medium) 3=Substantial (High)

Prerequisite: Basic Knowledge of accounts and accounting concepts.

UNIT-1

Financial Management: Concept - Nature and Scope - Evolution of financial Management-The new role in the contemporary scenario – Goals and objectives of financial Management - Firm's mission and objectives - Profit Maximization Vs. Wealth maximization – Maximization Vs Satisfying - Major decisions of financial manager.

UNIT -II

Financing Decision: Sources of finance - Concept and financial effects of leverage – EBIT – EPS analysis. Cost of Capital: Weighted Average Cost of Capital– Theories of Capital Structure.

UNIT-III

Investment Decision: Concept and Techniques of Time Value of Money – Nature and Significance of Investment Decision – Estimation of Cash flows – Capital Budgeting Process – Techniques of Investment Appraisal – Discounting and Non-Discounting Methods.

UNIT-IV

Dividend Decision: Meaning and Significance – Major forms of dividends – Theories of Dividends – Determinants of Dividend – Dividends Policy and Dividend valuation – Bonus Shares –Stock Splits – Dividend policies of Indian Corporate.

UNIT-V

Liquidity Decision: Meaning - Classification and Significance of Working Capital – Components of Working Capital – Factors determining the Working Capital – Estimating Working Capital requirement – Cash Management Models – Accounts Receivables –Credit Policies – Inventory Management.

Relevant case study discussions in all units.

References:

1. I.M. Pandey: “**Financial Management**”, Vikas Publishers, New Delhi, 2013.
2. Khan and Jain: Financial Management, Tata McGraw Hill, New Delhi,
3. Prasanna Chandra: “**Financial Management Theory and Practice**”, Tata McGrawHill 2011.
4. P.Vijaya Kumar, M.Madana Mohan, G. Syamala Rao: “**Financial Management**”, Himalaya Publishing House, New Delhi, 2013.
5. Brigham,E.F: “**Financial Management Theory and Practice**”, Cengage Learning, New Delhi, 2013
6. RM Srivastava, Financial Management, Himalaya Publishing house, 4th edition.

MBA (II Sem)		L	T	P	Cr
	24MB08 Human Resource Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, principles, and evolution of Human Resource Management and its strategic role in organizations.
CEO2	To develop analytical skills related to HR planning, recruitment, training and development
CEO3	To gain knowledge on performance appraisal system, career development and also current trends and compensation methods
CEO4	To gain knowledge of wage administration, welfare measures, and labor legislation affecting human resource practices.
CEO5	To understand the dynamics of industrial relations, trade unions, collective bargaining, and dispute resolution mechanisms.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, principles, evolution, and strategic role of Human Resource Management in modern organizations.
CO2	Apply HR planning, job analysis, recruitment, selection, training, and development practices to organizational situations.
CO3	Analyze performance appraisal systems, career development practices, and compensation management strategies used in organizations.
CO4	Understand and evaluate wage and salary administration, incentive systems, welfare measures, and labor legislation affecting HR practices.
CO5	Examine industrial relations, trade unions, collective bargaining, grievance handling, employee participation, and workplace safety.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	-
CO2	2	3	2	1	1
CO3	3	2	1	2	2
CO4	3	2	1	2	1
CO5	2	3	2	1	3

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basic Knowledge of Management

UNIT -I

HRM: Concept, Nature, Scope- and Functions – evolution of HRM- Principles - Ethical Aspects of HRM- HR policies, Strategies to increase firm performance - Role and position of HR department – Strategic HR in changing environment – Emerging trends in HRM.

UNIT -II

Investment perspectives of HRM: HR Planning – Demand and Supply forecasting – Job Analysis-Job Design-Job Evaluation. Recruitment and Selection- Sources of recruitment – e-recruitment. Steps in Selection Procedures- Tests and Interview Techniques - Induction- Training and Development – Need and Importance- Methods and of Training. Concept of HRD.

UNIT -III

Performance Appraisal: Importance – Methods – Traditional and Modern methods – Latest trends in performance appraisal - Career Development and Counseling- Compensation - Concepts and Principles-Influencing Factors- Current Trends in Compensation- Methods of Payments in detail - Incentives rewards compensation mechanisms.

UNIT -IV

Wage and Salary Administration: Concept- Wage Structure- Wage and Salary Policies- Legal Frame Work- Determinants of Payment of Wages- Wage Differentials - Incentive Payment Systems. Welfare management: Nature and concepts – statutory and non-statutory welfare measures.

UNIT-V

Managing Industrial Relations: Nature- Importance -Trade Unions - Employee Participation Schemes- Collective Bargaining – Grievances and disputes resolution mechanisms – Managing employee safety and health.

Relevant case study discussions in all units.

References:

1. K Aswathappa: “Human Resource and Personnel Management”, Tata McGraw Hill, New Delhi, 2013.
2. N. Sambasiva Rao and Dr. Nirmal Kumar: “Human Resource Management and Industrial Relations”, Himalaya Publishing House, Mumbai.
3. Mathis, Jackson, Tripathy: “Human Resource Management: A south-Asian Perspective”, Cengage Learning, New Delhi, 2013.
4. Subba Rao P: “Personnel and Human Resource Management-Text and Cases”, Himalaya Publications, Mumbai, 2013.
5. Madhurima Lall, Sakina Qasim Zasidi: “Human Resource Management”, Excel Books, New Delhi, 2010.

MBA (II Sem)		L	T	P	Cr
	24MB09 Operations Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To understand the fundamentals of Operations Management and its role in manufacturing and service organizations.
CEO2	To develop analytical skills for designing products, processes, and facilities to improve operational efficiency.
CEO3	To apply forecasting, planning, and control techniques for effective resource utilization
CEO4	To enhance productivity and quality using scientific methods, tools, and continuous improvement practices.
CEO5	To analyze real-life operational problems and case studies to support managerial decision-making.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Understand fundamentals of Operations Management and production systems.
CO2	Apply product, process, facility, and job design concepts.
CO3	Apply forecasting, planning, and control techniques in operations.
CO4	Analyze productivity using work study and process analysis tools.
CO5	Evaluate quality management practices using SQC and TQM concepts.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	-	-	-
CO2	3	2	1	-	1
CO3	3	3	1	-	1
CO4	2	3	-	-	1
CO5	2	2	3	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge of Management & statistical techniques.

UNIT I:

Introduction to Operation Management: Nature & Scope of Operation/ Production Management, Relationship with other functional areas, Recent trend in Operation Management, Manufacturing & Theory of Constraint, Types of Production System, Just in Time (JIT) & lean system.

UNIT II:

Product Design & Process Selection: Stages in Product Design process, Value Analysis, Facility location & Layout: Types, Characteristics, Advantages and Disadvantages, Work measurement, Job design.

UNIT III:

Forecasting & Capacity Planning: Methods of Forecasting, Overview of Operation Planning, Aggregate Production Planning, Production strategies, Capacity Requirement Planning, MRP, Scheduling, Supply Chain Management, Purchase Management, Inventory Management.

UNIT- IV:

Productivity: Factors, Affecting Productivity – Job Design – Process Flow Charts – Methods Study – Work Measurement – Engineering and Behavioral Approaches.

UNIT V:

Quality Management: Quality- Definition, Dimension, Cost of Quality, Quality Circles- Continuous improvement (Kaizen), ISO (9000&14000 Series), Statistical Quality Control: Variable & Attribute, Process Control, Control Charts -Acceptance Sampling Operating Characteristic Curve (AQL, LTPD, Alpha & Beta risk), Total Quality Management (TQM).

Relevant case study discussions in all units.

References:

1. Krajewski & Ritzman (2004). Operation Management -Strategy and Analysis. Prentice Hall of India.
2. Panner Selvem, Production and Operation Management, Prentice Hall of India.
3. Chunnawals, Production & Operation Management Himalaya, Mumbai
4. Charry, S.N (2005). Production and Operation Management- Concepts, Methods Strategy. John Willy & Sons Asia Pvt Limited.
5. K Aswathappa & Sridhar Bhatt, Production & Operations Management, Himalaya, Mumbai.

MBA (II Sem)		L	T	P	Cr.
	24MB10 Marketing Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO 1	To understand the transition from basic customer needs to modern marketing strategies, enabling them to identify how businesses create value within the Indian market environment.
CEO 2	To break down a broad market into manageable groups and develop a unique brand identity that stands out to a specific target audience.
CEO 3	To utilize the tools to manage a product's journey from launch to retirement and to apply pricing tactics that balance company profit with customer value.
CEO 4	To build a cohesive "voice" for a brand using advertising, public relations, and sales teams to effectively reach and persuade consumers.
CEO 5	To understand as to how products physically reach the consumer and how to use data to ensure a marketing plan is actually working.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Identify the difference between what a customer "needs" and what they "want," and use that insight to suggest which marketing philosophy fits a business in the Indian context.
CO2	Divide a diverse population and "slice" it into specific groups, choosing the best group to sell and creating a clear reason why they should pick your brand over a competitor.
CO3	Track where a product stands in its "life" and pick the right price tag that keeps the business profitable without scaring away the customers.
CO4	Design a balanced plan for a brand—mixing ads, social media, and sales teams—so the message stays consistent and actually convinces people to buy.
CO5	Determine the best path for a product to get from the factory to the shelf and use "performance scorecards" to prove whether the marketing budget is being spent wisely or wasted.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	3	1
CO2	2	1	1	1	1
CO3	2	1	-	1	1
CO4	-	-	-	1	-
CO5	1	2	-	-	-

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge of sales and management.

UNIT - I

Introduction to Marketing: Needs - Wants – Demands - Products - Exchange - Transactions - Concept of Market and Marketing and Marketing Mix - Production Concept- Product Concept - Sales and Marketing Concept - Societal Marketing Concept - Green Marketing concept - Indian Marketing Environment.

UNIT - II

Market Segmentation, Targeting and Positioning: Identification of Market Segments - Consumer and Institutional/corporate Clientele - Segmenting Consumer Markets - Segmentation Basis – Evaluation and Selection of Target Markets – Positioning significance - Developing and Communicating a Positioning Strategy.

UNIT - III

Product and Pricing Aspects: Product – Product Mix - Product Life cycle -Obsolescence- Pricing- Objectives of Pricing - Methods of Pricing - Selecting the Final price - Adopting price - Initiating the price cuts - Imitating price Increases-Responding to Competitor's price changes.

UNIT - IV

Marketing Communication: Communication Process – Communication Mix – Integrated Marketing Communication - Managing Advertising Sales Promotion - Public relations and Direct Marketing - Sales force – Determining the Sales Force Size - Sales force Compensation.

UNIT - V

Distribution, Marketing Organization and Control: Channels of Distribution-Intensive, Selective and Exclusive Distribution- Organizing the Marketing Department - Marketing Implementation - Control of Marketing Performance - Annual Plan Control - Profitability Control - Efficiency Control - Strategic Control.

Relevant case study discussions in all units.

References:

1. Phillip Kotler: “**Marketing Management** “, Pearson Publishers, New Delhi, 2013.
2. Rajan Saxena: “**Marketing Management**”, Tata McGraw Hill, New Delhi, 2012.
3. V S Ramaswamy & S Namakumari, Marketing Management Global Perspective Indian Context 4th Edition, Mac Millan Publishers 2009.
4. Tapan K Panda: “**Marketing Management**”, Excel Books, New Delhi, 2012
5. Paul Baines, Chris Fill, Kelly Page Adapted by Sinha K: “**Marketing**”, Oxford University Press, Chennai, 2013

MBA (II Sem)		L	T	P	Cr.
	24MB11 Research Methods for Business Decisions	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the nature, purpose, and significance of research in business and social sciences.
CEO2	To develop the ability to identify research problems and design an appropriate research process.
CEO3	To gain knowledge of data collection methods, sampling techniques, and measurement scales used in research.
CEO4	To acquire skills in statistical analysis, hypothesis testing, and interpretation of research data.
CEO5	To develop competence in preparing, presenting, and communicating research reports in a systematic and ethical manner.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the nature, importance, types, and ethical issues of business and social research, and formulate a clear research problem.
CO2	Design an appropriate research methodology, including data sources, sampling techniques, questionnaire design, and measurement scales.
CO3	Conduct survey research and fieldwork, and apply techniques of data editing, coding, classification, tabulation, and graphical presentation.
CO4	Formulate hypotheses and apply statistical inference techniques, including parametric and non-parametric tests such as t-test and Chi-square test, for data analysis.
CO5	Analyze research data using bi-variate and multivariate techniques, interpret results, and prepare and present a systematic research report.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	3
CO2	3	2	1	2	2
CO3	2	3	2	1	2
CO4	2	2	3	2	2
CO5	3	2	2	2	1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge of social sciences.

UNIT- I

Introduction: Nature and Importance of Research, the role of Business Research, aims of social research, Types of Research- Pure research vs. Applied research, Qualitative research vs. Quantitative research, Exploratory research, Descriptive research and Experimental research, ethical issues in business Research- Defining Research Problem, Steps in Research process.

UNIT- II

Data Base: Discussion on primary data and secondary data, tools and techniques of collecting data. Methods of collecting data. Sampling design and sampling procedures. Random vs. Non-random sampling techniques, determination of sample size and an appropriate sampling design. Designing of Questionnaire – Measurement and Scaling – Nominal Scale – Ordinal Scale – Interval Scale – Ratio Scale – Guttman Scale – Likert Scale – Schematic Differential Scale.

UNIT- III

Survey Research and data analysis: Selection of an appropriate survey research design, the nature of field work and Field work management. Media used to communicate with Respondents, Personal Interviews, Telephone interviews, Self-administered Questionnaires-Editing – Coding – Classification of Data – Tables and Graphic Presentation –Preparation and Presentation of Research Report.

UNIT- IV

Statistical Inference: Formulation of Hypothesis –Tests of Hypothesis - Introduction to Null hypothesis vs. alternative hypothesis, parametric vs. non-parametric tests, procedure for testing of hypothesis, tests of significance for small samples, application, t-test, Chi Square test.

UNIT- V

Multivariate Analysis: Nature of multivariate analysis, classifying multivariate techniques, analysis of dependence, analysis of interdependence. Bi-Variate analysis-tests of differences-t test for comparing two means and z-test for comparing two proportions and ANOVA for complex experimental designs.

Relevant case study discussions in all units.

References:

1. C.R. Kothari: Research Methodology, methods and Techniques New Age International Publisher.
2. Navdeep and Gupta : “Statistical Techniques & Research Methodology”, Kalyani Publishers
3. William G.Zikmund, Adhkari: “*Business Research Methods*”, Cengage Learning, New Delhi, 2013.
4. A.N. Sadhu, Amarjit singh, Research methodology in social sciences, 7th Edition Himalaya Publications.
5. A Bhujanga rao , Research methodology, Excel Books, 2008.

MBA (II Sem)		L	T	P	Cr
	24MB12 Business Analytics	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To learn data analytics concepts and their relevance in business organizations.
CEO2	To use the analytical techniques and tools for business data analysis.
CEO3	To clean, visualize, and present data using modern analytics tools.
CEO4	To understand the Descriptive statistical methods for summarizing and analyzing business data.
CEO5	To learn the process of developing competence in predictive analysis using correlation and regression methods.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand data analytics concepts and apply them to real-world organizational decision-making.
CO2	Apply data analysis processes, techniques, and tools to analyze data and generate meaningful insights.
CO3	Apply data cleaning techniques and analyze data using statistical summaries, visualizations, dashboards, data Interpretation and Visualization tools
CO4	Analyze and compute the measures of central tendency and variability using MS Excel for descriptive data analysis.
CO5	Apply correlation and regression techniques, analyze business data, and evaluate predictive models to support managerial decision-making.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	3
CO2	3	3	1	2	2
CO3	2	3	2	1	2
CO4	2	3	3	1	2
CO5	2	3	2	2	1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic Knowledge of statistical tools & techniques.

UNIT -I

Introduction to Data Analytics: Introduction to Data analytics - Role of Data in Organization, Data lifecycle. (Data source, data changes, processes, usage) -Various Data Types - Significance of Analytics- Role of Data Analyst - Difference between Data analytics and Business Analytics – real-world data analytics examples.

UNIT -II

Tools & Techniques: Typical Data Analysis Process - Data analytics techniques: Regression analysis, Factor analysis, Cohort analysis, Cluster analysis-Time-series analysis. Data analytics tools -Microsoft Excel, Tableau, SAS, RapidMiner, Power BI.

UNIT -III

Concepts of data cleaning - Data Visualization: Over view of Data visualization – Data Visualization tools, Statistical methods for summarizing data – How to create pivotal tables using excel - Exploring data using pivot table –Cross Tabulation _ Creating Charts: -1. Scatter charts, 2. Line charts, 3. Bar charts and column, 4. Pie Charts and 3-D charts, 4. Bubble charts, - Effective use of Dashboards, Power BI and Tableau.

UNIT -IV

Descriptive Analytics: Concept of Descriptive Analytics –Measures of central Tendency –Measuring and calculation of Arithmetic Mean, Mode, Median - Calculation of application of Weighted Arithmetic Mean, Geometric and Harmonic mean using MS Excel- Measures of Variability-Range, Variance, Standard Deviation, Coefficient of Variation using MS Excel

UNIT -V

Predictive Analytics: Karl Pearson Correlation Techniques - Spearman's Rank correlation -Simple and Multiple regression -Regression by the method of least squares – Building good regression models – Regression with categorical independent variables.

Relevant case study discussions in all units.

References:

1. R for Data Science: Import, Tidy, Transform, Visualize, and Model Data, Hadley Wickham & Garrett Grolemund. O'REILLY.
2. Mohiuddin Ahmed, Al-Sakib Khan Pathan, Data Analytics: Concepts, Techniques, and Applications, Taylor & Francis Group, 2020
3. James Evans, Business Analytics, 2e, Pearson, 2017.
4. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams Essential of Business Analytics, Cengage Learning, 2020.
5. Thomas Eri, Wajid Khattack & Paul Buhler: Big Data Fundamentals, Concepts, Drivers and Techniques by Prentice Hall of India, New Delhi, 2015.
6. Akil Maheswari, Big Data, Upskill ahead by Tata McGraw Hill, New Delhi, 2016.

MBA (II Sem)		L	T	P	Cr
	24OE86 Cross Cultural Management	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To understand the concept of culture and its significance in business and organizational contexts.
CEO2	To develop awareness of cultural differences and similarities in global business environments.
CEO3	To build competencies in cross-cultural communication, negotiation, and decision-making.
CEO4	To gain knowledge of global human resource management practices, including staffing, training, leadership, and retention.
CEO5	To develop the ability to diagnose, design, and manage organizational culture change for high performance.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concept, dimensions, and analytical frameworks of organizational culture and the cultural backgrounds of business stakeholders.
CO2	Analyze the role of culture in global management, cross-cultural communication, and the development of high-performance teams.
CO3	Apply cross-cultural negotiation and decision-making skills in international and multicultural business contexts.
CO4	Examine global HRM practices, including expatriate management, leadership development, motivation, and retention strategies.
CO5	Diagnose existing corporate cultures, design culture change strategies, and evaluate the effectiveness of culture transformation initiatives.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	2	2	3
CO2	2	3	1	2	2
CO3	2	2	2	1	2
CO4	2	3	3	1	2
CO5	2	1	2	2	1

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic Knowledge of Indian cultural environment.

UNIT – I

Introduction – Concept of Culture for a Business Context; Brief wrap up of organizational culture & its dimensions; Cultural Background of business stakeholders [managers, employees, shareholders, suppliers, customers and others] – An Analytical framework.

UNIT – II

Culture and Global Management – Global Business Scenario and Role of Culture. Framework for Analysis; Elements & Processes of Communication across Cultures; Communication Strategy for/ of an Indian MNC and Foreign MNC & High-Performance Winning Teams and Cultures; Culture Implications for Team Building.

UNIT – III

Cross Culture – Negotiation & Decision Making – Process of Negotiation and Needed Skills & Knowledge Base – Overview with two illustrations from multicultural contexts [India – Europe/ India – US settings, for instance]; International and Global Business Operations- Strategy Formulation & Implementation; Aligning Strategy, Structure & Culture in an organizational Context.

UNIT – IV

Global Human Resources Management – Staffing and Training for Global Operations – Expatriate – Developing a Global Management Cadre. Motivating and Leading; Developing the values and Behaviour necessary to build high-performance organization personnel [individuals and teams included] – Retention strategies.

UNIT – V

Corporate Culture – The Nature of Organizational Cultures Diagnosing the as is Condition; Designing the Strategy for a Culture Change Building; Successful Implementation of Culture Change Phase; Measurement of ongoing Improvement.

Relevant case study discussions in all units.

References:

1. Cashby Franklin, Revitalize your corporate culture: PHI, Delhi
2. Deresky Helen, International Management: Managing Across Borders and Cultures, PHI, Delhi
3. Esenn Drlarry, Rchildress John, The Secret of a Winning Culture: PHI, Delhi

MBA (II Sem)		L	T	P	Cr
	24OE87 Project Management	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To understand the fundamental concepts, environment, and life cycle of project management.
CEO2	To develop the ability to identify investment opportunities and evaluate project proposals.
CEO3	To acquire knowledge of market, technical, legal, managerial, and financial feasibility analysis.
CEO4	To gain proficiency in project scheduling, planning, and control techniques such as PERT and CPM.
CEO5	To develop skills for effective project implementation, monitoring, evaluation, and review.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Explain the basics of project management, types of projects, project life cycle, appraisal, selection, and causes of project delays.
CO2	Conduct market feasibility analysis, including market surveys, demand forecasting, and sales projections.
CO3	Analyze technical, legal, and managerial feasibility and apply PERT and CPM techniques for project scheduling and control.
CO4	Evaluate financial and operational feasibility using capital budgeting techniques, risk analysis, and cost–revenue estimation.
CO5	Apply concepts of project implementation, control, performance evaluation, and project review, including abandonment decisions.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	2	3	1	1	2
CO3	1	2	2	3	2
CO4	2	2	3	1	1
CO5	1	2	2	2	3

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic Knowledge of production and its operations.

UNIT -I:

Basics of Project Management –Concept– Project environment – Types of Projects – Project life cycle – Project proposals – Monitoring project progress – Project appraisal and Project selection – Causes of delay in Project commissioning– Remedies to avoid overruns. Identification of Investment opportunities – Sources of new project ideas, preliminary screening of projects – Components for project feasibility studies.

UNIT- II:

Market feasibility -Market survey – Categories of Market survey – steps involved in conducting market survey – Demand forecasting techniques, sales projections., business environment for project management.

UNIT- III:

Technical and Legal feasibility: Production technology, materials and inputs, plant capacity, site selection, plant layout, Managerial Feasibility Project organization and responsibilities. Legalities – Basic legal provisions. Development of Programme Evaluation & Review Technique (PERT) –Construction of PERT (Project duration and valuation, slack and critical activities, critical path interpretation) – Critical Path Method (CPM)

UNIT -IV:

Financial feasibility – Capital Expenditure – Criteria and Investment strategies – Capital Investment Appraisal Techniques (Non DCF and DCF) – Risk analysis – Cost and financial feasibility – Cost of project and means of financing — Estimation of cash flows – Estimation of Capital costs and operating costs; Revenue estimation – Income – Determinants – Forecasting income –Operational feasibility - Breakeven point – Economics of working.

UNIT- V:

Project Implementation and Review: Forms of project organization – project planning – project control – human aspects of project management – prerequisites for successful project implementation – project review – performance evaluation – abandonment analysis.

Relevant case study discussions in all units.

References:

1. Prasanna Chandra, “Projects, Planning, Analysis, Selection, Financing, Implementation and Review”, Tata McGraw Hill Company Pvt. Ltd., New Delhi 1998.
2. Gido: Effective Project Management, 2e, Thomson, 2007.
3. Singh M.K, “Project Evaluation and Management”.
4. Vasanth Desai, Project Management, 4th edition, Himalaya Publications 2018.
5. Clifford F. Gray, Erik W. Larson, “Project Management, the Managerial Emphasis”, McGraw Hill, 2000.

MBA (II Sem)		L	T	P	Cr
	24OE88 Lean Management	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To understand the evolution of production systems and the philosophy of lean production.
CEO2	To develop knowledge of waste elimination, customer focus, and systems thinking in lean environments.
CEO3	To acquire practical understanding of JIT, Jidoka, Kaizen, Six Sigma, and quality improvement tools.
CEO4	To learn the principles of standardized work, Total Productive Maintenance (TPM), and continuous improvement.
CEO5	To develop an appreciation for lean culture, employee involvement, and strategic deployment through Hoshin Planning.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts and evolution of lean production, including mass production, craft production, Toyota Production System, customer focus, and waste management.
CO2	Apply Just-in-Time (JIT) principles, Kanban systems, value stream mapping, Jidoka, and Poka-Yoke techniques to improve production flow.
CO3	Analyze continuous improvement tools such as Kaizen, Six Sigma, QFD, FMEA, SPC, QC circles, and 5S in lean systems.
CO4	Understand and evaluate standardized work and Total Productive Maintenance (TPM) for improving productivity and equipment efficiency.
CO5	Examine lean culture and strategic alignment through employee involvement, quality circles, Kaizen training, and Hoshin Planning.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	1
CO2	2	3	1	1	2
CO3	3	2	1	2	2
CO4	2	2	3	1	1
CO5	1	2	1	2	2

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic Knowledge of Production Concepts

UNIT- I

Introduction: Mass production system, Craft Production, Origin of Lean production system, Why Lean production, Lean revolution in Toyota, Systems and systems thinking, Basic image of lean production, Customer focus, Waste Management.

UNIT- II

Just in Time: Why JIT, Basic Principles of JIT, JIT system, Kanban, Six Kanban rules, Expanded role of conveyance, Production levelling, Three types of Pull systems, Value stream mapping. JIDOKA, Development of Jidoka concept, Why Jidoka, Poka, Yoke systems, Inspection systems and zone control – Types and use of Poka-Yoke systems, Implementation of Jidoka

UNIT -III

Kaizen: Six – Sigma philosophy and Methodologies, QFD, FMEA Robust Design concepts; SPC, QC circles standardized work in lean system, Standards in the lean system, 5S system. Total Productive Maintenance: Why Standardized work, Elements of standardized work, Charts to define standardized work, Kaizen and Standardized Work Common layouts.

UNIT -IV

Total Productive Maintenance: Why Standardized work, Elements of standardized work, Charts to define standardized work, Kaizen and Standardized Work Common layouts.

UNIT- V

Hoshin Planning & Lean Culture: Involvement, Activities supporting involvement, Quality circle activity, Kaizen training, Key factors of PKT success, Hoshin Planning System, Four Phases of Hoshin Planning, Why Lean culture – How lean culture feels.

Relevant case study discussions in all units.

References:

1. Jeffrey Liker, The Toyota Way: Fourteen Management Principles from the World's Greatest Manufacturer, McGraw Hill, 2004.
2. Debashish Sarkar, Lessons in Lean Management,
3. Dale H., Besterfield, Carol, Besterfield, et al, Total Quality Management (TQM) 5e by Pearson 2018.

MBA (II Sem)		L	T	P	Cr
	24OE89 Database Management System	3	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn.

CEO1	To understand the basic concepts, architecture, and challenges of database systems.
CEO2	To learn data modeling concepts and relational database design principles.
CEO3	To develop skills in database definition, querying, and security using SQL.
CEO4	To understand transaction management, concurrency control, and recovery mechanisms.
CEO5	To introduce advanced database concepts such as indexing, query optimization, and data warehousing.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Explain database concepts, architecture, data models, and database applications.
CO2	Design databases using ER and relational models and apply normalization techniques.
CO3	Use SQL for database definition, querying, security, and advanced database operations.
CO4	Analyze transaction processing, concurrency control, and recovery mechanisms in DBMS.
CO5	Explain advanced database concepts including indexing, query optimization, and data warehousing.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	1
CO2	3	3	1	1	1
CO3	3	3	1	1	1
CO4	3	3	2	1	2
CO5	2	3	1	1	1

1=Slight (low)2=Moderate (Medium)3=Substantial (High)

Prerequisite: Basic Knowledge of information technology.

UNIT- I

Introduction to Database Systems: Data - Database Applications - Evolution of Database - Need for Database Management – Data models - Database Architecture - Key Issues and Challenges in Database Systems.

UNIT- II

ER and Relational Models: ER Models – ER to Relational Mapping –Object Relational Mapping - Relational Model Constraints - Keys - Dependencies - Relational Algebra - Normalization - First, Second, Third & Fourth Normal Forms - BCNF – Join Dependencies.

UNIT- III

Data Definition and Querying: Basic DDL - Introduction to SQL - Data Constraints - Advanced SQL - Views - Triggers - Database Security – Embedded & Dynamic SQL.

UNIT- IV

Transactions and Concurrency: Introduction to Transactions - Transaction Systems - ACID Properties - System & Media Recovery - Need for Concurrency - Locking Protocols – SQL for Concurrency – Log Based Recovery - Two Phase Commit Protocol - Recovery with SQL- Deadlocks & Managing Deadlocks.

UNIT- V

Advanced Topics in Databases: Indexing & Hashing Techniques - Query Processing & Optimization - Sorting & Joins – Database Tuning - Introduction to Special Topics - Spatial & Temporal Databases – Data Mining and Warehousing.

Relevant case study discussions in all units.

References:

1. Abraham Silberschatz, Henry F. Korth, S. Sudharshan, —Database System Concepts, Sixth Edition, Tata McGraw Hill, 2010.
2. Ramez Elmasri, Shamkant B. Navathe, —Fundamentals of Database Systems, Sixth Edition, Pearson/Addison - Wesley, 2010.
3. C.J. Date, A. Kannan and S. Swamynathan, —An Introduction to Database Systems, Pearson Education, Eighth Edition, 2006.
4. Raghu Ramakrishnan, —Database Management Systems, Fourth Edition, McGraw Hill, 2015.

MBA (II Sem)		L	T	P	Cr.
	24MB54 R-Programming Lab	-	-	4	2

Course Educational Objectives (CEOs): In this course, the students learn

CEO 1	To Apply fundamental R programming concepts including data types, variables, and data structures for solving basic computational problems.
CEO 2	To develop students' ability to design and implement R programs using control structures, user-defined functions, and recursion for solving real-world computational tasks.
CEO 3	To equip students with the skills to apply mathematical, statistical, and simulation techniques in R for effective data analysis and problem-solving.
CEO 4	To train students to create, customize, and interpret graphical visualizations in R for meaningful and effective data representation.
CEO 5	To enable students to apply probability distributions and perform statistical hypothesis testing in R for conducting inferential data analysis.

Course outcomes (COs): At the end of the course, students will be able to

CO1	Apply fundamental R concepts including data types and data structures to perform basic computations.
CO2	Develop R programs using control structures, functions, and recursion to solve computational problems.
CO3	Implement mathematical, statistical, and simulation techniques in R for data analysis.
CO4	Create and customize graphical visualizations in R for effective data representation.
CO5	Apply probability distributions and statistical tests in R to perform inferential analysis.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2	1	1	1
CO2		3		2	2
CO3		1	1	1	1
CO4	2	2	1	1	1
CO5	2	3	2	2	2

1=Slight(low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basic Knowledge of Excel and other IT concepts

UNIT-I

All the theory content here below shall be executed with examples.

Introduction, how to run R, R Sessions and Functions, Basic Math, Variables, Data Types, Vectors, Conclusion, Advanced Data Structures, Data Frames, Lists, Matrices, Arrays, Classes.

UNIT-II

All the theory content here below shall be executed with examples.

R Programming Structures, Control Statements, Loops, - Looping Over Non vector Sets, - If- Else, Arithmetic and Boolean Operators and values, Default Values for Argument, Return Values, Deciding Whether to explicitly call return- Returning Complex Objects, Functions are Objective, No Pointers in R, Recursion, A Quicksort Implementation-Extended Example: A Binary Search Tree.

UNIT-III

All the theory content here below shall be executed with examples.

Doing Math and Simulation in R, Math Function, Extended Example Calculating Probability- Cumulative Sums and Products-Minima and Maxima- Calculus, Functions for Statistical Distribution, Sorting, Linear Algebra Operation on Vectors and Matrices, Extended Example: Vector cross Product- Extended Example: Finding Stationary Distribution of Markov Chains, Set Operation, Input /output, Accessing the Keyboard and Monitor, Reading and writer Files,

UNIT-IV

All the theory content here below shall be executed with examples.

Graphics, Creating Graphs, The Workhorse of R Base Graphics, the plot () Function – Customizing Graphs, Saving Graphs to Files.

UNIT-V

All the theory content here below shall be executed with examples.

Probability Distributions, Normal Distribution- Binomial Distribution- Poisson Distributions Other Distribution, Basic Statistics, Correlation and Covariance, T-Tests, -ANOVA.

References:

- 1) The Art of R Programming, Norman Matloff, Cengage Learning
- 2) R for Everyone, Lander, Pearson
- 3) R Cookbook, Paul Teetor, Oreilly
- 4) R Programming By Dr.T. Murali Mohan, S.Chand Publications.
- 5) Garrett Grolemond, Hands on Programming with R, Oreilly

MBA (II Sem)		L	T	P	Cr.
	24MB55 TALLY LAB	-	-	4	2

Course Educational Objective (CEOs): In this course, the students will learn.

CEO1	To understand the fundamentals of Tally.ERP9, including company creation, ledger management, and basic accounting operations.
CEO2	To develop skills in managing inventory using Tally.ERP9, including stock groups, categories, units of measure, and voucher entries.
CEO3	To acquire advanced accounting and inventory management skills, such as bill-wise details, cost centers, multiple currencies, and bank reconciliation.
CEO4	To gain knowledge of tax compliance and statutory reporting in Tally.ERP9, including TDS, TCS, GST, EPF, ESIC, and professional tax.
CEO5	To learn how to generate and analyze financial, inventory, and payroll reports for effective decision-making.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Demonstrate the ability to set up companies, create ledgers, and manage accounts efficiently using Tally.ERP9.
CO2	Apply inventory management techniques, including creating stock groups, stock items, and voucher entries for real-world business scenarios.
CO3	Perform advanced accounting operations like cost center allocation, interest calculation, budget controls, bank reconciliation, and order processing in Tally.ERP9.
CO4	Execute tax-related operations such as TDS, TCS, GST compliance, and statutory reporting using Tally.ERP9.
CO5	Generate, interpret, and analyze various financial, inventory, and payroll reports to support managerial decision-making.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2		1	1
CO2	1	2	1	1	1
CO3	2	1	1	1	1
CO4	2	1	1		1
CO5	2	1	1		1

1= Slight (low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic knowledge of the fundamentals of computers and their operation.

UNIT - I

FUNDAMENTALS OF TALLY.ERP: tally origin - Company features -Configuration -Getting functions with Tally.ERP9 - Creation / setting up of Company - Chart of Groups -Groups -Multiple Groups - Ledgers -Multiple Ledgers

UNIT - II

INVENTORY MASTERS IN TALLY.ERP9 - Stock Groups - Multiple Stock Groups - Stock Categories - Multiple Stock Categories - Units of Measure- Stock Items- vouchers entries - Types of Vouchers - Chart of Vouchers - Accounting Vouchers - Inventory Vouchers - Invoicing

UNIT - III

ADVANCE ACCOUNTING & INVENTORY TALLY.ERP9 - Bill-wise details - Cost centers and Cost Categories - Multiple currencies - Interest calculations - Budget and controls - Scenario management - Bank Reconciliation - Order Processing - Recorder Levels - Batch-wise details - Bill of Materials - Price Lists - Zero-Valued Entries - Additional cost details - POS

UNIT - IV

TAXES IN TALLY.ERP9 - TDS - TDS Reports - TDS Online Payment - TDS Returns filing - TDS Certificate issuing - 26AS Reconciliation - TCS - TCS Reports - GST - GST Returns □ EPF - ESIC - Professional Tax

UNIT - V

GENERATING REPORTS IN TALLY.ERP9 - Financial Statements - Trading Account - Profit & Loss Account - Balance Sheet - Accounts Books and Reports - Inventory Books and Reports - Exception Reports - Statutory Reports - Payroll Reports - Trail balance - Day Book □ -List of Accounts - Stock Summary - Outstanding Statement.

References:

1. TallyPrime Book (2023) by Sanjay Satpathy SWAYAM EDUCATION Mandal Bagicha, Hemkapada, Sunhat, Balasore,Odisha-756003 (INDIA)
2. Tally power of simplicity (2011) by Aruna Prakashan Hindvi Computer, Latur
3. Financial Accounting and Analysis - Discovery Publishing House Pvt. Ltd., New Delhi
4. Management and Cost accounting - - Discovery Publishing House Pvt. Ltd., New Delhi

MBA (II Sem)		L	T	P	Cr.
	24MB56 Entrepreneur Project –II	-	-	4	2

Study on different loan approaches of state and central govt. Prepare the business development plan.

III SEMESTER

MBA (III Sem)		L	T	P	Cr
	24MB13 Strategic Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Understand the concepts, process, and importance of strategic management in organizations.
CEO 2	To Analyze internal and external business environments using strategic management tools and techniques.
CEO 3	To Formulate business, corporate, and functional strategies to achieve organizational goals and competitive advantage.
CEO 4	To Apply strategic implementation practices involving leadership, organizational structure, culture, and resource allocation.
CEO 5	To Analyze organizational performance and strategic control systems to identify gaps and support continuous improvement in achieving organizational objectives.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, process, vision, mission, objectives, and policies involved in strategic management.
CO2	Analyze the business environment using SWOT analysis, Porter's Five Forces, BCG Matrix, and GE Model to identify strategic opportunities and challenges.
CO3	Apply strategic management frameworks and formulate corporate, business, and functional strategies for competitive advantage.
CO4	Examine the role of leadership, organizational structure, culture, and resource allocation in effective strategy implementation.
CO5	Analyze organizational performance using strategic controls, benchmarking, strategic audits, and strategic information systems to identify areas for improvement.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	-	1	-
CO2	3	3	1	2	1
CO3	3	3	2	2	2
CO4	3	2	3	2	3
CO5	3	3	2	2	2

1= Slight (low) 2=Moderate (Medium) 3=Substantial (High)

Prerequisite: Basics of management and organizational concepts

UNIT-I

Introduction: Concepts in Strategic Management, Strategic Management as a process – Developing a strategic vision, Mission, Objectives, Policies – Factors that shape a company's strategy – Crafting a strategy.

UNIT-II

Environmental Scanning: Industry and Competitive Analysis -Evaluating company resources and competitive capabilities – SWOT Analysis – Strategies and competitive advantages in diversified companies and its evaluation. Tools and techniques- Porter's Five Force Model, BCG Matrix, GE Model,

UNIT-III

Strategy Formulation: Strategy Framework for Analyzing Competition, Porter's Value Chain Analysis, Competitive Advantage of a Firm, Exit and Entry Barriers - Formulation of strategy at corporate, business and functional levels. Types of Strategies

UNIT-IV

Strategy Implementation: Strategy and Structure, Strategy and Leadership, Strategy and culture connection - Operationalizing and institutionalizing strategy- Organizational Values and Their Impact on Strategy – Resource Allocation – Planning systems for implementation.

UNIT-V

Strategy Evaluation and control – Establishing strategic controls - Measuring performance – appropriate measures- Role of the strategist – using qualitative and quantitative benchmarking to evaluate performance - strategic information systems – problems in measuring performance – Strategic surveillance -strategic audit

Relevant Case study discussion in all units

References

1. **P.Subba Rao:** Business Policy and Strategic Management, Himalaya Publishing House, New Delhi, 2010
2. **Kazmi:** Strategic Management and Business Policy, Tata McGraw Hill, 2009
3. **R.Srinivasn:** Strategic Management, PHI Learning, New Delhi, 2009
4. **Adrian Haberberg & Alison:** Strategic Management, Oxford University Press, New Delhi, 2009

MBA (III Sem)		L	T	P	Cr
	24MB14 Operations Research	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Operations Research techniques for solving complex managerial and business decision-making problems
CEO2	To apply Linear programming, transportation, and assignment models to optimize the utilization of organizational resources.
CEO3	To apply dynamic programming, integer programming, and optimization methods for strategic planning and resource allocation.
CEO4	To analyze competitive situations using game theory and develop optimal decision strategies under conflict and uncertainty.
CEO5	To develop Project management and replacement models to improve project scheduling, cost control, maintenance and replacement decisions.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Formulate and solve linear programming models to support optimal managerial decision-making.
CO2	Apply transportation, assignment, and routing models to optimize resource allocation and logistics operations
CO3	Apply dynamic and integer programming techniques to solve complex optimization problems.
CO4	Analyze strategic decision-making situations using game theory concepts and solution methods.
CO5	Develop project schedules and replacement strategies using CPM, PERT, and replacement models for efficient project and asset management.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	1		1
CO3	3	3	2		1
CO4	1	3	2	1	1
CO5	1	3	2	1	3

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basics of Quantitative analysis for business decisions

UNIT – I

Importance-The History of OR-Definition-Features-Scope of Operations Research –Linear Programming: Introduction-Advantages of using LP-Application areas of LP- Formation of Mathematical modelling, Graphical method, the Simplex Method; Justification, interpretation of Significance of All Elements in the Simplex Tableau, Artificial variable techniques: Big M Method.

UNIT II

Transportation, Assignment Models: Definition and application of the transportation model, Methods for finding initial solution-tests for optimality-variations in transportation problem, the Assignment Model, Travelling Salesman Problem.

UNIT – III

Dynamic Programming: Applications of D.P. (Capital Budgeting, Production Planning, Solving Linear Programming Problem) – Integer Programming – Branch and Bound Method.

UNIT – IV

Game Theory: Introduction – Two-Person Zero-Sum Games, Pure Strategies, Games with Saddle Point, Mixed strategies, Rules of Dominance, Solution Methods of Games Without Saddle point – Algebraic, matrix and arithmetic methods.

UNIT – V

CPM & PERT and Replacement Model: Drawing networks – identifying critical path – probability of completing the project within given time- project crashing – optimum cost and optimum duration. Replacement models comprising single replacement and group replacement.

Relevant Case study discussion in all units

References:

1. Winston, Operations Research, Cengage, ND
2. Anand Sharma, Operations Research, Himalaya Publishing House,
3. Kalavarthy, S.Operations Research, Vikas Publishers House Pvt Ltd.,
4. Mcleavey & Mojena, Principles of Operations Research for Management, AITBS publishers,
5. V.K.Kapoor, Operation Research Techniques for Management, Sultan Chand & Sons,
6. Richard Bronson & Govindasami Naadimuthu, SCHAUM'S OUTLINE OF THEORY & PROBLEMS OF Operations Research, 2nd Ed., Tata Mc Graw-Hill Edition,
7. JK Sharma Operation Research – Theory and Applications, MacMillan.

MBA (III Sem)		L	T	P	Cr
	24MB31 Learning and Development	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Understand the concepts, scope, and strategic importance of Learning and Development in organizations.
CEO2	To Explain learning theories, instructional design models, and training delivery methods used in employee development.
CEO3	To Analyze organizational learning needs and identify skill gaps using Training Needs Assessment techniques.
CEO4	To Apply training design and evaluation methods to improve employee performance and organizational effectiveness.
CEO5	To Analyze career development, leadership development, and emerging trends in Learning and Development for organizational growth.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, principles, and strategic role of Learning and Development in organizational growth.
CO2	Explain learning theories, instructional design models, learning objectives, and training delivery methods.
CO3	Analyze training needs using organizational, task, and person analysis to identify competency gaps.
CO4	Apply training design principles and evaluation methods to develop effective training programs.
CO5	Analyze career development, leadership development, and contemporary Learning and Development practices in organizations.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	2	1	1	1
CO3	3	3	1	2	1
CO4	3	2	2	2	2
CO5	2	3	3	3	3

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basics of Human Resource Management

UNIT I:

Introduction to Learning and Development-Definition, Scope and Importance of Learning and Development in Organizational growth- Evolution of Training and Development- L&D as a Strategic Business Partner- The Learning Organization (Peter Senge's Principles)-Learning Styles.

UNIT II:

Theories of Learning and Instructional Design Adult learning theories (Andragogy)- Principles of Instructional Design (ADDIE Model, SAM)-Learning Objectives (Bloom's Taxonomy)-Designing Training Content- Selecting Delivery Methods (classroom, e-learning, blended)-Role of Learning Management System (LMS).

UNIT III:

Training Needs Assessment (TNA) Purpose and Importance of TNA-Process of Training Needs Identification-Organizational, Task and Person Analysis- Methods for conducting TNA (Surveys, Interviews, Focus Groups and Job Analysis)- Identifying skill gaps and competency Mapping-Aligning TNA with Business Goals.

UNIT IV:

Designing training and Evaluation of Training Effectiveness Setting training objectives- Developing training content and Materials-Selecting training methods-Importance of evaluating training programs- Methods of training evaluation- Feedback mechanisms and continuous improvement.

UNIT V:

Career and Leadership Development Career Planning and development initiatives- Succession Planning and talent management- Leadership development programs-Coaching and mentoring in organizations- Contemporary issues in Learning and Development-Digital transformation, Gamification, Mobile learning, Diversity and inclusion in training programs- Ethical considerations in L&D.

Relevant Case study discussion in all units

Reference Books:

1. Raymond A. Noe, **Employee Training and Development**, 2024, 9th Edition, McGraw-Hill Education
2. Rosemary Harrison, Learning and Development, Latest CIPD Edition (2023), Chartered Institute of Personnel and Development (CIPD), UK
3. Kathy Beevers & Andrew Rea, Learning and Development Practice in the Workplace, 4th Edition (2022), Kogan Page / CIPD Publishing
4. B. Janakiram & D. Ravindra, Training and Development: Text, Research and Cases, 2nd Edition (2023), Biztantra / Dreamtech Press

MBA (III Sem)		L	T	P	Cr
	24MB32 Performance and Compensation Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To introduce the fundamentals of Performance Management.
CEO2	To provide knowledge of the Performance Management Cycle and appraisal methods.
CEO3	To develop understanding of performance monitoring, coaching, and counseling.
CEO4	To familiarize students with the concepts and strategies of Compensation Management.
CEO5	To provide knowledge of compensation structures and employee benefits.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts and components of Performance Management.
CO2	Apply the Performance Management Cycle and appraisal techniques.
CO3	Analyze performance monitoring and employee development practices.
CO4	Analyze compensation and reward strategies in organizations.
CO5	Design compensation structures and incentive plans to support employee engagement.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	2	1	2
CO3	2	3	3	1	3
CO4	3	3	2	2	2
CO5	3	3	3	2	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of Human Resource Management concepts

UNIT- I

Introduction to Performance Management- Definition-Significance-Objectives-Evaluation of Performance Management Systems (PMS)-Distinction between performance appraisal and performance management- Key Performance Areas (KPA's) and Key Result Areas (KRAs)- Performance Standards and goal setting-Competency Mapping and assessment- Strategies for effective performance management.

UNIT- II

Performance Management Cycle: Performance Planning –Performance monitoring and feedback- Performance Appraisal and Evaluation- Performance review and Development- Tools and Techniques of Performance Appraisal. Planning Individual Performance- Strategic Planning –Linkages to strategic planning- Barriers to performance planning.

UNIT-III

Performance Monitoring and Counseling: Supervision- Objectives and Principles of Monitoring- Monitoring Process- Periodic reviews- Problem solving- engendering trust -Role efficiency- Coaching- Counseling and Monitoring- Concepts and Skills.

UNIT -IV

Compensation Management: Concept and definition – objectives and dimensions of Compensation Management-Components of Compensation – factors influencing compensation –Role of compensation and Reward in Modern Organizations Compensation as a Retention strategy- aligning compensation strategy with business strategy -Theoretical Foundations of Compensation.

UNIT V

Compensation Structure: Developing salary structures and pay grades- Market based pay structures- Internal equity and external competitiveness- Executive Compensation- Components and design of executive pay packages- long – term incentives and executive compensation. Incentive plans and benefits- Employee benefits and services. Linking compensation to employee engagement and retention.

Relevant Case study discussion in all units

References

1. Prem Chadha: —Performance Management, Macmillan India, New Delhi, 2008.
2. Michael Armstrong & Angela Baron, —Performance Management: The New Realities, Jaico Publishing House, New Delhi, 2010.
3. T.V.Rao, —Appraising and Developing Managerial Performance, Excel Books, 2003.
4. David Wade and Ronad Recardo, —Corporate Performance Management, Butter Heinemann, New Delhi, 2002.
5. Dewakar Goel: —Performance Appraisal and Compensation Management, PHI Learning, New Delhi, 2009
6. A.M. Sarma —Performance Management Systems, Himalaya Publishing House, New Delhi, 2010.

MBA (III Sem)		L	T	P	Cr
	24MB33 Strategic Human Resource Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a comprehensive understanding of Strategic Human Resource Management and its role in achieving organizational objectives.
CEO2	To develop the ability to align HR strategies and practices with business strategies for organizational effectiveness.
CEO3	To equip the knowledge of strategic workforce planning, talent management, performance management, and reward systems.
CEO4	To enhance understanding of strategic human resource development and evaluation of HR contributions to organizational success.
CEO5	To address emerging challenges and opportunities in SHRM through strategic decision-making and ethical practices.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, frameworks, and strategic significance of Human Resource Management in organizations.
CO2	Develop and align HR strategies and workforce plans with organizational goals and business strategies.
CO3	Design and implement strategic HR practices related to recruitment, retention, performance management, and reward systems.
CO4	Evaluate strategic HR development initiatives and assess their effectiveness in enhancing organizational performance.
CO5	Analyze HR evaluation methods, HR outsourcing strategies, and the strategic contribution of HR in a dynamic business environment.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	2	3
CO3	3	3	3	2	3
CO4	2	3	3	2	2
CO5	2	3	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of Human Resource Management concepts

UNIT-I

Human Resource Strategy: Introduction to Strategic Human Resource Management - Evaluation objectives and Importance of Human Resources Strategy- Strategic fit – A conceptual framework - Human Resources contribution to strategy - Strategy driven role behaviors and practices – Theoretical Perspectives on SHRM approaches.

UNIT-II

Strategic Human Resource Planning: Objectives, benefits, levels of strategic planning -Activities related to strategic HR Planning-Basic overview of various strategic planning models-Strategic HR Planning model-Components of the strategic plan.

UNIT-III

Strategy Implementation: Strategy implementation as a social issue-The role of Human Resource- Work force utilization and employment practices-Resourcing and Retention Strategies-Reward and Performance management strategies.

UNIT-IV

Strategic Human Resource Development: Concept of Strategic Planning for HRD Levels in Strategic HRD planning-Training and Development Strategies-HRD effectiveness.

UNIT-V

Human Resource Evaluation: Overview of evaluation - Approaches to evaluation, Evaluation Strategic contributions of Traditional Areas - Evaluating Strategic Contribution of Emerging Areas-HR as a Profit centre and HR outsourcing strategy.

Relevant Case study discussion in all units

References:

1. Charles R. Greer: “Strategic Human Resource Management” - A General Manager Approach - Pearson Education, Asia
2. Fombrum Charles & Tichy: “Strategic Human Resource Management” - John Wiley Sons, 1984
3. Dr. Anjali Ghanekar “Strategic Human Resource Management” Everest Publishing House, Pune 2009
4. Tanuja Agarwala “Strategic Human Resource Management” Oxford University Press, New Delhi 2014.
5. Srinivas R Kandula “Strategic Human Resource Development” PHI Learning PVT Limited, New Delhi 2009
6. Dreher, Dougherty “Human Resource Strategy” Tata Mc Graw Hill Publishing Company Limited, New Delhi 2008.

MBA (III Sem)		L	T	P	Cr
	24MB34 Talent Acquisition and Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Understand the concepts, importance, and strategic role of talent acquisition and talent management in organizations.
CEO2	To Explain job analysis, competency profiling, employer branding, and employee value proposition in attracting talent.
CEO3	To Analyze various sourcing and recruitment strategies to meet organizational talent requirements.
CEO4	To Apply selection and onboarding practices while considering legal, ethical, and diversity-related aspects.
CEO5	To Analyze recruitment metrics, analytics, and emerging trends in talent acquisition for improving hiring effectiveness.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, scope, challenges, and strategic importance of talent acquisition and workforce planning.
CO2	Explain job analysis, competency-based profiling, employer branding, and employee value proposition practices.
CO3	Analyze sourcing and recruitment strategies, including social media recruitment, AI, HR analytics, and talent pipelines.
CO4	Apply appropriate selection and onboarding methods while addressing legal, ethical, and diversity considerations.
CO5	Analyze recruitment metrics, analytics, and emerging trends in talent acquisition to improve organizational hiring outcomes.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	2	1	1	1
CO3	3	3	1	2	1
CO4	3	2	2	3	2
CO5	2	3	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of Human Resource Management concepts

UNIT-I

Introduction to Talent Acquisition: Definition and Scope of Talent and Talent Management, Importance of Talent Management, historical context of talent management, Challenges and Dilemmas, Workforce Planning and forecasting. Talent acquisition in the context of globalization and gig economy.

UNIT-II

Job Analysis and Employer Branding: Job Analysis-Process-Methods. Job description and Job Specification. Competency based job profiling- Employer Branding-Concepts, strategies and best practices. Employee Value Proposition (EVP).

UNIT-III

Sourcing and Recruitment Strategies: Internal Vs External Sourcing-Recruitment Methods- Social media recruitment –Use of AI and HR analytics in sourcing- Talent pools and Pipelines- Recruitment Process Outsourcing (RPO).

UNIT-IV

Selection and Onboarding: Selection tools-Resumes, Application forms, Interviews (Types), Psychometric Tests-Assessment Centers, Group Discussions, Case Interviews-Reference & background checks-Legal and ethical issues in selection-Effective onboarding practices – strategic importance and design. Diversity and Talent. Talent management and future directions.

UNIT-V

Metrics and Evaluation in Talent Acquisition: Key Recruitment Metrics-Cost per hire, Time to fill, Quality of hire, Offer acceptance rate. Recruitment Analytics and Dashboards. Retention vs Acquisition. Future of Talent Acquisition – AI, Automation, Remote hiring, DEI in hiring.

Relevant Case study discussion in all units

References:

1. Collings, D.G., Mellahi, K. & Cascio, W.F. (2017). The Oxford Handbook of Talent Management: Oxford University Press.
2. Wilcox, M. (2016). Effective Talent Management: Aligning Strategy, People and Performance. Routledge.
3. Sparrow, P., Scullion, H. & Tarique, I. (eds) (2014) Strategic Talent Management: Contemporary Issues in Global Context. Cambridge: Cambridge University Press.
4. Sparrow, P., Hird, M., and Cooper, C.L. (2015).

MBA (III Sem)		L	T	P	Cr
	24MB35 Investment and Portfolio Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a comprehensive understanding of investment concepts, investment alternatives, and the functioning of security markets in India.
CEO2	To develop the ability to analyses risk and return characteristics of various financial securities and apply valuation techniques.
CEO3	To equip the fundamental and technical analysis skills for informed investment decision-making.
CEO4	To impart knowledge of portfolio construction, diversification strategies, and modern portfolio theories.
CEO5	To evaluate portfolio performance and assess the effectiveness of mutual fund investments using various performance measures.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe investment concepts, investment avenues, and the Indian capital market.
CO2	Explain return, risk, and valuation of financial securities.
CO3	Apply fundamental and technical analysis techniques and assess market efficiency for making investment decisions.
CO4	Analyze portfolio construction and selection using portfolio management models.
CO5	Analyze portfolio and mutual fund performance using performance evaluation measures.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	1	-	1	-
CO2	2	2	-	1	-
CO3	2	3	-	1	-
CO4	2	3	1	2	1
CO5	2	3	1	2	1

1= Slight (low) 2=Moderate (Medium) 3=Substantial (High)

Prerequisite: Basics of financial management concepts

UNIT-1

Concept of Investment: Investment Vs Speculation, and Security Investment Vs Non- Security Forms of Investment-Investment Environment in India. Investment Process - Sources of Investment Information, Security Markets – Primary and Secondary – Types of securities in Indian Capital Market, Market Indices. Calculation of SENSEX and NIFTY.

UNIT-II:

Return and Risk: Meaning and Measurement of Security Returns. Meaning and Types of Security Risks: Systematic Vs Non-systematic Risk. Measurement of Total Risk - Intrinsic Value Approach to Valuation of Bonds - Preference Shares and Equity Shares.

UNIT-III:

Fundamental Analysis: – Economy, Industry and Company Analysis, Technical Analysis – Concept and Tools and Techniques Analysis – Technical Analysis Vs Fundamental Analysis - Efficient Market Hypothesis; Concept and Forms of Market Efficiency.

UNIT-IV:

Elements of Portfolio Management: - Portfolio Models – Markowitz Model, Efficient Frontier and Selection of Optimal Portfolio. Sharpe Single Index Model and Capital Asset Pricing Model, Arbitrage Pricing Theory.

UNIT-V:

Performance Evaluation of Portfolios: - Sharpe Model –Treynor –Jensen's Model- Fama Decomposition - Evaluation of Mutual Fund.

Relevant Case study discussion in all units

References:

1. Fisher DE and Jordon RJ, Security Analysis and Portfolio Management, PHI, New Delhi
2. Ambika Prasad Dash, Security Analysis and Portfolio Management, IK Int Pub House, New Delhi
3. Satyanarayana, Security Analysis and Portfolio Management, Discovery Publishing House, New Delhi
4. Hirt and Block, Fundamentals of Investment Management, Tata Mc Graw Hill, New Delhi
5. Reily Frank K, Investment Analysis and Portfolio Management, Cengage, New Delhi
6. Bodie,Kane,Marcus and Mohanty, Investments, TataMcGraw Hill, New Delhi
7. Peter Lynch, One Up on Wall Street, Simon & Schuster Paperbacks, New York
8. Sharpe W, Alexander,GJ., & Baily JV., Investments, TMH, New Delhi
9. Avadhani, VA, SAPM, Himalaya Publishers.
10. Bhalla, VK Investment Management, S.Chand., New Delhi
11. Preeti Singh, Investment Management, Himalaya Publishers.
12. Timothy Vick, How to Pick Stocks like Warren Buffett, TMH, New Delhi

MBA (III Sem)		L	T	P	Cr
	24MB36 Financial Markets and Services	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a comprehensive understanding of the structure and functioning of the financial system and financial markets.
CEO2	To familiarize with various financial services and the regulatory framework governing them.
CEO3	To develop knowledge of venture capital financing, leasing, and microfinance models in India.
CEO4	To impart understanding of credit rating agencies, factoring, forfeiting, and bill discounting mechanisms.
CEO5	To understand mutual funds, securitization, depository services, and their role in the financial sector.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the structure, components, and functions of the financial system and financial markets in economic development.
CO2	Analyze the nature, scope, and regulatory framework of financial services, including merchant banking activities.
CO3	Evaluate venture capital financing, leasing arrangements, and microfinance models operating in India.
CO4	Examine credit rating mechanisms, factoring, forfeiting, and bill discounting services used in financial markets.
CO5	Assess the functioning of mutual funds, debt securitization, depository services, and their significance in the financial system.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	-	2	-
CO2	3	3	-	3	-
CO3	2	3	2	2	2
CO4	3	3	-	2	-
CO5	3	2	-	2	-

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basics of financial management concepts

UNIT-I: Structure of Financial System: Role of Financial System in Economic Development – Financial Markets and Financial Instruments – Capital Markets – Money Markets – Primary Market Operations – Role of SEBI – Secondary Market Operations – Regulation – Functions of Stock Exchanges – Listing – Formalities – Financial Services Sector Problems and Reforms.

UNIT-II: Financial Services: Concept, Nature and Scope of Financial Services – Regulatory Framework of Financial Services – Growth of Financial Services in India – Merchant Banking – Meaning-Types – Responsibilities of Merchant Bankers – Role of Merchant Bankers in Issue Management – Regulation of Merchant Banking in India.

UNIT-III: Venture Capital: Growth of Venture Capital in India – Financing Pattern under Venture Capital – Legal Aspects and Guidelines for Venture Capital, Leasing – types of Leases – Microfinance models: Generic models viz. SHG, Grameen, and Co- operative, variants SHG NABARD model, SIDBI model, SGSY model, Grameen Bangladesh model, credit unions.

UNIT-IV: Credit Rating: Meaning, Functions – Debt Rating System of CRISIL, ICRA and CARE. Factoring, Forfeiting and Bill Discounting – Types of Factoring Arrangements – Factoring in the Indian Context.

UNIT-V: Mutual Funds: Concept and Objectives, Functions and Portfolio Classification, Organization and Management, Guidelines for Mutual Funds, Working of Public and Private Mutual Funds in India. Debt Securitization – Concept and Application – De-mat Services-need and Operations- role of NSDL and CDSL.

Relevant Case study discussion in all units

References:

- 1) Bhole & Mahakud, Financial Institutions and Market, TMH, New Delhi
- 2) Satyanarayana, Financial Markets and Services Discovery Publishing House, New Delhi
- 3) V.A.Avadhani, Marketing of Financial Services, Himalayas Publishers, Mumbai
- 4) DK Murthy, and Venugopal, Indian Financial System, IK Int Pub House
- 5) Anthony Saunders and MM Cornett, Fin Markets & Institutions, TMH,
- 6) Edminister R.D., Financial Institution, Markets and Management.
- 7) Punithavathy Pandian, Financial Markets and Services, Vikas, New Delhi
- 8) Vasanth Desai, Financial Markets & Financial Services, Himalaya, Mumbai

MBA (III Sem)		L	T	P	Cr
	24MB37 Taxation Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a comprehensive understanding of the Indian taxation system, including direct and indirect taxes.
CEO2	To develop the ability to compute income under various heads and determine taxable income in accordance with the Income Tax Act.
CEO3	To equip with knowledge of tax planning techniques for individuals, firms, HUFs, AOPs, and corporate entities.
CEO4	To familiarize with income tax procedures, return filing, assessments, tax audits, and compliance requirements.
CEO5	To apply taxation concepts for effective tax management and lawful minimization of tax liability.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the principles, provisions, and structure of the Indian taxation system and the Income Tax Act, 1961.
CO2	Compute income under various heads and determine total taxable income and tax liability of individuals.
CO3	Apply tax planning techniques and evaluate tax implications for firms, HUFs, and AOPs.
CO4	Analyze corporate taxation provisions including MAT, amalgamation, merger, demerger, and venture capital fund taxation.
CO5	Prepare and file income tax returns and evaluate tax audit procedures, reports, and disclosure requirements.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	3	1
CO2	3	3	1	2	2
CO3	3	3	2	3	2
CO4	3	3	2	3	2
CO5	2	3	2	3	2

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basics of financial accounting concepts

UNIT –I:

General Principles of Tax – Direct and Indirect Taxes – State Power to Levy Tax – Tax System – Provisions of Income Tax Act 1961 – Finance Act – Basic Concepts.

UNIT- II:

Direct tax system: -Income Tax – Deductions, Computation, Payment and Accounting- deductions from Gross Total Income, Rebates and Reliefs and Computation of Taxable Income and Tax Payable, Filing of Income Tax Returns – Provisions, Forms and Due Dates, Notices and Assessments.

UNIT III:

Tax Planning for Firms, HUFs and AOPs- partnership firm under Income Tax Law, tax deductions available to firms, Provisions relating to interest and remuneration paid to partner, Computation of partnership firms 'book profit, Set-off and carry-forward of losses of Firms and taxation of HUFs and Associations of Persons (AOPs).

UNIT IV:

Corporate Taxation- Computation of taxable income, Carry-forward and set-off of losses for companies, Minimum Alternative Tax (MAT), Set-off and Carry-forward of Amalgamation Losses, Tax Planning for Amalgamation, Merger and Demerger of Companies, Tax Provisions for Venture Capital Funds.

UNIT V:

Tax Audit and Accounting for Income Tax - Tax Audit, Qualities and Qualifications Required in Tax Auditors, Forms, Reports and Returns and Tax Reporting and Disclosure in Financial Statements.

Relevant Case study discussion in all units

References:

1. Dr. V.K. Singhania & Dr. Kapil Singhania, Direct Taxes Law and Practice, Taxman Publications Pvt. Ltd., New Delhi.
2. Bhagavati Prasad, Direct Taxes Law and Practice, Wishwa Prakashan, New Delhi.
3. Dinkar Pagare, Income Tax and Practice, Sultan Chand and Sons, New Delhi.

MBA (III Sem)		L	T	P	Cr
	24MB38 Banking Institutions and Financial Reforms	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the Indian financial system and banking structure.
CEO2	To develop knowledge of banking operations, regulations, policies, and the role of RBI in the financial system.
CEO3	To familiarize with financial institutions, development banks, and their contribution to economic growth
CEO4	To impart knowledge of new financial instruments, institutions, and recent developments in the banking sector.
CEO5	To analyze banking and financial sector reforms and their impact on economic development.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the structure, evolution, and functioning of the Indian financial and banking system.
CO2	Analyze the role, functions, policies, and regulatory framework of RBI, commercial banks, and NBFCs.
CO3	Evaluate the significance and operations of development financial institutions and their role in capital markets.
CO4	Examine emerging financial institutions, financial instruments, and regulatory guidelines governing the banking sector.
CO5	Assess banking and financial sector reforms, including debt market reforms, foreign exchange reforms, monetary reforms, and cryptocurrency regulations.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	1	3	2
CO3	2	3	2	2	2
CO4	2	3	1	3	2
CO5	2	3	2	3	2

1=Slight (low),2=Moderate (Medium),3=Substantial (High)

Prerequisite: Basics of financial management concepts

UNIT – I

Financial System in India: Introduction - Evolution of Banking - Phases of development - RBI and the Financial System - Committees on Banking Sector Reforms - Prudential Banking -- RBI Guidelines and directions- financial sector reforms.

UNIT – II

Banking system: - Organization, Structure and Functions of RBI and Commercial Banks: Introduction - Origination, Structure and Functions of RBI and Commercial Banks - Role of RBI and Commercial Banks - Lending and Operation policies - Banks as Intermediaries - NBFCs - Growth of NBFCs - FDI in Banking Sector - Banking Regulations - Law and Practice.

UNIT – III

Financial Institutions and Development Banking: Introduction - Origin, Growth and Lending Policies of Terms lending Institutions - Working of IDBI - IFCI - STCs - SIDBI - LIC - GIC - UTI - Role of Financial Institutions in Capital Market.

UNIT – IV

New Financial Instruments and Institutions: Private Banks - Old generation and New generation private banks - Foreign Banks - NSE - Depositories - DFHI - New Equity and Debt Instruments - SEBI and RBI guidelines.

UNIT – V

Financial sector reforms: Reforms in banking sectors – Reforms in Debt market – reforms in foreign exchange market – Monetary reform- currency reforms – crypto currency regulations

Relevant Case study discussion in all units

References:

1. Koch W Timothy and Scott S Macdonald, "Bank Management" Thomson (South-Western), Bangalore 2005 (Text Book)
2. Khan M Y., "Indian Financial System", Tata Mc Graw Hill, New Delhi, 2004
3. Srivastava, RM ., "Management of Indian Financial Institutions", Himalaya Publishing House, Mumbai, 2005
4. Avadhani V A., "Investments and Securities Markets in India", Himalaya Publishing House, Mumbai, 2004
5. Srinivasan NP and Saravanavel, P., "Development Banking in India and Abroad", Kalyani Publications, Ludhiyana, 2001

MBA (III Sem)		L	T	P	Cr
	24MB39 Consumer Behavior	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the fundamental concepts, theories, and models of consumer behaviour.
CEO2	To analyse the psychological factors that influence consumer decision-making and purchasing behaviour.
CEO3	To evaluate the impact of social, cultural, economic, and demographic factors on consumer behaviour.
CEO4	To apply consumer decision-making concepts and communication strategies in marketing situations.
CEO5	To understand consumer rights, consumer protection mechanisms, and ethical responsibilities of marketers.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, evolution, and models of consumer behaviour and buyer decision processes.
CO2	Analyze the influence of motivation, perception, personality, learning, memory, and attitudes on consumer behaviour.
CO3	Examine the impact of social, cultural, economic, demographic, and family influences on consumer decisions.
CO4	Apply consumer decision-making theories, brand loyalty concepts, innovation diffusion, and persuasive communication strategies.
CO5	Evaluate consumer protection laws, consumer rights, and the role of consumer protection agencies in safeguarding consumer interests.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	2	3	1	1	1
CO3	2	3	2	3	1
CO4	3	3	2	2	2
CO5	2	2	3	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: fundamental knowledge of marketing and management principles

UNIT-I

Introduction to Consumer Behavior: Understanding consumers and market segments, Evolution of consumer behavior, Models of Buyer Behavior, Consumer Black box model – Howard Model, Howard-Sheth Model, Webster and Wind Model.

UNIT-II

Consumer as an individual - Psychological Foundations of Consumer Behavior: Consumer Motivation, Perception, Personality and Behavior, Learning and Behavior Modification, Information Processing, Memory Organization and Function, Attitude Formation and Attitude Change.

UNIT-III

Consumer in social context: Social and Cultural Environment, Economic, Demographic, Cross Cultural and Socio–Cultural Influences, Social Stratification, Reference Groups and Family influences.

UNIT-IV

Consumer as decision maker: Consumer decision making process - High and Low Involvement - Pre-purchase Processes, Post Purchase processes, Consumption and evaluation, Brand Loyalty and Repeat Purchase Behavior - Diffusion of innovation - Communication and Consumer Behavior –Designing persuasive communication.

UNIT-V

Consumerism: The roots of consumerism – Consumer safety – consumer privacy – consumer information, legislative responses to consumerism and marketer responses to consumer issues – consumer protection act, 1986 – Central consumer protection council – state consumer protection councils, consumer disputes redressal agencies, consumer disputes redressal forum, National Consumer Disputes Redressal Commission.

Relevant Case study discussion in all units

References:

1. Leon G. Schiffman, Joseph Wisenblit, S. Ramesh Kumar, Pearson India, 2016
2. Ramneek Kapoor, Nnamdi O Madichie: “Consumer Behavior” Text and Cases”, TMH, New Delhi, 2012.
3. Ramanuj Majumdar: “Consumer Behavior insight from Indian Market”, PHI Learning, New Delhi, 2011
4. David L Loudon and Albert J Della Bitta, “Consumer Behavior” 4/e, TMH, New Delhi, 2002
5. M.S.Raju: “Consumer Behavior Concepts, applications and Cases”, Vikas Publishing House, New Delhi, 2013.

MBA (III Sem)		L	T	P	Cr
	24MB40 Retail Marketing	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To introduce the fundamentals of retailing and the retail business environment.
CEO2	To provide knowledge of retail store location, layout, and visual merchandising.
CEO3	To develop understanding of merchandise planning, inventory management, and pricing strategies.
CEO4	To familiarize students with retail promotion, selling, and customer relationship management.
CEO5	To provide knowledge of global retailing, online retailing, and emerging retail formats.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, formats, and business environment of retailing.
CO2	Understand store location, layout, and visual merchandising principles in retail planning.
CO3	Describe merchandise planning, inventory control, and retail pricing strategies.
CO4	Apply retail promotion and customer service strategies to improve retail performance.
CO5	Analyze global retail trends, online retailing, and innovative retail formats.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	2	1	2
CO3	3	3	2	2	2
CO4	3	2	3	2	3
CO5	2	3	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic concepts of Marketing Management

UNIT- I

An overview of Retailing - Types of stores - Product Retailing vs. Service Retailing- Non store Retailing -Retail strategy - Achieving competitive advantage and positioning Retailing environment - Legal, Social, Economic, Technological, issues - Trends in the Indian Retailing Industry.

UNIT-II

Retail store location and layout - Country/Region analysis - Trade area analysis - Site evaluation and selection - Store design and layout - Comprehensive store planning - Exterior design and layout - Interior store design and layout – visual merchandising – elements of visual merchandising.

UNIT-III

Planning merchandise needs and merchandise budgets - Methods for determining inventory evaluation - Assortment planning, buying and vendor relations - Merchandise pricing - Price strategies - Psychological pricing - Mark-up and markdown strategies.

UNIT-IV

Communicating with the retail customer - Retail promotion mix-Advertising - Sales promotion - Publicity – Push and Pull strategies in retailing - Retail selling process - Retail database- In-store customer service.

UNIT- V

Globalization and changing retail formats – Online retailing - International Retailing – Opportunities and Challenges - Market entry formulas - New customized formats (customized stores, portable stores, merchandise depots, retail theatre, service malls, customer- made stores, interactive kiosk 'shopping arcades')

Relevant Case study discussion in all units

References:

1. Chetan Bajaj, Tuli & Srivastava, Retail Management, Oxford University Press, New Delhi.2010
2. Giridhar Joshi, Information Technology For Retail, Oxford University Press, New Delhi.2009
3. Swapna Pradhan, Retail Management, Text & Cases, Tata McGraw-Hill Publishing company, New Delhi, 2008
4. Ron Hasty and James Reardon, Retail Management. McGraw-Hill Publication, International Edition. Fernie, Principles of Retailing, Elsevier Publishing, 2010.

MBA (III Sem)		L	T	P	Cr
	24MB41 Customer Relationship Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, importance, and strategic role of Customer Relationship Management in organizations.
CEO2	To analyse customer acquisition, retention, and relationship-building strategies for enhancing customer value.
CEO3	To apply CRM technologies, database systems, and analytical tools to manage customer information effectively.
CEO4	To evaluate the role of Sales Force Automation, marketing channels, and CRM software in improving business performance.
CEO5	To understand emerging trends, ethical issues, and e-CRM practices in modern business environments.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the fundamentals, processes, and strategic importance of Customer Relationship Management.
CO2	Analyze customer acquisition, retention, and relationship management practices for developing long-term customer value.
CO3	Apply database management, data warehousing, data mining, and CRM technologies to support customer relationship activities.
CO4	Examine the role of Sales Force Automation, marketing channels, and CRM software in enhancing customer relationships.
CO5	Evaluate e-CRM practices, CRM performance measures, implementation strategies, and ethical issues in CRM.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	2	2	2
CO3	3	3	1	1	1
CO4	2	2	2	2	3
CO5	2	3	3	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic understanding of marketing principles, business statistics and computer applications

UNIT-I: Customer Relationship Management Fundamentals: Definition and Significance of CRM – Critical success factors for a winning CRM program – Emergence of CRM practice – CRM Strategy, Stages of relationship – Issues of relationship – CRM cycle – Customer Life Time Value – 7 C's of CRM - Application areas.

UNIT-II : Building Customer Relationship Management and CRM Implementation: Requisites for Effective Customer acquisition – Customer Knowledge Management for Effective CRM – Customer Retention Process – Strategies to Prevent Defection and Recover Lapsed Customers – CRM framework for Implementation – Implementing CRM process – The dynamics of Relationships, The relationship-oriented organization - Integration of CRM with ERP System – Barriers to effective CRM – Gartner's Competency model of CRM.

UNIT-III: Functional Components of CRM: Database Management in CRM – Relationship data management-Database Construction – Data Warehousing – architecture of Data Warehousing - Data Mining Characteristics – Data Mining tools and techniques – Meaning of Call Centre – Significance and Advantages of Call Centre – Multimedia Contact Centre - Important CRM software for Multimedia Contact Centre

UNIT-IV: Sales Force Automations (SFA): Definition and need of Sales Force Automation – Barriers to successful Sales Force Automation – functionality and technological aspect of Sales Force Automation – data synchronization – flexibility and performance – Impact of CRM on Marketing Channels – Meaning – How does the traditional distribution channel structure support customer relationship – Influence of the channels on pricing and the formation of relationships – The relationship policy to improve size, quality and relationship with the customer base - emerging channel trends that impact CRM

UNIT-V: Trends and Issues in CRM: CRM in e- business (B2B & B2C) – Measuring the Effectiveness of CRM – Factors Influencing the future of CRM – E-CRM in Business – Features of e-CRM – Advantages of e-CRM. The best CRM implementation strategies –Privacy and ethics Consideration in CRM implementation.

Relevant Case study discussion in all units

References:

1. V. Kumar Werner Reinartz – Customer Relationship Management - Concept, Strategy, and Tools Third Edition – springer
2. Ed Peelen: "Customer Relationship Management" Pearson, Education
3. Roger J Baran, Robert J Galka and Daniel P Strunk: "Customer Relationship Management" Cengage learning
4. S.Shanmuga sundaram: "Customer Relationship Management" Prentice Hall of India.
5. Alok Kumar, Chabbi Sinha & Rakesh Kumar – Customer Relationship Management: Concepts and application – Biztantra, Delhi,2007
6. H. Peeru Mohammad, A/ Sagadevan – Customer Relationship Management – A step by step approach, Vikas publishing house Pvt. Ltd, Delhi, 2008

MBA (III Sem)		L	T	P	Cr
	24MB42 Advertising and Brand Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, importance, and role of advertising and branding in marketing communication.
CEO2	To Explain advertising campaign planning, message design, media selection, and creative strategies.
CEO3	To Analyze advertising organization, agency functions, and methods for evaluating advertising effectiveness.
CEO4	To Apply branding concepts and strategies for building brand identity, positioning, and communication.
CEO5	To Analyze brand equity, brand loyalty, and global branding practices for sustainable brand growth.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, communication process, objectives, and budgeting aspects of advertising.
CO2	Explain advertising campaign development, message design, creative appeals, and media planning decisions.
CO3	Analyze advertising organization structures, agency functions, branding concepts, and advertising effectiveness.
CO4	Apply branding strategies related to brand identity, positioning, extension, portfolio management, and brand communication.
CO5	Analyze brand equity, brand loyalty, international branding, and digital branding practices for organizational success.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	-	1	*
CO2	3	2	-	1	1
CO3	3	3	1	2	1
CO4	3	2	2	2	2
CO5	2	3	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic concepts of Marketing Management

UNIT-I

Basics of Advertising: definition importance and nature; Communication model; Persuasion Process – perception, learning and attitude change and their impact on advertisements; Major advertising decisions and influencing factors; Determining advertising Objectives and budget.

UNIT-II

Developing Advertising Campaign: Determining advertising message and copy - Headline, body copy, logo, illustration and layout; Creative styles and advertising appeals; Media planning – media selection and scheduling.

UNIT-III

Organization and Evaluation of Advertising Efforts: In-house arrangements; Using advertising agencies – selection, compensation and appraisal of advertising agency; Evaluating Advertising Effectiveness. Branding concepts - definition of brand, Importance of branding Brand personality, brand image, brand identify, brand equity and brand loyalty; Product vs. Corporate branding: Major branding decisions.

UNIT-IV

Identifying and selecting brand name Building brand personality, image and identity, Brand positioning and re-launch; Brand extension; Brand portfolio; communication for branding Enhancing brand image through sponsorship and even management.

UNIT-V

Managing Brand Equity and Loyalty: Brand Building in Different Sectors - Customers, industrial, retail and service brands. Building brands through Internet. Developing International Brands: Pre-requisites and process; Country-of-origin effects and global branding; Building Indian brands for global markets.

Relevant Case study discussion in all units

References:

1. S.H.H Kazmi and SatishK.Batra : Advertising and sales promotion, Excel books Cowley. D: Understanding Brands, ,Kogan Page Ltd
2. George E.Belch& Michael A. Balch : Advertising and Promotion, TMH
3. Aaker, Myers &Batra : Advertising Management , Prentice Hall.
4. Wells,Moriarity&Burnett : Advertising Principles & practices , Prentice Hall.

MBA (III Sem)		L	T	P	Cr
	24MB43 Predictive Analytics	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop knowledge of statistical and regression techniques for predictive analytics and business decision-making.
CEO2	To apply linear and multiple regression models to identify relationships among variables and evaluate model performance.
CEO3	To develop competency in logistic and multinomial regression methods for classification, probability estimation, and predictive modeling.
CEO4	To enable students to apply forecasting techniques and time-series models to analyze trends and generate future predictions.
CEO5	To develop an understanding of probability theory, sampling concepts, and index number techniques for quantitative analysis and economic/business research.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Apply simple linear regression techniques to analyze relationships between variables and interpret business model performance.
CO2	Evaluate multiple regression models for effective predictive analysis and decision-making.
CO3	Illustrate logistic and multinomial regression methods for classification, probability estimation, and model validation
CO4	Apply forecasting and time-series techniques to predict future trends and support business analytics.
CO5	Construct index numbers and apply probability and sampling concepts to solve quantitative business problems.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3		1	1
CO2	1	3	1	1	1
CO3	3	3	1		1
CO4	1	3	1	2	1
CO5	1	3	1	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Quantitative analysis techniques and basics of Business analytics

UNIT-I

Linear Regression: Coefficient of determination-- Significance test, Residual analysis - Standard Error - Ratio of variance- Galton Graph – Ratio of Regression – Interpretation of Galton's Graph - Confidence and Prediction intervals.

UNIT-II

Multiple Linear Regression: Coefficient of determination--Interpretation of regression coefficients-- Categorical variables— heteroscedasticity - Multi-co linearity outliers-- Auto regression and Transformation of variables—Regression--Model Building.

UNIT-III

Logistic and Multinomial Regression: Logistic function-- Estimation of probability using Logistic regression, Variance-- Wald Test-- Hosmer Lemshow Test-- Classification Table-- Gini Co-efficient.

UNIT-IV

Forecasting: Moving average-- Exponential Smoothing-- Casual Models. Time Series Analysis-- Moving Average Models-- ARIMA models-- Multivariate Models.

UNIT-V

Index numbers: construction of Index numbers – selection of items- selection of base – selection of average and system of weighting – construction of various types of index numbers. Theory of probability and sampling: statistical probability – the Laws of probability – permutations and combinations.

Relevant Case study discussion in all units

References:

1. Anderson, Sweeney and Williams —Statistics for business and economics, Cengage Learning, 2011.
2. Richard I. Levin. David S. Rubin, —Statistics for Management, Pearson Education, 2012.
3. Richard A. Johnson, Irwin Miller and John Freund, —Probability and Statistics for Engineers, Pearson Education, 2014.
4. Ronald E. Walpole, Raymond H. Meyers, Sharon L. Meyers, —Probability and Statistics for Engineers and Scientists, Pearson Education.
5. Asthana B.N., —Elements of Statistics, Chaitanya publishing house, Allahabad.

MBA (III Sem)		L	T	P	Cr
	24MB44 Text, social media & Web Analytics	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide knowledge of text analytics and analytical tools for extracting insights from structured and unstructured data.
CEO2	To develop an understanding of social media analytics, social networks, and semantic web technologies.
CEO3	To familiarize with knowledge representation, ontology concepts, and social-semantic applications.
CEO4	To equip with skills to analyze web data using web analytics techniques and strategies.
CEO5	To use web analytics tools for measuring, monitoring, and improving online performance.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe text analytics concepts, analytical approaches, and tools used for data analysis.
CO2	Discuss social media analytics, semantic web concepts, and social network analysis.
CO3	Explain ontology, knowledge representation, and social-semantic applications.
CO4	Illustrate web analytics techniques, strategies, and performance measurement methods.
CO5	Explain web analytics tools and their role in evaluating website performance.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	1	-	-	-
CO2	2	2	-	1	-
CO3	2	2	-	1	-
CO4	2	3	-	1	1
CO5	2	2	-	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Computer Applications, Business Analytics, Statistics, and Internet Technologies.

UNIT-I: Text Analytics: Text Analytical Approach and Tools to Analyze Data: Analytical Approaches- History of Analytical Tools-- Introducing Popular Analytical Tools-- Comparing Various Analytical Tools. Text mining –unstructured text, episode rule discovery for texts, hierarchy of categories, text clustering.

UNIT-II: Social Media Analytics: Introduction to Semantic Web: Limitations of current Web- Development of Semantic Web-- Emergence of the Social Web. Social Network analysis: Development of Social Network Analysis -Key concepts and measures in network analysis. Electronic sources for network analysis: Electronic discussion networks- Blogs and online communities - Web-based networks.

UNIT-III: Knowledge representation on the Semantic web: Ontology and their role in the Semantic Web: Ontology-based knowledge Representation – Ontology languages for the Semantic Web: Resource Description Framework - Web Ontology Language. Modeling and aggregating social network data: State-of-the-art in network data representation - Ontological representation of social individuals - Ontological representation of social relationships - Aggregating and reasoning with social network data. Social-semantic applications: Generic Architecture- Sesame- Elmo – Graph util, Flink-Open academia. Social network extraction: Survey method-electronic data extraction- Data collection Optimization prediction- Evaluation.

UNIT-IV: Understanding web analytics: The foundations of Web analytics: Techniques and Technologies – Present and Future of Web analytics.---Data Collection: Importance and Options –Web server log files: Click stream data – User submitted information – Web server performance data – Page tags –First and third party tracking - Web Analytics Strategy: Key performance indicators – Web analytics process – Heuristics evaluations – Site visits – Surveys – Measuring reach – Measuring acquisition – Measuring conversion – Measuring retention – Security and privacy implications of Web analytics.

UNIT-V: Web Analytics Tools: Content organization tools – Process measurement tools – Visitor segmentation tools – Campaign analysis tools – Commerce measurement tools – Google analytics – Omniture – Web trends – Yahoo! Web analytics. Google Analytics: Key features and capabilities – Quantitative and qualitative data - Working of Google analytics – Privacy - Tracking visitor clicks, Outbound links and Non-HTML files.

Relevant Case study discussion in all units

References:

1. Bernard J. Jansen, —Understanding User-Web Interactions via Web analytics, Morgan and Claypool, 2009.
2. Avinash Kaushik, —Web Analytics2.0, John Wiley and Sons, 2010.
3. Brian Clifton, —Advanced web metrics with Google analytics, John Wiley and Sons, 2012.
4. Justin Cutroni, —Google Analytics, O'Reilly, 2015.
4. Jerri L. Ledford, Joe Teixeira and Mary E. Tyler, —Google Analytics, John Wiley and Sons, 2013.

MBA (III Sem)		L	T	P	Cr
	24MB45 Essentials of Business Analytics	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop an understanding of business analytics concepts, statistical methods, and data visualization techniques for effective business decision-making.
CEO2	To develop competency in applying measures of central tendency, dispersion, and descriptive statistical tools to analyze and interpret business data.
CEO3	To provide knowledge of probability theory, probability distributions, and sampling techniques for addressing uncertainty and supporting managerial decision-making.
CEO4	To enable students to apply statistical inference, hypothesis testing, and analysis of variance (ANOVA) to draw valid conclusions from business data.
CEO5	To develop the ability to apply correlation, regression, and time series analysis techniques for forecasting and predictive business analytics.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand business analytics concepts, data types, data collection methods, and data visualization techniques for decision-making.
CO2	Apply statistical measures to analyze and interpret business data distributions and variability.
CO3	Utilize probability theories and probability distributions to support business decision-making under uncertainty.
CO4	Analyze sampling techniques and estimation methods for statistical inference and confidence interval construction.
CO5	Apply hypothesis testing, correlation, regression, and time series techniques for forecasting and predictive analytics.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	1	1
CO2	1	3	1	2	1
CO3	2	3	1	1	1
CO4	2	3	1	2	1
CO5	1	3	1	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of quantitative analysis and business analytics

UNIT I: Introduction to Business Analytics, Types of data, Integrating Analytics with business, Business Analytics for Competitive Advantage, Descriptive, Predictive, and Prescriptive Analytics, Dashboards History; Subdivisions within Statistics; Data collection, Editing, Classification, Tabulation, Diagrammatic and Graphical representation of data.

UNIT II: Measures of Central tendency and Dispersion: Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Mean Deviation, Quartile Deviation, Standard Deviation, Skewness, Kurtosis and Moments.

UNIT III: Probability and Probability Distributions: Introduction to Probability, Probability Rules, Probabilities under Conditions of Statistical Independence, Probabilities under Conditions of Statistical Dependence, Revising Prior Estimates of Probabilities, Bayes' Theorem, Random Variables, Use of Expected Value in Decision Making, Binomial Distribution, Poisson Distribution, Normal Distribution.

UNIT IV: Sampling and Estimation: Random Sampling, Introduction to Sampling Distributions, Relationship Between Sample Size and Standard Error, Point Estimates, Interval Estimates, Confidence Intervals, Calculating Interval Estimates of the Mean from Large Samples.

UNIT V: Testing of Hypotheses: Hypothesis, Steps in Hypothesis Testing, Measuring the Power of a Hypothesis Test, Hypothesis Testing of Means and Proportions, Analysis of Variance, One way ANOVA and Two-way ANOVA, Non-parametric tests: Chi-Square Test, The Sign Test for Paired Data, The MannWhitney U Test, Kruskal-Wallis Test, The Kolmogorov-Smirnov test. Correlation, Regression and Time Series: Correlation, Product moment correlation, Rank correlation, Bi-variate correlation, Regression, Simple linear Regression, Line of best fit, Time Series, Trend Analysis, Cyclical Variation, Seasonal Variation, Irregular Variation, Time Series Analysis in Forecasting.

Relevant Case study discussion in all units

References:

1. Richard I. Levin & David S. Rubin, Statistics for Management, PHI.1999, New Delhi.
2. Kishor S. Trivedi, Probability and Statistics with Reliability, Queuing and Computer Science Applications, John Wiley & Sons, Singapore, 2002.
3. John E. Freund & Ronald E. Walpole, Mathematical statistics, PH, New Jersey, 1980.
4. E.L. Lehmann, Testing Statistical Hypotheses, John Wiley & Sons, New York, 1986.
5. S.P. Gupta, Statistical Methods, Sultan Chand & Sons, New Delhi 1998.
6. Sundar Rao P.S.S, Richard J, Introduction to biostatistics – A manual for students in Health Sciences, PHI Learning Pvt. Ltd. 1996, New Delhi.
7. Susan Milton, Statistical methods in the Biological and Health Sciences, 1999, McGraw-Hill

MBA (III Sem)		L	T	P	Cr
	24MB46 Marketing Analytics	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Provide a strong foundation in marketing analytics concepts, models, and performance metrics.
CEO2	To develop analytical skills to assess markets, competitors, customers, and business opportunities using data-driven approaches.
CEO3	To apply analytical techniques for product, pricing, distribution, and promotion decisions.
CEO4	To enhance the ability to use forecasting, market intelligence, and business strategy tools for effective decision-making.
CEO5	To utilize modern analytics tools and metrics for improving marketing and sales performance in organizations

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain marketing analytics concepts, market assessment tools, and market segmentation techniques.
CO2	Apply competitive analysis, forecasting methods, balanced scorecards, and strategic models for business decision-making.
CO3	Analyze product, service, and pricing decisions using analytical models and pricing techniques.
CO4	Evaluate distribution channel performance and promotion effectiveness using appropriate analytics and metrics.
CO5	Utilize market basket analysis, text analytics, spreadsheet modelling, and sales analytics to improve marketing performance.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	1
CO2	3	3	2	2	1
CO3	3	3	1	2	1
CO4	2	3	1	2	2
CO5	3	3	1	1	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic understanding of marketing principles, business statistics and computer applications

UNIT-I

Introduction: Marketing Analytics, Models and metrics- Market Insight – Market data sources, sizing, PESTLE trend analysis, and Porter five forces analysis – Market segment identification and positioning.

UNIT-II

Competitive Analysis and Business Strategy: Competitor identification, Intelligence gathering, analysis and strategy- Analytics based strategy selection, with strategic models and metrics, Forecasting, balanced scorecard, and critical success factors.

UNIT-III

Product, Service and Price Analytics: Conjoint analysis model, decision tree model, portfolio resource allocation, pricing techniques, pricing assessment, pricing for business markets, price discrimination.

UNIT-IV

Distribution And Promotion Analytics: Retail location selection, distribution channel evaluation, and multi-channel distribution, Promotion budget estimation and allocation, promotion metrics for traditional media and social media.

UNIT-V

Market basket Analysis, Text Analytics, Spread sheet Modelling - Sales Analytics: E Commerce sales mode, sales metrics, profitability metrics and support metrics.

Relevant Case study discussion in all units

References:

1. Stephan Sorger, —Marketing Analytics – Strategic Models and Metrics, Admiral Press, 2013.
2. Mark Jeffery, —Data Driven Marketing: The 15 Metrics Everyone in Marketing should know, Wiley, 2013.
3. Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer, David J. Reibstein —Marketing Metrics: The Definitive Guide to Measuring Marketing Performance, Pearson FT press, 2012.

MBA (III Sem)		L	T	P	Cr
	24MB47 Introduction to Artificial Intelligence	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To introduce the fundamentals of Artificial Intelligence, intelligent agents, and problem-solving concepts.
CEO2	To provide knowledge of uninformed and heuristic search techniques used in AI.
CEO3	To develop understanding of constraint satisfaction and adversarial search techniques.
CEO4	To familiarize students with knowledge representation and reasoning techniques in AI.
CEO5	To provide knowledge of probabilistic reasoning, planning, and expert systems.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the fundamentals of Artificial Intelligence, intelligent agents, and problem-solving techniques.
CO2	Apply search algorithms to solve AI problems efficiently.
CO3	Analyze constraint satisfaction problems and game search strategies.
CO4	Apply knowledge representation and reasoning methods to solve AI problems.
CO5	Analyze probabilistic reasoning, planning techniques, and expert systems for intelligent decision-making.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	1
CO2	3	3	2	2	1
CO3	3	3	1	2	1
CO4	2	3	1	2	2
CO5	3	3	1	1	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Computer Applications, Business Statistics, and Logical Reasoning.

UNIT-I

Introduction, Overview of Artificial intelligence: Problems of AI, AI technique, Tic - Tac - Toe problem. Intelligent Agents, Agents & environment, nature of environment, structure of agents, goal based agents, utility-based agents, learning agents. Problem Solving, Problems, Problem Space & search: Defining the problem as state space search, production system, problem characteristics, issues in the design of search programs.

UNIT-II

Search techniques: Problem solving agents, searching for solutions; uniform search strategies: breadth first search, depth first search, depth limited search, bidirectional search, comparing uniform search strategies. Heuristic search strategies Greedy best-first search, A* search, AO* search, memory bounded heuristic search: local search algorithms & optimization problems: Hill climbing search, simulated annealing search, local beam search

UNIT-III

Constraint satisfaction problems: Local search for constraint satisfaction problems. Adversarial search, Games, optimal decisions & strategies in games, the minimax search procedure, alpha- beta pruning, additional refinements, iterative deepening.

UNIT- IV

Knowledge & reasoning: Knowledge representation issues, representation & mapping, approaches to knowledge representation. Using predicate logic, representing simple fact in logic, representing instant & ISA relationship, computable functions & predicates, resolution, natural deduction. Representing knowledge using rules, Procedural verses declarative knowledge, logic programming, forward verses backward reasoning, matching, control knowledge.

UNIT-V

Probabilistic reasoning: Representing knowledge in an uncertain domain, the semantics of Bayesian networks, Dempster-Shafer theory, Planning Overview, components of a planning system, Goal stack planning, Hierarchical planning, other planning techniques. **Expert Systems:** Representing and using domain knowledge, expert system shells, and knowledge acquisition.

Relevant Case study discussion in all units

Text Books:

1. Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach
2. Artificial Intelligence, Russel, Pearson

References:

1. Artificial Intelligence, Ritch & Knight, TMH
2. Introduction to Artificial Intelligence & Expert Systems, Patterson, PHI
3. Logic & Prolog Programming, Saroj Kaushik, New Age International Expert Systems, Giarranto, VIKAS

MBA (III Sem)		L	T	P	Cr
	24MB48 Python Programming	2	-	2	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a strong foundation in Python programming concepts and programming constructs.
CEO2	To develop problem-solving skills using Python functions and data structures.
CEO3	To familiarize with file handling and object-oriented programming concepts.
CEO4	To develop programming skills for implementing real-world applications using Python.
CEO5	To introduce data science concepts and Python libraries for data analysis.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain Python programming fundamentals, data types, operators, and control structures.
CO2	Apply functions, strings, and lists in Python programming.
CO3	Apply dictionaries, tuples, and sets for solving programming problems.
CO4	Apply file handling and object-oriented programming concepts in Python.
CO5	Explain data science concepts and the use of NumPy and Pandas in Python.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	1	-	-	-
CO2	2	3	-	-	1
CO3	2	3	-	-	1
CO4	2	3	1	-	1
CO5	2	2	-	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Computer Applications, Programming Concepts, and Logical Reasoning.
UNIT-I

History of Python Programming Language, Thrust Areas of Python, Installing Anaconda Python Distribution, Installing and Using Jupyter Notebook. Parts of Python Programming Language: Identifiers, Keywords, Statements and Expressions, Variables, Operators, Precedence and Associativity, Data Types, Indentation, Comments, Reading Input, Print Output, Type Conversions, the type () Function and Is Operator, Dynamic and Strongly Typed Language. Control Flow Statements: if statement, if-else statement, if...elif...else, Nested if statement, while Loop, for Loop, continue and break Statements, Catching Exceptions Using try and except Statement.

Sample Experiments:

- Write a program to find the largest element among three Numbers.
- Write a Program to display all prime numbers within an interval
- Write a program to swap two numbers without using a temporary variable.
- Demonstrate the following Operators in Python with suitable examples.
 - *Arithmetic Operators ii) Relational Operators iii) Assignment Operators iv) Logical Operators v) Bit wise Operators vi) Ternary Operator vii) Membership Operators viii) Identity Operators*
- Write a program to add and multiply complex numbers
- Write a program to print multiplication table of a given number.

UNIT-II

Functions: Built-In Functions, Commonly Used Modules, Function Definition and Calling the function, return Statement and void Function, Scope and Lifetime of Variables, Default Parameters, Keyword Arguments, *args and **kwargs, Command Line Arguments. **Strings:** Creating and Storing Strings, Basic String Operations, Accessing Characters in String by Index Number, String Slicing and Joining, String Methods, Formatting Strings. Lists: Creating Lists, Basic List Operations, Indexing and Slicing in Lists, Built-In Functions Used on Lists, List Methods, del Statement.

Sample Experiments:

- Write a program to define a function with multiple return values.
- Write a program to define a function using default arguments.
- Write a program to find the length of the string without using any library functions.
- Write a program to check if the substring is present in a given string or not.
- Write a program to perform the given operations on a list:
 - addition ii. insertion iii. slicing
- Write a program to perform any 5 built-in functions by taking any list.

UNIT-III

Dictionaries: Creating Dictionary, Accessing and Modifying key:value Pairs in Dictionaries, Built-In Functions Used on Dictionaries, Dictionary Methods, del Statement. **Tuples and Sets:** Creating Tuples, Basic Tuple Operations, tuple() Function, Indexing and Slicing in Tuples, Built-In Functions Used on Tuples, Relation between Tuples and Lists, Relation between Tuples and Dictionaries, using zip() Function, Sets, Set Methods, Frozenset.

Sample Experiments:

- Write a program to create tuples (name, age, address, college) for at least two members and concatenate the tuples and print the concatenated tuples.
- Write a program to count the number of vowels in a string (No control flow allowed).
- Write a program to check if a given key exists in a dictionary or not.
- Write a program to add a new key-value pair to an existing dictionary.
- Write a program to sum all the items in a given dictionary.

UNIT-IV:

Files: Types of Files, Creating and Reading Text Data, File Methods to Read and Write Data, Reading and Writing Binary Files, Pickle Module, Reading and Writing CSV Files, Python os and os.path Modules. **Object-Oriented Programming:** Classes and Objects, Creating Classes in Python, Creating Objects in Python, Constructor Method, Classes with Multiple Objects, Class Attributes Vs Data Attributes, Encapsulation, Inheritance, Polymorphism.

Sample Experiments:

- Write a program to sort words in a file and put them in another file. The output file should have only lower-case words, so any upper-case words from source must be lowered.
- Python program to print each line of a file in reverse order.
- Python program to compute the number of characters, words and lines in a file.
- Write a program to create, display, append, insert and reverse the order of the items in the array.
- Write a program to add, transpose and multiply two matrices.
- Write a Python program to create a class that represents a shape. Include methods to calculate its area and perimeter. Implement subclasses for different shapes like circle, triangle, and square.

UNIT-V

Introduction to Data Science: Functional Programming, JSON and XML in Python, NumPy with Python, Pandas.

Relevant Case study discussion in all units

References

1. Python with Machine Learning by Dr. A. Krishna Mohan et al. SChand publications.
2. Introduction to Programming Using Python, Y. Daniel Liang, Pearson.
3. Gowri shankar S, Veena A., Introduction to Python Programming, CRC Press.
4. Python Programming, S Sridhar, J Indumathi, V M Hariharan, 2nd Edition, Pearson, 2024

MBA (III Sem)		L	T	P	Cr
	24MB49 Block Chain Technology	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Blockchain technology, its architecture, consensus mechanisms, and cryptocurrency ecosystems.
CEO2	To understand public, private, and consortium blockchain platforms and evaluate their suitability for various business applications.
CEO3	To analyze smart contracts and blockchain-based solutions to address organizational and industry challenges.
CEO4	To evaluate Process of security, privacy, scalability, and regulatory issues associated with blockchain technologies and decentralized applications.
CEO5	To apply Blockchain platforms, programming tools, and frameworks to develop real-world applications across diverse industry sectors.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand the core concepts of blockchain technology, consensus mechanisms, decentralization, and cryptocurrencies.
CO2	Interpret the public blockchain platforms and develop smart contract solutions using Ethereum and related technologies.
CO3	Analyze private and consortium blockchain architectures, permissioned networks, Hyperledger frameworks, and ICO-based fundraising models.
CO4	Evaluate blockchain security, privacy, scalability, regulatory issues, and its applications across various industries.
CO5	Understand and apply the Python and Hyperledger Fabric to develop blockchain solutions and assess real-world blockchain implementation through case studies.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	2	1
CO2	1	3	1	2	2
CO3	3	3	1	2	2
CO4	2	3	1	3	1
CO5	1	3	1	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of AI concepts, Block chain technology and crypto currency

UNIT-I: Fundamentals of Blockchain: Introduction, Origin of Blockchain, Blockchain Solution, Components of Blockchain, Block in a Blockchain, The Technology and the Future. **Blockchain Types and Consensus Mechanism:** Introduction, Decentralization and Distribution, Types of Blockchain, Consensus Protocol. **Cryptocurrency:** Bitcoin, Altcoin and Token: Introduction, Bitcoin and the Cryptocurrency, Cryptocurrency Basics, Types of Cryptocurrencies, Cryptocurrency Usage.

UNIT-II: Public Blockchain System: Introduction, Public Blockchain, Popular Public Blockchains, The Bitcoin Blockchain, Ethereum Blockchain. Smart Contracts: Introduction, Smart Contract, Characteristics of a Smart Contract, Types of Smart Contracts, Types of Oracles, Smart Contracts in Ethereum, Smart Contracts in Industry.

UNIT-III: Private Blockchain System: Introduction, Key Characteristics of Private Blockchain, Private Blockchain, Private Blockchain Examples, Private Blockchain and Open Source, E-commerce Site Example, Various Commands (Instructions) in E-commerce Blockchain, Smart Contract in Private Environment, State Machine, Different Algorithms of Permissioned Blockchain, Byzantine Fault, Multichain. **Consortium Blockchain:** Introduction, Key Characteristics of Consortium Blockchain, Need of Consortium Blockchain, Hyperledger Platform, Overview of Ripple, Overview of Corda. Initial Coin Offering: Introduction, Blockchain Fundraising Methods, Launching an ICO, Investing in an ICO, Pros and Cons of Initial Coin Offering, Successful Initial Coin Offerings, Evolution of ICO, ICO Platforms.

UNIT-IV: Security in Blockchain: Introduction, Security Aspects in Bitcoin, Security and Privacy Challenges of Blockchain in General, Performance and Scalability, Identity Management and Authentication, Regulatory Compliance and Assurance, Safeguarding Blockchain Smart Contract (DApp), Security Aspects in Hyperledger Fabric. **Applications of Blockchain:** Introduction, Blockchain in Banking and Finance, Blockchain in Education, Blockchain in Energy, Blockchain in Healthcare, Blockchain in Real-estate, Blockchain in Supply Chain, The Blockchain and IoT. Limitations and Challenges of Blockchain.

UNIT-V

Blockchain Case Studies:

Case Study 1 – Retail,

Case Study 2 – Banking and Financial Services, Case Study 3 – Healthcare,

Case Study 4 – Energy and Utilities.

Blockchain Platform using Python: Introduction, Learn How to Use Python Online Editor, Basic Programming Using Python, Python Packages for Blockchain. Blockchain platform using Hyperledger Fabric: Introduction, Components of Hyperledger Fabric Network, Chain codes from Developer.ibm.com, Blockchain Application Using Fabric Java SDK.

Relevant Case study discussion in all units

Text book:

“Block chain Technology”, Chandramouli Subramanian, Asha A.George, Abhilasj K A and Meena Karthikeyan , Universities Press.

References:

1. Blockchain Blue print for Economy, Melanie Swan, SPD Oreilly.
2. Blockchain for Business, Jai Singh Arun, Jerry Cuomo, Nitin Gauar, Pearson Addition Wesley

MBA (III Sem)		L	T	P	Cr
	24MB50 Machine Learning	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Machine learning concepts, learning paradigms, and the machine learning life cycle.
CEO2	To apply Supervised learning techniques for classification and regression problems using distance-based and probabilistic models.
CEO3	To evaluate decision tree, ensemble, and Bayesian models for predictive analytics.
CEO4	To apply Linear discriminants, support vector machines, neural networks, and regression techniques to solve complex learning problems.
CEO5	To apply Clustering and unsupervised learning techniques to discover patterns and insights from large datasets

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand machine learning concepts, learning paradigms, data preparation techniques, and model development processes.
CO2	Apply nearest neighbor algorithms and similarity measures for classification and regression tasks.
CO3	Evaluate decision tree, random forest, and Bayesian models for predictive analytics.
CO4	Illustrate machine learning models using linear classifiers, support vector machines, regression techniques, and neural networks.
CO5	Chose and Implement clustering techniques to discover patterns and segment data for analytical applications.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	1	1	1
CO2	2	3	1	1	1
CO3	1	3	1	1	1
CO4		3	1	1	1
CO5	2	3	2	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of machine learning concepts, statistical tools and techniques.

UNIT-I: Introduction to Machine Learning: Evolution of Machine Learning, Paradigms for ML, Learning by Rote, Learning by Induction, Reinforcement Learning, Types of Data, Matching, Stages in Machine Learning, Data Acquisition, Feature Engineering, Data Representation, Model Selection, Model Learning, Model Evaluation, Model Prediction, Search and Learning, Data Sets.

UNIT-II: Nearest Neighbor-Based Models: Introduction to Proximity Measures, Distance Measures, Non-Metric Similarity Functions, Proximity Between Binary Patterns, Different Classification Algorithms Based on the Distance Measures, K-Nearest Neighbor Classifier, Radius Distance Nearest Neighbor Algorithm, KNN Regression, Performance of Classifiers, Performance of Regression Algorithms.

UNIT-III: Models Based on Decision Trees: Decision Trees for Classification, Impurity Measures, Properties, Regression Based on Decision Trees, Bias–Variance Trade-off, Random Forests for Classification and Regression. The Bayes Classifier: Introduction to the Bayes Classifier, Bayes’ Rule and Inference, The Bayes Classifier and its Optimality, Multi-Class Classification | Class Conditional Independence and Naive Bayes Classifier (NBC)

UNIT-IV: Linear Discriminants for Machine Learning: Introduction to Linear Discriminants, Linear Discriminants for Classification, Perceptron Classifier, Perceptron Learning Algorithm, Support Vector Machines, Linearly Non-Separable Case, Non-linear SVM, Kernel Trick, Logistic Regression, Linear Regression, Multi-Layer Perceptrons (MLPs), Backpropagation for Training an MLP.

UNIT-V: Clustering: Introduction to Clustering, Partitioning of Data, Matrix Factorization | Clustering of Patterns, Divisive Clustering, Agglomerative Clustering, Partitional Clustering, K-Means Clustering, Soft Partitioning, Soft Clustering, Fuzzy C-Means Clustering, Rough Clustering, Rough K-Means Clustering Algorithm, Expectation Maximization-Based Clustering, Spectral Clustering.

Relevant Case study discussion in all units

Text Books:

1. “Machine Learning Theory and Practice”, M N Murthy, V S Ananthanarayana, Universities Press (India), 2024

References:

1. “Machine Learning”, Tom M. Mitchell, McGraw-Hill Publication, 2017
2. “Machine Learning in Action”, Peter Harrington, DreamTech
3. “Introduction to Data Mining”, Pang-Ning Tan, Michel Stenbach, Vipin Kumar, 7th Edition, 2019.

MBA (III Sem)		L	T	P	Cr
	24MB57 Entrepreneur Project-III	-	-	2	1

Submission of Project proposal report to Government Bodies and applying the proposal to government agencies like (Start-ups / MSME/ NABARD/IDBI/SISI) and the same may be submitted to the college with the acknowledgement

Entrepreneur Project III– (Third Semester)

- I. Prepare a Project Proposal for submission.
- II. Applying for permissions or patents etc. for innovative or creative ideas.
- III. Submit the Project Proposal to the various Government bodies and Agencies. (PM VISHWAKARMA, START-UPS/MSME /NABARD/IDBI/SISI)
- IV. Submission the Acknowledgment to the University. Documentation & Seminar Submission

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop skills in identifying problems and preparing project proposals.
CEO2	To familiarize students with intellectual property rights and permission procedures.
CEO3	To provide knowledge of government schemes and funding agencies for project support.
CEO4	To provide knowledge of government schemes and funding agencies for project support.
CEO5	To enhance communication and presentation skills for project dissemination.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Prepare a project proposal based on an innovative business idea.
CO2	Apply for permissions, patents, or other registrations related to innovative ideas.
CO3	Prepare and submit project proposals to appropriate government agencies and funding organizations.
CO4	Prepare and submit project proposals to appropriate government agencies and funding organizations.
CO5	Present and defend the project proposal effectively through seminars and reports.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	1	2
CO2	2	2	2	3	1
CO3	3	3	2	3	2
CO4	2	2	1	2	2
CO5	2	2	3	2	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

IV SEMESTER

MBA (IV Sem)		L	T	P	Cr
	24MB15 Corporate Legal Framework	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the legal environment governing business organizations and commercial transactions in India.
CEO2	To apply provisions of contract law, sale of goods law, and negotiable instruments law in business decision-making.
CEO3	to analyze the legal framework relating to partnerships, limited liability partnerships, and corporate entities.
CEO4	To develop awareness of consumer protection, environmental laws, information technology laws, and other regulatory requirements affecting businesses.
CEO5	To acquire knowledge of company law provisions relating to incorporation, management, governance, and winding up of companies.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the fundamental principles of business laws and analyze the formation, performance, discharge, and breach of contracts under the Indian Contract Act, 1872.
CO2	Apply the provisions of the Sale of Goods Act, Negotiable Instruments Act, FEMA, and Environmental Protection Act to business transactions and commercial practices.
CO3	Examine the legal aspects of partnership firms and Limited Liability Partnerships, including formation, rights, duties, liabilities, and dissolution.
CO4	Analyze consumer rights, grievance redressal mechanisms, and the legal provisions relating to consumer protection, information technology, and essential commodities.
CO5	Evaluate the legal framework governing companies, including incorporation, management, share capital, meetings, directors' powers, and winding up under the Companies Act.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	1	-
CO2	3	3	2	2	1
CO3	3	2	2	2	-
CO4	2	3	2	2	1
CO5	3	3	2	2	-

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamental knowledge of Legal and business environment

UNIT- I

Significance of Business Laws—Indian Contract Act, 1872: Meaning and classification of contracts— Essentials elements of a valid contract— performance of a contract—Discharge of a contract—Void agreements- Breach and remedies of a contract.

UNIT-II

The Sale of Goods Act, 1930: Meaning and Essentials of contract of sale— Sale and Agreement to sell—Conditions and Warranties—Transfer of property Performance of a contract of sale—Unpaid seller- Negotiable instrument act 1881 – Foreign exchange management Act 1999 – Environment Protection Act 1986

UNIT-III

The Indian Partnership Act, 1932: Meaning and Essentials of partnership-- Registration of partnership—Kinds of partners—Rights and Liabilities of Partners—Relations of parties to third parties— Dissolution- Elements of Partnership - Types of Partner - Position of Minor as a -Partner - Types of Partnerships - Formation and Registration of Partnership - Relation of Partners to One another - Duties of Partners - Dissolution - Limited Liability Partnership Act, 2008

UNIT-IV

The Consumer Protection Act, 1986: Meaning of Consumer, Service, Goods, Deficiency, Defect, Unfair Trade Practices—Rights of Consumers—Machinery For redressal of Grievances—Remedies available to injured consumers – Information Technology Act, 2000 – Essential commodities Act, 1995

UNIT-V

The Companies Act, 1956: Nature and Registration—Kinds of Companies—Mode of Incorporation - Memorandum of Association—Article of Association—Kinds of Shares— Powers and duties of Directors—winding up- - Types of Companies in Company Law -Rules of Allotment -Transfer and Transmission of Shares -Statutory Meeting - Annual General Meeting - winding up
Transfer and Transmission of Shares

Relevant Case study discussion in all units

References:

1. N.D.Kapoor—Commercial Law—Sultan chand publishers, New Delhi.
2. S N Maheswaru & Suneed Maheswari—Commercial Laws—Mayoor Paper Backs— NOIDA
3. Satyanarayana – Corporate Company Law Discovery Publishing House, New Delhi
4. Tulisian P.C.—Business Laws—Tata Mc Graswhill Publishing house-New Delhi
5. Kucchal—Business Law—Vikas Publishing House, New Delhi.
6. Avatar Singh—Mercantile Law--EBC—New Delhi.

MBA (IV Sem)		L	T	P	Cr
	24MB16 Supply Chain Management	4	-	-	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To explain the concepts, evolution, key drivers, and strategic importance of Supply Chain Management in achieving organizational competitiveness.
CEO2	To analyze different types of supply chains, advanced planning systems, and supply chain network design to improve coordination and integration.
CEO3	To apply forecasting techniques, aggregate planning, inventory management models, and supply chain strategies to enhance supply chain responsiveness and efficiency.
CEO4	To evaluate logistics, distribution networks, sourcing, procurement processes, supplier performance, and vendor relationship management for effective supply chain operations.
CEO5	To assess the role of emerging technologies, sustainability practices, risk management, resilience, agility, and ethics in modern supply chain management.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand the fundamental concepts, evolution, strategic importance, key drivers, and competitive role of Supply Chain Management.
CO2	Explain supply chain planning, network design, advanced planning systems, and collaborative coordination for effective supply chain operations.
CO3	Develop the ability to apply demand forecasting and inventory management techniques to improve supply chain responsiveness and efficiency.
CO4	Demonstrate distribution, logistics, strategic sourcing, procurement, and vendor management practices for efficient supply chain performance.
CO5	Describe the role of digital technologies, sustainability, ethics, resilience, and risk management in modern supply chain management.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	-	2
CO2	2	2	1	3	2
CO3	3	2	1	-	2
CO4	2	2	1	2	2
CO5	3	2	1	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic knowledge of Production and operations Management

UNIT-I : Basics of Supply Chain Management: Meaning and definition of SCM - Evolution of SCM - Different views of Supply Chain – Supply Chain vs Logistics – importance of SCM in global competitiveness - Key drivers of SCM: Facilities, Inventory, Transportation, Information, Sourcing, Pricing – Developing Supply Chain Strategy- Strategic fit in Supply Chain.

UNIT-II : Supply Chain Analysis: Types of Supply Chains - Advanced Planning - Structure of Advanced Planning Systems-Strategic Network Planning - Demand Planning - Master Planning – Demand Fulfilment and ATP - Production Planning and Scheduling Purchasing and Material Requirements Planning Distribution and Transport Planning - Coordination and Integration – Collaborative Planning. - Designing the supply chain network

UNIT-III : Demand Forecasting and Inventory Management: Role of forecasting in SCM - Types of forecasting methods: Qualitative and Quantitative - Aggregate planning - Inventory management: EOQ, Safety Stock, ABC analysis - Bullwhip effect and its impact - Supply chain responsiveness and efficiency - Competitive and supply chain strategies

UNIT-IV : Distribution, Sourcing, Procurement and Vendor Management: Logistics management and third-party logistics (3PL) - Network design in distribution - - Last mile delivery challenges - Strategic sourcing and procurement processes - Supplier selection and evaluation - E- procurement and global sourcing - Vendor relationship management

UNIT-V: Supply Chain Technology and Sustainability: Role of IT in SCM: (ERP, Block Chain and IoT) - Green supply chains and sustainable practices, Supply chain risk management Resilient and agile supply chains - Ethics in SCM

Relevant Case study discussion in all units**References:**

1. Sunil Chopra & Peter Meindl – Supply Chain Management: Strategy, Planning and Operation Pearson Education, India
2. Mohanty R.P, S.G Deshmuki —Supply Chain Management|| Biztantra, New Delhi
3. Janat Shah – Supply Chain Management: Text and Cases (Pearson Education) (Indian context with good case studies)
4. David Simchi-Levi, Philip Kaminsky & Edith Simchi-Levi – Designing and Managing the Supply Chain (McGraw Hill) (Balanced between theory and practical tools)
5. Martin Christopher – Logistics and Supply Chain Management (Pearson) (Focus on logistics and agile supply chains)
6. Ailawadi & Singh – Logistics Management (Prentice Hall India) (Good Indian perspective on logistics operations)

	24MB61 Labour Welfare and Employment Laws	4	-	-	3
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Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, principles, evolution, and significance of labour welfare and welfare administration in India.
CEO2	To explain the objectives, principles, and provisions of major labour legislations governing industrial establishments.
CEO3	To develop an understanding of wage administration and social security legislations applicable to employees.
CEO4	To analyze industrial relations legislations, dispute resolution mechanisms, and legal provisions governing industrial relations.
CEO5	To evaluate standing orders, trade union legislation, and the New Labour Codes for ensuring legal compliance and effective employee relations.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, principles, objectives, and evolution of labour welfare and the role of welfare officers.
CO2	Apply the provisions of labour legislations, particularly the Factories Act, in ensuring employee health, safety, and welfare.
CO3	Analyze wage and social security legislations to ensure statutory compliance and employee welfare.
CO4	Examine industrial relations legislations and dispute resolution mechanisms to maintain harmonious employer–employee relations.
CO5	Enumerate the Standing Orders Act, Trade Unions Act, and New Labour Codes for effective labour law compliance and industrial governance.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	2	1
CO2	3	2	1	3	2
CO3	2	3	1	3	2
CO4	2	3	2	3	3
CO5	2	3	2	3	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic knowledge of Human Resource Management, Industrial Relations and Business Law
UNIT-I

Labour Welfare: Introduction to Labour Welfare: Concept, scope and philosophy, principles and approaches of labour welfare, Classification-Evolution of labour welfare in India- Impact of ILO on labour welfare in India. Welfare Officers 'Role, Status and Function, Signs of poor welfare.

UNIT-II

Labour Legislation: Objectives-Principles-Classification-Evaluation of Labour legislation in India- Factories Act 1948, Definitions - Objectives of Act - Factory Inspectorate – Measures to be taken by Factories for Health, Safety and Welfare of Workers - Working Hours - Provisions Relating to Hazardous Processes - Annual Leave with Wages - Special Provisions - Obligations by Employer and Employee - Offences and Penalties.

UNIT-III

Wage and Social Security Legislations: Payment of wages Act 1936 - Minimum wages Act 1948 - Payment of Bonus Act 1966 - Employees' State Insurance Act, 1948, Employees' Provident Funds and Miscellaneous Provisions Act, 1952, Payment of Gratuity Act, 1972, Workmen's Compensation Act 1923 - Maternity Benefit Act 1961.

UNIT-IV

Industrial Relations Legislation: Industrial Disputes Act 1947 Concept, objectives, Types of Strikes and their Legality – Authorities under the Act and their Duties – Voluntary Reference of Disputes to Arbitration – Types of Strikes and Lock-outs Wages for Strike and Lock-out Period– Change in Conditions of Service.

UNIT-V

Industrial Employment (standing orders) Act 1946: Certification of Draft Standing Orders – Appeals – Date of Operation of Standing Orders – Posting of Standing Orders – Payment of Subsistence Allowance. Trade Unions Act 1926. The New Labor Codes: Code on Wages 2019, industrial relations code 2020, code on social security 2020, occupational safety, health and working conditions code 2020.

Relevant Case study discussion in all units

References:

1. Govt. of India (Ministry of Labour, 1969). Report of the Commission on Labour Welfare, New Delhi: Author.
2. Govt. of India (Ministry of Labour, 1983). Report on Royal Commission on Labour in India, New Delhi: Author. Malik, P.L: —Industrial Law, Eastern Book Company. Laknow
3. Moorthy, M.V: —Principles of Labour Welfare, Oxford University Press, New Delhi.
4. Pant, S.C: —Indian Labour Problems, Chaitanya Pub. House. Allahabad.

MBA (IV Sem)		L	T	P	Cr
	24MB62 International Human Resource Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, scope, and strategic importance of International Human Resource Management (IHRM) in a global business environment.
CEO2	To explain global HR planning, international staffing, expatriate management, and international labour relations.
CEO3	To develop an understanding of cross-cultural management theories and diversity management for global organizations.
CEO4	To analyze global compensation and performance management practices in multinational organizations.
CEO5	To evaluate global HRD strategies, quality of work life, and organizational challenges for achieving sustainable competitive advantage.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, strategic role, and challenges of International Human Resource Management in a global business environment.
CO2	Understand international HR practices related to global staffing, expatriate management, training, performance appraisal, and labour relations.
CO3	Analyze cross-cultural issues, diversity management, and communication strategies for managing multicultural organizations.
CO4	Describe global compensation systems and performance management practices for international assignments.
CO5	Demonstrate strategic HRD initiatives to enhance global competitiveness, quality of work life, and organizational effectiveness.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	3	1
CO2	3	2	2	3	3
CO3	2	3	3	3	3
CO4	3	3	2	3	2
CO5	3	3	3	3	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Human Resource Management, Organizational Behaviour, and International Business.

UNIT I

Introduction: A Global HR Perspective in New Economy-Challenges of Globalization - Implications of Managing People and Leveraging Human Resource - Strategic Role of International HRM – Distinction between Domestic and International HRM – HR Challenges at International Level.

UNIT II

Managing International Assignments: Significance -Global HR Planning – Staffing policy – Training and development – performance appraisal –International Labour relations – Industrial democracy - Positioning Expatriate – Repatriate – factors of consideration - Strategies - Legal content of Global HRM- International assignments for Women - Problems.

UNIT III

Cross Culture Management: Importance – Concepts and issues – Understanding Diversity – Managing Diversity Cross- Cultural Theories – Hofstede’s Model – Kluckhohn - Strodtbeck Model – Andre-Laurent’ Theory – Cultural Issues. considerations - Problems – Skill building methods – Cross Culture Communication and Negotiation – Cross Culture Teams. Talent crunch – Indian MNCs and Challenges.

UNIT IV

Compensation Management: Objectives -Importance – Concepts- Trends - Issues – Methods – Factors of Consideration – Models – incentive methods – Approaches of Compensation in Global Assignments - global compensation implications on Indian systems - Performance Management.

UNIT V

Global Strategic Advantages through HRD: Measures for creating global HRD Climate – Strategic Frame Work of HRD and Challenges - Globalization and Quality of Working Life and Productivity – Challenges in Creation of New Jobs through Globalization- New Corporate Culture.

Relevant Case study discussion in all units

References:

1. Subba Rao P: —International Human Resource Management, Himalaya Publishing House, Hyderabad, 2011
2. Nilanjan Sen Gupta: —International Human Resource Management Text and cases, Excel Books, New Delhi.
3. Tony Edwards :—International Human Resource Management, Pearson Education, New Delhi, 2012
4. Aswathappa K, Sadhana Dash: —International Human Resource Management, TMH, New Delhi,
5. Monir H Tayeb: —International Human Resource Management, Oxford Universities Press, Hyderabad, 2012.

MBA (IV Sem)		L	T	P	Cr
	24MB63 Employee Relations and Workplace Culture	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, theories, and contemporary trends in Industrial Relations and their significance in organizations.
CEO2	To explain the role of trade unions and collective bargaining in promoting harmonious industrial relations.
CEO3	To develop knowledge of grievance handling mechanisms, discipline, and standing orders for effective employee relations.
CEO4	To analyze the causes, prevention, and settlement mechanisms of industrial disputes in India.
CEO5	To evaluate ethical practices, diversity, equity, inclusion (DEI), and HR's role in building an inclusive workplace culture.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, theories, and emerging trends in Industrial Relations and their impact on organizations.
CO2	Describe the principles of trade unions and collective bargaining to resolve employer–employee issues effectively.
CO3	Understand employee grievances, disciplinary procedures, and standing orders to maintain healthy industrial relations.
CO4	Analyze the causes, consequences, and settlement mechanisms of industrial disputes for promoting industrial harmony.
CO5	Apply HR strategies that promote ethical practices, diversity, equity, inclusion (DEI), and positive workplace culture.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	2	2	3
CO3	2	3	2	2	3
CO4	2	3	2	3	3
CO5	2	2	3	3	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Human Resource Management, Organizational Behaviour, and Industrial Relations.

UNIT-I

Industrial Relations Management: Concept-meaning and scope of IR-system frame work-Theoretical perspective- Evaluation –Background of industrial Relations in India- Influencing factors of IR in enterprise and the consequences. Globalization and IR- Recent Trends in Industrial Relations.

UNIT-II

Trade Unions: Introduction-Definition and objectives-growth of Trade Unions in India -Union Recognition-Union Problems-Employees Association- Collective Bargaining –Characteristics-Importance-Principles-The process of CB-Participation in the bargaining Process-Essential conditions for the success of collective bargaining –Negotiating techniques and skills.

UNIT-III

Employee Grievances: Causes of Grievances – Grievances Redressal Machinery – Discipline in Industry - Measures for dealing with Indiscipline–Standing Orders- Code of Discipline.

UNIT-IV

Industrial Disputes: Meaning, nature and scope of industrial disputes - Cases and Consequences of Industrial Disputes –Prevention and Settlement of industrial disputes in India.

UNIT-V:

Ethics, Diversity and Inclusion in Workplace Culture: Ethical issues in ER, Corporate culture and ethical leadership, Workplace diversity and inclusion, DEI strategies, Role of HR in ethical and inclusive culture building.

Relevant Case study discussion in all units

References:

1. C.S Venkataratnam: —Industrial Relations, Oxford University Press, New Delhi, 2011
2. Sinha: —Industrial Relations, Trade Unions and Labour Legislation, Pearson Education, New Delhi, 2013
3. Mamoria: —Dynamics of Industrial Relations, Himalaya Publishing House, New Delhi, 2010
4. B.D.Singh: —Industrial Relations, Excel Books, New Delhi, 2010
5. Arun Monappa: —Industrial Relations, TMH, New Delhi. 2012
6. Prof. N.Sambasiva Rao and Dr. Nirmal Kumar: —Human Resource Management and Industrial Relations, Himalaya Publishing House, Mumbai
7. Ratna Sen: —Industrial Relations, MacMillon Publishers, New Delhi, 2011.

MBA (IV Sem)		L	T	P	Cr
	24MB64 Human Capital Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts of Human Capital, labour economics, and the evolution of labour markets in the global economy.
CEO2	To explain Human Resource Accounting (HRA) concepts and cost-based valuation models for measuring human capital.
CEO3	To analyze value-based Human Resource Accounting models and recent developments in human capital valuation.
CEO4	To develop an understanding of Quality of Work Life (QWL), employee participation, engagement, and empowerment practices.
CEO5	To evaluate industrial safety, accident prevention, social security, and workplace counselling for sustainable human resource management.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts of human capital, labour economics, and the role of human capital in organizational and economic development.
CO2	Understand Human Resource Accounting concepts and cost-based valuation models to assess investments in human capital.
CO3	Describe value-based Human Resource Accounting models for evaluating the contribution of human assets to organizational performance.
CO4	Analyze quality of Work Life initiatives, employee participation, engagement, and empowerment strategies to improve organizational effectiveness.
CO5	Demonstrate strategies for industrial safety, social security, accident prevention, and workplace counselling to promote employee well-being and organizational sustainability.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	1	2	2
CO3	3	3	2	2	2
CO4	2	3	3	2	3
CO5	2	2	3	3	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Human Resource Management, Organizational Behaviour, and Labour Economics.

UNIT-I: Economic theories of Human Capital: Nature and Role of Human Capital; The Human Capital Model; Predictions of Human Capital Approach; Socio-economic relevance of labour problems in changing scenario; Evolution of organized labour; Industrialization and Development of Labour Economy; Growth of Labour Market in India in the globalized setting.

UNIT-II: Accounting Aspects of Human Capital – Cost Based Models: Meaning, Basic Premises, Need and Significance of HRA, Advantages and Limitation of HRA; Monetary and Non-Monetary Models; Cost Based Models- Acquisition Cost Method, Replacement Cost Model, Opportunity Cost Method, standard cost method, Current Purchasing Power Method (C.P.P.M.); Comparison of Cost incurred on Human capital and the contributions made by them in the light of productivity and other aspects.

UNIT-III : Accounting Aspects of Human Capital – Value Based Models: Value Based Models - Hermanson's Unpurchased Goodwill Method, Hermanson's Adjusted Discount Future Wages Model, Lev and Schwartz Present Value of Future Earnings Model, Flamholtz's Stochastic Rewards Valuation Model, Jaggi and Lau's Human Resource Valuation Model, Robinson's Human Asset Multiplier Method, Watson's Return on Effort Employed Method, Brummet, Flamholtz and Pyle's Economic Value Method of Group Valuation, Morse's Net Benefit Method; Recent developments in the field of Human Asset/Capital Accounting.

UNIT-IV: Quality of Work Life: Workers' Participation in Management - Worker's Participation in India, shop floor, Plant Level, Board Level- Quality Circles. Workers' education objectives -Rewarding. Employees Engagement and Empowerment-nature-types-drivers-benefits-measurement of Engagement-Empowerment.

UNIT-V: Industrial Accidents and safety: meaning and definition of accident-types of industrial accidents-cost and consequences-causes and prevention of accidents- Industrial safety –statutory machineries for industrial safety-safety audit. Social Security: Introduction and types –Social Security in India, Health and Occupational safety programs- work place discipline –work place counselling-meaning –definition –types-advantages-characteristics of an effective counsellor.

Relevant Case study discussion in all units

References:

1. I.L.O., Social & Labour aspects of Economic Development, Geneva Report of the National Commission on Labour
2. Patterson & Schol., Economic Problems of Modern Life. Mc-Graw Hill Book Company.
3. Walter Hageabuch, Social Economics, Cambridge University Press.S. Howard Patterson, Social Aspects of Industry.
4. Millis and Montgonery, Labours Progress and some Basic Labour Problems. Mc -Graw Hill Book Company.
5. Flamholtz, Eric, Human Resource Accounting, Dickenson Publishing Co., Calif.
6. Hermanson, Roger H. Accounting for Human Assets, Occasional Paper No.14, Graduate School of Business Administration, Michigan State University. Flamholtz, Eric G., Human Resource Accounting: Advances in Concepts, Methods and Applications, Jossey Eass Publishers, San Francisco, London.
7. Likert, Rensis, The Human Organisation: Its Management and Value, McGraw Hill Book Co., New York, N.Y.
8. Ganguli, Prabuddha, Intellectual Property Rights: Unleashing the Knowledge Economy, Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
9. Chakraborty, S.K., Human Asset Accounting: The Indian Context in Topics in Accounting and Finance, Oxford University Press.

MBA (IV Sem)		L	T	P	Cr
	24MB65	4	-	-	3
	Corporate Strategic Finance				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide advanced knowledge of corporate finance concepts and shareholder value creation.
CEO2	To develop understanding of corporate financing decisions, capital structure, and dividend policies.
CEO3	To equip skills in evaluating investment decisions under risk and uncertainty.
CEO4	To familiarize with corporate restructuring strategies including mergers, acquisitions, and valuation.
CEO5	To impart knowledge of takeover strategies, corporate restructuring, and regulatory frameworks governing corporate control.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Analyze shareholder value creation measures and their implications for corporate financial decision-making.
CO2	Evaluate various sources of corporate financing and their impact on capital structure and firm value.
CO3	Apply investment appraisal techniques for capital budgeting decisions under risk and uncertainty.
CO4	Assess merger strategies, valuation methods, and the financial implications of corporate mergers.
CO5	Examine takeover strategies, restructuring alternatives, and regulatory provisions governing corporate takeovers.

Co-Po Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	-
CO2	3	3	-	3	-
CO3	3	3	-	2	1
CO4	3	3	1	3	2
CO5	3	2	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Financial Management, Financial Accounting, and Capital Markets.

UNIT-1

Introduction of corporate finance – Shareholder Value Creation (SCV): Market Value Added (MVA) – Market-to-Book Value (M/BV) – Economic Value Added (EVA) – Managerial Implications of Shareholder Value Creation.

UNIT-II

Sources of corporate funding: Governing Regulatory Framework for share capital Debt securities – Capital Structure Planning and Policy – Financial Options and Value of the Firm – Dividend Policy and Value of the Firm.

UNIT-III

Corporate Investment Strategy – Techniques of Investment Appraisal Under Risk and Uncertainty – Risk Adjusted Net Present Value – Risk Adjusted Internal Rate of Return – Capital Rationing – Decision Tree Approach for Investment Decisions – Evaluation of Lease Vs Borrowing Decision.

UNIT-IV

Corporate Merger Strategy – Theories of Mergers – Horizontal and Conglomerate Mergers – Merger Procedure – Valuation of Firm – Financial Impact of Merger – Merge and Dilution Effect on Earnings Per Share – Merger and Dilution Effect on Business Control.

UNIT-V

Corporate Takeover Strategy – Types of Takeovers – Negotiated and Hostile Bids – Takeover Procedure – Takeover Defenses – Takeover Regulations of SEBI – Distress Restructuring Strategy – Sell offs – Spin Offs – Leveraged Buyouts.

Relevant Case study discussion in all units

References:

1. Van Horn, JC, Financial Management and Policy, Prentice Hall, New Delhi
2. PG Godbole, Mergers, Acquisitions and Corporate Restructuring, Vikas, New Delhi
3. Weaver, Strategic Corporate Finance, Cengage, ND
4. Weston JF, Chung KS & Heag SE., Mergers, Restructuring & Corporate Control, Prentice Hall.
5. Satyanarayana, Strategic Financial Management Discovery Publishing House, New Delhi
6. GP Jakarthiya, Strategic Financial Management, Vikas, New Delhi
7. Coopers & Lybrand, Strategic Financial: Risk Management, Universities Press (India) Ltd.
8. Robichek, A, and Myers, S., Optimal Financing Decisions, Prentice Hall Inc.
9. Bhalla, V.K., Managing International Investment and Finance, New Delhi, Anmol, 1997.

MBA (IV Sem)		L	T	P	Cr
	24MB66	4	-	-	3
	Risk Management				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a comprehensive understanding of the concepts, types, sources, and measurement of risks in organizations.
CEO2	To develop knowledge of risk management processes, tools, techniques, and reporting mechanisms for effective decision-making.
CEO3	To equip with the ability to measure and evaluate risks at corporate and investment levels using modern risk assessment techniques.
CEO4	To familiarize with regulatory frameworks governing risk management in banking, financial institutions, and insurance sectors.
CEO5	To apply risk management principles and strategies for managing financial, operational, and insurance-related risks.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concept, nature, sources, types, and significance of risk and risk management in organizations.
CO2	Analyze risk identification, measurement, reporting processes, and risk-adjusted performance evaluation techniques.
CO3	Evaluate corporate risks and apply appropriate risk management tools for managing financial, operational, and market risks.
CO4	Assess Value at Risk (VaR), economic capital, and other quantitative methods used in risk measurement and investment decisions.
CO5	Examine banking and insurance regulatory frameworks, risk management standards, and the role of insurance in risk mitigation.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	1
CO2	3	2	1	2	2
CO3	3	3	2	3	2
CO4	2	3	1	2	2
CO5	2	3	2	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Financial Management, Banking, Insurance, and Business Statistics.

UNIT-I

Introduction to Risk Management: The concept of Risk- Nature- Need and scope of risk. Source-measurement- identification and evaluation of Risk. Types of risk–Credit, Market, operational risk, Possible Risk events- Risk Indicators.. Risk management approaches and methods. Risk reporting process–internal and external

UNIT-II

Measurement of Risks: Risk measurement at corporate level: Economic capital and RAROC.- Introduction-Meaning of Economic Capital-Probability Of Default-Using Risk Adjusted Performance for Business Decisions- Measuring Credit Risk-Measuring Market Risk and measuring operational risk Value at risk (VaR):

UNIT-III

Management of Risks: Risk Management Tools- Interest Rate Risk Management- Market Risk Management- Credit Risk Management- Operational Risk Management- Foreign Exchange and Sovereign Risk Management- Liquidity Risk Management- Management of Capital Adequacy-Risk Reporting

UNIT-IV

Banking Regulatory and Other Issues in Risk Management: Regulatory Frame Work- Revised RBI Risk Management Norms to Banks- Organizational Structure for Market and Credit Risk-SEBI, NHB-Bank for International Settlement- BASEL Committee on Banking Supervision-BASEL Settlement I,II & III- Calculation of Minimum Capital Requirements.

UNIT-V

Insurance Regulatory and Other Issues in Risk Management: General Concepts of Insurance – Insurance and hedging – Types of insurance – Insurance intermediaries -Basic features of life insurance contracts - Life insurance products- Fundamental principles of general insurance – Fire insurance – Marine insurance – Motor insurance – Personal accident insurance – Liability insurance –Miscellaneous insurance – Claims settlement.

Relevant Case study discussion in all units

References

1. Dr. G. Kotreshwar: “Risk Management”, Himalaya Publishing House, Delhi. 2012
2. Trieschmann, Hoyt, Sommer: “Risk Management and Insurance”, Cengage Learning. 2005,
3. Dhanesh Kumar Khatri: “Derivatives and Risk Management”, Mac Millan, 2012
4. Vivek, P.N. Asthana: “Financial Risk Management”, Himalaya Publishing House, Delhi. 2012
5. Rene M. Stulz. “Risk Management & Derivatives” Cengage Learning. 2003.
6. Rene. M. Stulz, Risk Management & Derivatives, Thomson Southwestern
7. John C. Hull Sankarshan Basu, Options, Futures and Other Derivatives, Pearson Education
8. Gupta, P. K, Insurance and Risk Management, Himalaya Publishing House
9. RBI Bulletin
10. IRDA regulations
11. SEBI reports

MBA (IV Sem)		L	T	P	Cr
	24MB67	4	-	-	3
	Global Financial Management				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the role of international trade, investment, financial markets, and institutions in multinational business.
CEO2	To develop knowledge of foreign exchange markets, exchange rate movements, and risk management techniques.
CEO3	To understand the significance of balance of trade and balance of payments in international finance.
CEO4	To familiarize students with derivative instruments and their applications in managing foreign exchange exposure.
CEO5	To develop skills in evaluating international investment decisions, financing, and accounting practices.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe the international monetary system and global financial institutions.
CO2	Explain foreign exchange risks and derivative instruments used in risk management.
CO3	Apply international financial market concepts and instruments in financial decision-making.
CO4	Apply multinational capital budgeting and foreign investment decision techniques.
CO5	Explain international accounting, reporting, and performance measurement practices.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	1	-	2	-
CO2	2	2	-	2	-
CO3	2	3	-	2	1
CO4	2	3	1	2	1
CO5	2	2	-	2	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Financial Management, International Business, Financial Markets, and Economics.

UNIT-I

International Monetary and Financial System: Evolution; Breton Woods Conference and Other Exchange Rate Regimes; European Monetary System, South East Asia Crisis and Current Trends.

UNIT-II

Foreign Exchange Risk: Transaction Exposure; Accounting Exposure and Operating Exposure – Management of Exposures – Internal Techniques, Management of Risk in Foreign Exchange Markets: Forex Derivatives – Swaps, futures and Options and Forward Contracts.

UNIT-III

Features of Different International Markets: Euro Loans, CPs, Floating Rate Instruments, Loan Syndication, Euro Deposits, International Bonds, Euro Bonds and Process of Issue of GDRs and ADRs.

UNIT-IV

Foreign Investment Decisions: Corporate Strategy and Foreign Direct Investment; Multinational Capital Budgeting; International Acquisition and Valuation, Adjusting for Risk in Foreign Investment.

UNIT-V:

International Accounting and Reporting; Foreign Currency Transactions, Multinational Transfer Pricing and Performance Measurement; Consolidated Financial Reporting.

Relevant Case study discussion in all units

References

1. Buckley Adrin, Multinational Finance, 3rd Edition, Engle Wood Cliffs, Prentice Hall of India.
2. S.P.Srinivasan, B.Janakiram, International Financial Management, Wiley India, New Delhi.
3. Clark, International Financial Management, Cengage, ND
4. Sharan, International Financial Management, 3rd Edition, Prentice Hall of India.
5. A.K.Seth, International Financial Management, Galgothia Publishing Company.
6. Satyanarayana, Global Financial Management, Discovery Publishing House, New Delhi
7. P.G.Apte, International Financial Management, Tata McGraw Hill, 3rd Edition.
8. Bhalla, V.K., International Financial Management, 2nd Edition, New Delhi, Anmol, 2001.
9. V.A.Avadhani, International Financial Management, Himalaya Publishing House.

MBA (IV Sem)		L	T	P	Cr
	24MB68	4	-	-	3
	Financial Derivatives				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide knowledge of financial derivatives, derivative markets, and their role in risk management.
CEO2	To develop an understanding of forward, futures, options, and swap contracts and their pricing mechanisms.
CEO3	To familiarize with trading practices, hedging strategies, and regulatory aspects of derivative markets.
CEO4	To equip with analytical skills for evaluating derivative instruments and managing financial risks.
CEO5	To apply derivative instruments in investment and risk management decisions.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe financial derivatives, derivative markets, and the regulatory framework.
CO2	Explain forward contracts and their valuation.
CO3	Apply futures pricing and hedging strategies.
CO4	Analyze option contracts and option pricing models.
CO5	Explain swap contracts and their applications.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	1	-	1	-
CO2	2	2	-	1	-
CO3	2	3	-	1	1
CO4	2	3	1	2	1
CO5	2	2	-	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Financial Management, Investment Management, Financial Markets, and Business Statistics.

UNIT-I: Introduction to Financial Derivatives – Meaning and Need – Growth of Financial Derivatives in India – Derivative Markets – Participants- Functions – Types of Derivatives – Forwards – Futures – Options-Swaps – The Regulatory Framework of Derivatives Trading in India.

UNIT-II: Forward Market: Concept- features of forward contract – classification of forward contracts- forward trading mechanism – determination of forward prices – valuing forward contracts – forward prices vs futures prices- payoff from the forward contracts – foreign currency forwards – pricing currency forward contracts.

UNIT-III: Futures Market: Features of Futures –Differences Between Forwards and Futures – Financial Futures – Trading – Currency Futures – Interest Rate Futures – Pricing of Future Contracts- Value at Risk (VaR)-Hedging Strategies – Hedging with Stock Index Futures – Types of Members and Margining System in India – Futures Trading on BSE & NSE.

UNIT-IV: Options Market: – Meaning & Need – Options Vs Futures -Types of Options Contracts – Call Options – Put Options Factors Affecting Options pricing- Put-Call Parity Pricing Relationship - Pricing Models - Introduction to Binominal Option Pricing Model – Black Scholes Option Pricing Model.

UNIT-V: Swaps Markets: – Meaning – Overview – The Structure of Swaps – Interest Rate Swaps – Currency Swaps – Commodity Swaps – Swap Variant – Swap Dealer Role –Equity Swaps – Economic Functions of Swap Transactions - FRAs and Swaps.

Relevant Case study discussion in all units

References

1. Hull C. John, —Options, Futures and Other Derivatives, Pearson Education Publishers,
2. David Thomas. W & Dubofsky Miller. Jr., Derivatives valuation and Risk Management, Oxford University, Indian Edition.
3. ND Vohra & BR Baghi, Futures and Options, Tata McGraw-Hill Publishing Company Ltd.
4. Red Head: Financial Derivatives: An Introduction to Futures, Forward, Options, Prentice Hall of India.
5. David A. Dubofsky, Thomas W. Miller, Jr.: Derivatives: Valuation and Risk Management, Oxford University Press.
6. Sunil K. Parameswaran, —Futures Markets: Theory and Practice, Tata-McGraw-Hill Publishing Company Ltd.
7. D.C. Patwari, Financial Futures and Options, Jaico Publishing House.
8. T.V. Somanathan, Derivatives, Tata McGraw-Hill Publishing Company Ltd.
9. NSE Manual of Indian Futures & Options & www. Sebi.com
10. S.C. Gupta, Financial Derivatives: Theory, Concepts and Problems, Prentice Hall of India.

MBA (IV Sem)		L	T	P	Cr
	24MB69	4	-	-	3
	Green Marketing				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Provide knowledge of green marketing concepts, green products, and green consumer behavior.
CEO2	To Develop understanding of sustainable business practices and environmental responsibility in marketing.
CEO3	To Enhance analytical ability to evaluate consumer purchase decisions and environmental issues.
CEO4	To Build awareness of ethical, legal, and environmental aspects influencing green marketing practices.
CEO5	To Develop the ability to evaluate green marketing initiatives and sustainable business strategies adopted by organizations.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts of green marketing, green products, green consumer behavior, and green business opportunities.
CO2	Describe various green marketing concepts such as green selling, green harvesting, compliance marketing, green washing, and climate performance initiatives.
CO3	Analyze the factors influencing consumer purchase decisions and buyer decision-making models.
CO4	Examine environmental consciousness, e-waste management practices, and environmental protection guidelines.
CO5	Analyze green marketing initiatives and sustainable business practices adopted by leading organizations.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	1	-	2	-
CO2	2	1	1	3	-
CO3	2	3	-	1	1
CO4	1	2	2	3	-
CO5	3	2	3	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Marketing Management, Consumer Behaviour, and Environmental Studies.

UNIT-I

Green Marketing and Green Product: Introduction to green marketing-strategic green planning-environment and consumption- Green Product- Green Behavior- Five shades of green consumers Segmenting consumers- Green consumer's motives-Buying strategies -Green Business Opportunities- Designing green products-eco-design to eco- innovation-Fundamentals of green marketing-Establishing Credibility-Green distribution and Packaging Contemporary Government policies and subsidies that aids green product development

UNIT-II

Green Marketing Concepts: Green Spinning – Green Selling – Green Harvesting – Enviropreneur Marketing - Compliance Marketing – Green Washing – Climate Performance Leadership Index

UNIT-III

Purchase Decision: Meaning of Purchase decision – Factors affecting Purchase decision – Steps in the decision-making process - Five stages of consumer buying decision process - Models of buyer decision-making

UNIT-IV

Environmental consciousness: Introduction of Environment - Importance of environmentalism - Environmental movement - Benefits of green environment to the society - E-waste exchange - Extended Producer Responsibility Plan - Guidelines for Collection and Storage of E-Waste - Guidelines for Transportation of E-Waste - Guidelines for Environmentally Sound Recycling of E-Waste

UNIT-V

Green Marketing Initiatives: Green Firms – HCL's Green Management Policy – IBM's Green Solutions – IndusInd Bank's Solar Powered ATMs – ITC's Paperkraft – Maruti's Green Supply Chain – ONCGs Mokshada Green Crematorium – Reva's Electric Car – Samsung's Eco-friendly handsets- Wipro Infotech's Eco-friendly computer peripherals.

Relevant Case study discussion in all units

References

1. Green Marketing and Environmental Responsibility in Modern Corporations, Esakki and Thangasamy, IGI Global, 2017
2. Green Marketing Management, Robert Dahlstrom, Cengage Learning, 2010.

Essential Reading / Recommended Reading

1. Green Marketing: Challenges and Opportunities for the New Marketing Age, Jacquelyn A. Ottman, NTC Business Books, 1993
2. The New Rules of Green Marketing, Jacquelyn A. Ottman, Berrett-Koehler Publishers, 2011.

MBA (IV Sem)		L	T	P	Cr
	24MB70	4	-	-	3
	Marketing Research				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the fundamentals of marketing research and ethics.
CEO2	To design marketing research studies using appropriate methods.
CEO3	To analyze and interpret marketing research data.
CEO4	To apply analytical tools to marketing research problems.
CEO5	To present research findings effectively through professional reports.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, scope, process, and ethical issues of marketing research for business decision-making.
CO2	Design a marketing research study by selecting appropriate research design, sampling, and data collection methods.
CO3	Analyze marketing research data using measurement scales and statistical techniques to interpret research findings.
CO4	Apply analytical tools and marketing research techniques to solve marketing problems and support managerial decisions.
CO5	Prepare and present a structured marketing research report using appropriate data visualization and presentation techniques.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	3	1
CO2	3	3	2	2	2
CO3	2	3	1	2	1
CO4	3	3	2	2	2
CO5	2	2	2	2	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Marketing Management, Business Statistics, and Research Methodology.

UNIT-I

Introduction to Marketing Research: Definition and Scope of Marketing Research, Importance of marketing research in, Business Decision-Making, Marketing Research vs. Market Research, Ethical Issues in Marketing Research

UNIT-II

Research Design and data collection methods: Steps in the Marketing research Process, Types of Research: Exploratory, Descriptive, and Causal, Primary vs. Secondary Data, Qualitative Research Methods (Focus Groups, In-depth Interviews, Ethnography), Quantitative Research Methods (Surveys, Experiments, Observations) application and sample size determination.

UNIT-III

Measurement Analysis and interpretation: Types of Scales (Nominal, Ordinal, Interval, Ratio), Reliability and Validity in Measurement, Descriptive and Inferential Statistics, Factor and Cluster Analysis

UNIT-IV

Marketing Research Tools and application: SPSS, Excel, and Other Analytical Tools, Data Visualization and Dashboarding, AI and Big Data in Marketing Research, Applications of Marketing Research - Consumer Behavior Analysis, Brand Research, Advertising Research, Market Segmentation and Positioning Studies, Product and Pricing Research

UNIT-V

Reporting and Presentation of Research Findings: Structuring a Research Report, Effective Data Presentation Techniques, Storytelling with Data

Relevant Case study discussion in all units

References

1. "Marketing Research: An Applied Orientation" – Naresh K. Malhotra - Prentice Hall, 7th Edition
2. "Essentials of Marketing Research" – William G. Zikmund, Barry J. Babin, Cengage Learning, 6th Edition
3. "Marketing Research" – G.C. Beri - McGraw-Hill Education, 5th Edition, 2013
4. "Marketing Research: Text and Cases" – Rajendra Nargundkar - McGraw-Hill Education, 4th Edition, 2015
5. "Marketing Research" – Naresh Malhotra & Satyabhushan Dash - Pearson Education, 7th Edition (Revised), 2019
6. "Marketing Research" – R. Panneerselvam - PHI Learning, 1st Edition, 2004

MBA (IV Sem)		L	T	P	Cr
	24MB71 Services Marketing	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To equip with fundamental knowledge of services marketing concepts and practices.
CEO2	To develop the ability to analyse customer needs, service quality, and market opportunities in service industries.
CEO3	To design appropriate service marketing strategies related to segmentation, pricing, promotion, and service delivery.
CEO4	To foster ethical, customer-oriented, and value-based decision-making in service organizations.
CEO5	To apply service marketing principles effectively across various service sectors and work collaboratively in organizations.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, characteristics, classification, and marketing environment of services.
CO2	Apply segmentation, targeting, positioning, pricing, and promotional strategies in service marketing.
CO3	Analyze service quality, customer expectations, service failures, and relationship marketing practices.
CO4	Demonstrate understanding of service delivery processes, physical evidence, and people management in service organizations.
CO5	Evaluate marketing practices in major service sectors such as financial, healthcare, hospitality, educational, and public utility services.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	1	2	2
CO3	2	3	2	2	2
CO4	2	2	3	1	3
CO5	3	2	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic understanding of marketing principles and management concepts

UNIT-I

Introduction to Services Marketing: Understanding Services, Differences in Goods versus Services, Emerging Service Environment, Classification of Services. Service Market Segmentation, Targeting & Positioning: Process of market segmentation, customer loyalty Segmentation, Targeting and Positioning service value addition to the service product, planning and branding service products, new service development.

UNIT-II

Pricing strategies for services: Service pricing, establishing monetary pricing objectives foundations of pricing objectives, pricing and demand, putting service pricing strategies into practice. Service promotion: The role of marketing communication. Implication for communication strategies, setting communication objectives, marketing communication mix.

UNIT-III

Implementing Services Marketing: Improving Service Quality and Productivity, SERVQUAL, Service Failures and Recovery Strategies. Customer Relationship Marketing: Relationship Marketing, the nature of service consumption understanding customer needs and expectations, Strategic responses to the intangibility of service performances.

UNIT-IV

Managing Service Delivery Process: Managing Physical Evidence of Services, Designing and Managing Service Processes, Managing People for Service Advantage.

UNIT-V

Marketing of Services in Sectors: Financial Services, Health Service, Hospitality Services including travel, hotels and tourism, Professional Service, Public Utility Services, Educational Services.

Relevant Case study discussion in all units

References

1. Valarie A. Zeithaml & Mary Jo Bitner - Services Marketing: Integrating Customer Focus Across The Firm, Third Edition, 2004; Tata McGraw-Hill Publishing Company Ltd, 2008.
2. Christopher H. Lovelock, Jochen Wirtz, Jayanta Chatterjee, Services Marketing: People, Technology, Strategy (A South Asian Perspective) Fifth Edition 2011; Pearson Education
3. Cengiz Haksever, Barry Render, Roberta S. Russel, and Robert G. Murdic: Service Management and Operations (Second Edition); Pearson Education (Singapore) Pte., Ltd., 2003.
4. Kenneth E. Clow & David L. Kurtz: Services Marketing, Biztantra Publication, 2003.
5. Nimit Chowdhary & Monika Chowdhary, Textbook of Marketing of Services The Indian Experience, Macmillan India Ltd., 2005

MBA (IV Sem)		L	T	P	Cr
	24MB72 Sales and Distribution Management	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To Provide with a strong foundation in sales and distribution management concepts, principles, and practices.
CEO2	To develop the ability to plan, organize, and manage sales operations and sales force activities effectively.
CEO3	To enhance analytical skills for market potential assessment, sales forecasting, quota setting, and performance evaluation.
CEO4	To equip with knowledge of marketing channels, wholesaling, retailing, and channel relationship management.
CEO5	To foster ethical leadership, communication, and decision-making skills in sales and distribution environments.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, functions, and organizational aspects of sales management and sales force administration.
CO2	Apply personal selling theories, sales planning processes, and budgeting techniques to sales management situations.
CO3	Analyze market potential, sales forecasts, quotas, compensation plans, and sales force performance.
CO4	Evaluate marketing channel structures, channel integration systems, and channel relationship management strategies.
CO5	Examine wholesaling, retailing, channel information systems, and ethical issues in sales and distribution management.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	2	2	1	3
CO3	2	3	1	1	2
CO4	3	2	2	2	2
CO5	2	2	2	3	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basic understanding of marketing principles and business communication

UNIT-I: Introduction to Sales Management: Meaning of sales - Evolution of Sales Concept – Nature and Role of Selling – Objectives of Sales Management - Integrating Sales and Marketing Management -Environmental Changes Affecting Sales Management – The Sales Organization – Role of a Sales Organization – Basis for Designing a sales Organization –Types of Sales Force Structure -Sales Culture – Sales Functions & Policies – Role of a sales manager – responsibilities of sales manager

UNIT-II: Personal selling: Buyer Seller Dyads – Types of Selling Jobs - Sales Force Objectives and strategies – Theories of Personal Selling – Personal Selling Process - The sales planning process and its importance -Types of Budgets - Methods of Budgeting for Sales Force

UNIT-III: Assessing Market Potential: Importance of Assessing Market Potential - Analyzing Market Potential – Sales Forecasting Methods – Selecting a Forecasting Methods – definition of sales quota – types of sales quotas – methods of setting sales quotas – sales analysis and audit – compensating sales force – types of compensation plans – designing compensation plans - Determinants of sales force performance - Methods of sales force evaluation

UNIT-IV: Marketing Channels, integration and management: Channel members and their functions - Designing marketing channels - Channel flows and costs –Importance of channel integration – Vertical marketing systems – Types of vertical marketing systems – Horizontal marketing systems - Hybrid channel systems – criteria for selecting channel members – evaluation of channel members – modifying channel arrangements – managing channel relationships - Managing Channel Conflicts

UNIT-V: Wholesaling & Retailing: Wholesaling and its importance – Types of wholesalers – Strategic issues in wholesaling - Trends shaping wholesale distribution - Challenges in wholesaling - Wholesaling in India –Retailing and its Importance – Evolution of retailing – Classification of retailers - Strategic issues in retailing - Trends in retailing – channel Information system - Ethical and Social Issues in Sales and Distribution Management

Relevant Case study discussion in all units

References

1. Sales and distribution management – Richard R. still, Edward W. Cundiff, Norman A.P Govoni and Sandeep Puri – Pearson publications.
2. Sales and distribution management – Krishna K Havaladar and Vasant Calvale – Mc Graw hill – 3rd edition
3. Sales and distribution management – Tapan K. Panda, Sunil Sahadev – Oxford Higher Education
4. Sales and distribution management – K. Shridhara Bhat – Himalaya Publishing House

MBA (IV Sem)		L	T	P	Cr
	24MB73 Business Intelligence and Data Visualization	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Basics of Business Intelligence concepts, architectures, tools, and their role in organizational decision-making.
CEO2	To understand Database design principles, data modeling techniques, and normalization concepts for efficient data management.
CEO3	To develop Applications of Query, and manage relational databases using SQL and PL/SQL for business analytics
CEO4	To apply Power BI tools to perform data transformation, analysis, visualization, and dashboard development for business insights.
CEO5	To create interactive visualizations and analytical dashboards using Tableau to support data-driven decision-making.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe Business Intelligence concepts, architecture, tools, and their role in organizational decision-making.
CO2	Illustrate the efficient database structures using ER modeling, relational databases, and normalization techniques.
CO3	Develop and execute SQL and PL/SQL programs for database management and business applications.
CO4	Apply Power BI tools for data transformation, visualization, and interactive dashboard development.
CO5	Create Tableau-based visualizations, dashboards, and analytical reports for effective business intelligence and decision support.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	3	3	2	2
CO2	1	3	2	1	2
CO3	-	3	1	1	1
CO4	3	3	1	2	2
CO5	2	3	1	1	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of AI and DBMS concepts

UNIT-I: Business Intelligence – Introduction, Framework of Business Intelligence- Definition, History, Architecture of BI, benefits of BI, Intelligence creation and use of BI governance, Transaction processing versus analytic processing, BI implementation – Developing or acquiring BI, Justification and Cost-benefit analysis, Security and protection of privacy, Integration of systems and applications, BI tools and techniques, Major vendors.

UNIT-II: Introduction Database system concept and architecture, data model schema and instances, data independence and database language and interfaces, DDL, DML, Overall Database Structure. ER model concepts, notation for ER diagram, mapping constraints Relational data Model and Language: keys, Concepts of Super Key, candidate key, primary key, Relational data model concepts, integrity constraints, entity integrity, referential integrity, Keys constraints, Domain constraints,. Normalization

UNIT-III: Introduction on SQL: Characteristics of SQL, advantage of SQL. SQL data type and literals. Types of SQL commands. SQL operators and their procedure. Tables, views and indexes. Queries and sub queries. Aggregate functions. Insert, update and delete operations, Joins, Unions, Intersection, Minus, Cursors, Triggers, and Procedures in SQL/PL SQL

UNIT-IV: Introduction to Power BI – Working with data – Importing from flat files, excel files, other sources – PowerPivot data types – Column operations - Table relationship – PowerPivot data analysis – PivotTable and PivotChart – Slicers – Dashboard Implementation – Dates, hierarchies, and perspectives – Data Analysis Expressions – Introduction to Power Query – Introduction to Power View – Power View visualizations – Power View filtering options – Introduction to Power Map – Preparing geospatial data – Publish from Power BI desktop – Publish Dashboard to Web

UNIT-V Introduction to Tableau – Installation – Tableau Interface – Data Importing (live vs extract) – Continuous and discrete data – Different kinds of plots and their usage (bar chart, line chart, scatter plot, histogram, dual axis) – Parameters – Functions and calculated field – Row and aggregate calculations – Time series analysis – Bin & group – Forecast & clusters – Joins and blends – Dashboard and interactive plots – Data interpretation – Connecting to real time database.

Relevant Case study discussion in all units

References

1. Rick Sherman (2014); Business Intelligence Guidebook: From Data Integration to Analytics, Morgan Kaufmann
2. Kristen Sosulski (2018); Data Visualization Made Simple, Routledge
3. Molly Monsey and Paul Sochan , (2015); Tableau For Dummies, For Dummies
4. Ken Withee (2010); Power BI for Dummies, John Wiley & Sons
5. Kieran Healy (2018); Data Visualization: A Practical Introduction, Princeton University Press

MBA (IV Sem)		L	T	P	Cr
	24MB74 Artificial Intelligence in Business	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand artificial intelligence concepts, technologies, and their transformative impact on business and society.
CEO2	To apply AI-driven approaches to improve customer acquisition, engagement, retention, and overall customer experience.
CEO3	To apply AI applications and analytical techniques to solve complex business problems across various functional domains.
CEO4	To evaluate the ethical, managerial, and organizational implications of AI adoption and foster effective human-AI collaboration.
CEO5	To analyze emerging trends and future developments in AI to support innovation, strategic decision-making, and sustainable competitive advantage.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Understand the evolution of AI, human-machine interaction, and their impact on business and society.
CO2	Apply AI techniques to enhance customer acquisition, engagement, retention, and service management.
CO3	Illustrate AI applications in solving business problems across various industries and functional areas.
CO4	Evaluate ethical, managerial, and organizational challenges of AI and promote effective human-AI collaboration.
CO5	Assess future developments in AI, data-driven innovation, and emerging concepts such as machine intelligence and consciousness.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	2	1
CO2	3	3	1	2	2
CO3	3	3	2	2	2
CO4	2	3	3	3	3
CO5	1	3	2	3	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Computer Applications, Business Analytics, and Management Information Systems.

UNIT-I: Human Versus Machine What matters to a machine; What makes a mind; Looking into the Future; Programs that Write Programs; Four Basic Drives; The Intelligence Explosion; The Point of No Return; The Law of Accelerating Returns; The Singularitarian; The End of Human Era; The Cyber Ecosystem; Telemigration, Automation and the Transformation; Digitech Impulse.

UNIT- II: Using AI to Attract, Persuade, and Retain Customer Market Research; Marketplace Segmentation; Raising Awareness; Social Media Engagement; In Real Life; The B2B World; The In-Store Experience; On the Phone; The Onsite Experience—Web Analytics; Merchandising; Closing the Deal; Back to the Beginning: Attribution; Growing Customer Expectations; Retention and Churn; Many Unhappy Returns; Customer Sentiment; Customer Service; Predictive Customer Service; The AI Business Platform

UNIT-III: Solving the Business Problems Application of AI: Finance, Manufacturing, Transportation, Energy, Healthcare, Communication, Law, and Defence. One-to-One Marketing; One-to-Many Advertising; the Four Ps; The Customer Journey; Branding; Your Bot Is Your Brand; Marketing Mix Modelling; Econometrics; Customer Lifetime Value

UNIT-IV: The Challenges Machine Mistakes; Human Mistakes; The Ethics of AI; What Machines Haven't Learned Yet; How to Train a Dragon; The Human Advantage; AI to Leverage Humans; Collaboration at Work; Your Role as Manager; AI for Best Practices.

UNIT-V: The Future the Path to the Future; Machine-Train Thyself; Intellectual Capacity as a Service; Data as a Competitive Advantage; How Far Will Machines Go; Computing Tomorrow; Consciousness and AI: What is Consciousness; is Consciousness beyond Science; Experimental clues about Consciousness; Theories of Consciousness.

Relevant Case study discussion in all units

References

1. James Barrat (2015) Our Final Invention; Pan Macmillan India, 1st Edition.
2. Garry K & Mig G. (2017) Deep Thinking: Where Machine Intelligence Ends and Human Creativity Begins; John Murray Publications, 1st Edition.
3. Kamal Y. (2020) Marketing Management; NRBC, 1st Edition.
4. Jim Sterne, G.A. Poe & Gildan M. (2018) Artificial Intelligence for Marketing; Gildan Media-Audible Book, 1st Edition.
5. Max Tegmark (2017) Life 3.0: Being Human in the Age of AI; Knopf, 1st Edition.

MBA (IV Sem)		L	T	P	Cr
	24MB75 Financial Analytics	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop a strong foundation in financial analytics, data science, R programming, and statistical techniques for financial data analysis.
CEO2	To equip with the ability to analyze financial securities, market trends, and investment performance using quantitative and visualization techniques.
CEO3	To apply portfolio optimization, data mining, clustering, and regression techniques for investment decision-making.
CEO4	To develop competency in evaluating financial markets using advanced quantitative models, trading strategies, and option pricing techniques.
CEO5	To apply predictive analytics and computational finance models for forecasting financial performance and managing investment risk.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts of financial analytics, data science, R programming, and statistical measures for analyzing financial data.
CO2	Analyze financial securities using data visualization, time series models, and Sharpe ratio to evaluate investment performance.
CO3	Apply portfolio optimization, clustering algorithms, covariance analysis, and regression techniques for investment portfolio construction.
CO4	Evaluate market sentiment and trading strategies using Markov regime switching, Bayesian reasoning, foreign exchange analysis, and Black–Scholes option pricing models.
CO5	Develop predictive financial models using classification trees, recursive partitioning, binomial option pricing, and computational finance techniques for investment decision-making.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	-	1	-
CO2	3	3	-	2	1
CO3	3	3	1	2	1
CO4	3	3	1	3	2
CO5	3	3	2	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Financial Management, Investment Management, Business Statistics, and Computer Applications.

UNIT-I

Financial analytics: Concept and Practices- Data science - What is R and its application - Language features: functions-- Assignment-- Arguments and types. Financial Statistics: Concept and mathematical expectation - Probability - Mean; SD and Variance - Skewness and Kurtosis - Covariance and correlation -Capital Asset Pricing model.

UNIT-II

Financial Securities: Bond and Stock investments - Housing and Euro crisis - Securities Datasets and Visualization - Plotting multiple series. Time Series and Sharpe ratio: Examining and Stationary - Auto Regressive and integrated moving average Processes-- Time periods and Annualizing - Ranking investment candidates - Sharpe Ratio for Income Statement growth.

UNIT -III

Markowitz means - variance optimization - Optimal Portfolio of two risky assets - Data mining with Portfolio optimization- Cluster Analysis - K -means Clustering and Algorithm - Covariance and Precision matrices - Usage of Regression.

UNIT -IV

Gauging the market Sentiment: Markov Regime Switching model - Bayesian reasoning - Beta distribution. Stimulating Trading Strategies: Foreign exchange markets - Chart analytics - Initialization and finalization - Bayesian Reasoning within Positions. Black - Scholes model and option - Implied volatility: Black - Scholes model: Concept and applications - Derivation - Algorithm for - Implied volatility.

UNIT -V

Prediction using fundamentals and binomial model for options: Best income statement Portfolio - obtaining Price Statistics - combining the income statement with Price statistics - Prediction using classification trees and Recursive Partitioning. Applying Computational finance - risk Neutral Pricing and No Arbitrage - High Risk - Free Rate Environment.

Relevant Case study discussion in all units

References

1.Financial Analytics with R _ Mark J. Bennets, Cambridge University Press.

MBA (IV Sem)		L	T	P	Cr
	24MB76 HR Analytics Cloud	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand the concepts, significance, and organizational value of Human Resource Analytics (HR Analytics).
CEO2	To explain HR Analytics frameworks, HR maturity models, and strategic HR measurement systems.
CEO3	To develop knowledge of HR analytics processes, data management, and analytical techniques for evidence-based decision-making.
CEO4	To apply HR metrics, dashboards, statistical tools, and data visualization techniques to analyse workforce performance.
CEO5	To evaluate HR scorecards and measurement systems to improve organizational performance and strategic HR outcomes.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the concepts, role, and business value of HR Analytics in improving organizational effectiveness.
CO2	Apply HR Analytics frameworks and maturity models to evaluate HR performance and strategic contributions.
CO3	Understand HR data using appropriate analytical methods and techniques to support evidence-based HR decisions.
CO4	Describe HR metrics, dashboards, statistical software, and data visualization tools for workforce analysis and reporting.
CO5	Enumerate HR scorecards and measurement systems to evaluate HR programs and align HR outcomes with organizational performance.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	1	2	2
CO3	2	3	2	2	2
CO4	3	3	1	2	2
CO5	3	3	2	2	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Human Resource Management, Business Statistics, and Computer Applications.

UNIT-I: HR Analytics in Perspective: Role of Analytics, Defining HR Analytics, The Third Wave for HR value creation, HR Measurement journey in tune with HR maturity journey, Understanding the organizational system (Lean), Locating the HR challenge in the system, Valuing HR Analytics in the organizational system, Typical problems. Case Studies

UNIT-II: HRA Frameworks: Current approaches to measuring HR and reporting value from HR contributions, Strategic HR Metrics versus Benchmarking, HR Scorecards & Workforce Scorecards and how they are different from HR Analytics, **HR Maturity Framework:** From level 1 to level 5, HR Analytics Frameworks: (a) LAMP framework; (b) HCM: 21 Framework and (c) Talentship Framework, 5 overarching components of an effective Analytics framework.

UNIT-III: Basics of HR Analytics: Basics of HR Analytics, what is Analytics, Evolution, Analytical capabilities, Analytic value chain, Analytical Model, Typical application of HR analytics. Insight into Data Driven HRA: Typical data sources, Typical questions faced (survey), Typical data issues, Connecting HR Analytics to business benefit (case studies), Techniques for establishing questions, Building support and interest, Obtaining data, Cleaning data (exercise), Supplementing data.

UNIT-IV: HR Metrics: Defining metrics, Demographics, data sources and requirements, Types of data, tying data sets together, Difficulties in obtaining data, ethics of measurement and evaluation. Human capital analytics continuum. HR Dashboards: Statistical software used for HR analytics: MS-Excel, IBM-SPSS, IBMAMOS, SAS, and R programming and data visualization tools such as Tableau, Plotly, Click view and Fusion Charts.

UNIT-V: HR Scorecard: Assessing HR Program, engagement and Turnover, finding money in Analytics, Linking HR Data to operational performance, HR Data and stock performance. Creating HR Scorecard, develop an HR measurement system, guidelines for implementing a HR Scorecard.

Relevant Case study discussion in all units

References

1. Moore, McCabe, Duckworth, and Alwan. The Practice of Business Statistics: Using Data for Decisions, Second Edition, New York: W.H.Freeman, 2008.
2. Predictive analytics for Human Resources, Jac Fitz-enz, John R. Mattox, II, Wiley, 2014.
3. Human Capital Analytics: Gene Pease Boyce Byerly, Jac Fitz-enz, Wiley, 2013.
4. The HR Scorecard: Linking People, Strategy, and Performance, by Brian E. Becker, Mark A. Huselid, Mark A Huselid, David Ulrich, 2001.
5. HR Analytics: The What, Why and How, by Tracey Smith

MBA (IV Sem)		L	T	P	Cr
	24MB77 Natural Language Processing	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Basic Concepts of Natural Language Processing concepts, language modeling techniques, and text preprocessing methods.
CEO2	To apply Word-level analysis techniques, statistical models, and part-of-speech tagging methods for linguistic data processing.
CEO3	To apply Syntactic structures using grammar-based and probabilistic parsing techniques to understand sentence construction.
CEO4	To apply Semantic and pragmatic analysis methods to extract meaning, resolve ambiguity, and improve language understanding.
CEO5	To analyze techniques and lexical resources for developing intelligent NLP applications and language processing systems.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Describe the fundamental concepts and preprocessing techniques used in Natural Language Processing.
CO2	Illustrate statistical language models and part-of-speech tagging techniques for text analysis.
CO3	Discuss and construct syntactic structures using grammar-based and probabilistic parsing methods.
CO4	Interpret semantic meaning and resolve language ambiguity using semantic analysis techniques.
CO5	Evaluate the analysis methods and lexical resources for advanced NLP applications

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	3	1	1	1
CO2	1	3	1	1	1
CO3	2	3	1	1	
CO4	1	2	1	1	
CO5		3	1	2	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of business communication language and language related AI concepts.

UNIT-I: Introduction: Origins and challenges of NLP – Language Modeling: Grammar-based LM, Statistical LM – Regular Expressions, Finite-State Automata – English Morphology, Transducers for lexicon and rules, Tokenization, Detecting and Correcting Spelling Errors, Minimum Edit Distance.

UNIT-II: Word Level Analysis: Unsmoothed N-grams, Evaluating N-grams, Smoothing, Interpolation and Backoff – Word Classes, Part- of-Speech Tagging, Rule-based, Stochastic and Transformation-based tagging, Issues in PoS tagging – Hidden Markov and Maximum Entropy models.

UNIT-III: Syntactic Analysis: Context-Free Grammars, Grammar rules for English, Treebanks, Normal Forms for grammar – Dependency Grammar – Syntactic Parsing, Ambiguity, Dynamic Programming parsing – Shallow parsing Probabilistic CFG, Probabilistic CYK, Probabilistic Lexicalized CFGs – Feature structures, Unification of feature structures

UNIT-IV: Semantics and Pragmatics: Requirements for representation, First-Order Logic, Description Logics – Syntax-Driven Semantic analysis, Semantic attachments – Word Senses, Relations between Senses, Thematic Roles, selectional restrictions – Word Sense Disambiguation, WSD using Supervised, Dictionary & Thesaurus, Bootstrapping methods – Word Similarity using Thesaurus and Distributional methods.

UNIT-V: Discourse Analysis and Lexical Resources: Discourse segmentation, Coherence – Reference Phenomena, Anaphora Resolution using Hobbs and Centering Algorithm – Coreference Resolution – Resources: Porter Stemmer, Lemmatizer, Penn Treebank, Brill's Tagger, WordNet, PropBank, FrameNet, Brown Corpus, British National Corpus (BNC).

Relevant Case study discussion in all units

Text Books:

1. Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics and Speech, 2ndEdition, Daniel Jurafsky, James H. Martin - Pearson Publication,2014.
2. Natural Language Processing with Python, First Edition, Steven Bird, Ewan Klein and Edward Loper, O'Reilly Media,2009.

References

1. Language Processing with Java and Ling Pipe Cookbook, 1stEdition, Breck Baldwin, Atlantic Publisher, 2015.
2. Natural Language Processing with Java, 2ndEdition, Richard M Reese, O'Reilly Media,2015.
3. Handbook of Natural Language Processing, Second, NitinIndurkha and Fred J. Damerau, Chapman and Hall/CRC Press, 2010.Edition
4. Natural Language Processing and Information Retrieval, 3rdEdition, Tanveer Siddiqui, U.S. Tiwary, Oxford University Press,2008.

MBA (IV Sem)		L	T	P	Cr
	24MB78	4	-	-	3
	Augmented Reality & Virtual Reality				

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop an understanding of augmented reality concepts, display technologies, and tracking systems.
CEO2	To develop the ability to apply computer vision, interaction techniques, and software architectures in augmented reality applications.
CEO3	To develop an understanding of virtual reality concepts, geometric modeling, and optical principles.
CEO4	To develop competency in human vision, visual perception, and rendering techniques for immersive virtual environments.
CEO5	To develop the ability to apply motion, interaction, and audio principles for designing immersive virtual reality experiences.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the fundamentals of augmented reality, display technologies, and tracking systems.
CO2	Apply computer vision, interaction techniques, and software architectures in augmented reality applications.
CO3	Analyze virtual reality concepts, geometric transformations, and optical principles used in VR systems.
CO4	Apply principles of human vision, visual perception, and rendering techniques to develop immersive virtual environments.
CO5	Apply motion, interaction, and audio principles to design effective virtual reality experiences.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	1
CO2	2	3	2	2	2
CO3	2	3	1	2	1
CO4	2	3	2	2	2
CO5	2	3	3	2	3

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Computer Applications, Digital Technologies, and Management Information Systems.

UNIT-I: Introduction to Augmented Reality: Augmented Reality - Defining augmented reality, history of augmented reality, Examples, Related fields Displays: Multimodal Displays, Visual Perception, Requirements and Characteristics, Spatial Display Model, Visual Displays Tracking: Tracking, Calibration, and Registration, Coordinate Systems, Characteristics of Tracking Technology, Stationary Tracking Systems, Mobile Sensors

UNIT-II: Computer Vision for Augmented Reality: Marker Tracking, Multiple-Camera Infrared Tracking, Natural Feature Tracking by Detection, Outdoor Tracking. Interaction: Output Modalities, Input Modalities, Tangible Interfaces, Virtual User Interfaces on Real Surfaces, Augmented Paper, Multi-view Interfaces, Haptic Interaction Software Architectures: AR Application Requirements, Software Engineering Requirements, Distributed Object Systems, Dataflow, Scene Graphs

UNIT-III : Introduction to Virtual Reality: Defining Virtual Reality, History of VR, Human Physiology and Perception. The Geometry of Virtual Worlds: Geometric Models, Axis-Angle Representations of Rotation, Viewing Transformations. Light and Optics: Basic Behavior of Light, Lenses, Optical Aberrations, The Human Eye, Cameras, Displays

UNIT-IV: The Physiology of Human Vision: From the Cornea to Photoreceptors, From Photoreceptors to the Visual Cortex, Eye Movements, Implications for VR Visual Perception: Visual Perception - Perception of Depth, Perception of Motion, Perception of Color Visual Rendering: Visual Rendering -Ray Tracing and Shading Models, Rasterization, Correcting Optical Distortions, Improving Latency and Frame Rates, Immersive Photos and Videos

UNIT-V : Motion in Real and Virtual Worlds: Velocities and Accelerations, The Vestibular System, Physics in the Virtual World, Mismatched Motion and Vection Interaction: Motor Programs and Remapping, Locomotion, Social Interaction Audio: The Physics of Sound, The Physiology of Human Hearing, Auditory Perception, Auditory Rendering.

Relevant Case study discussion in all units

Text Books:

1. Augmented Reality: Principles & Practice by Schmalstieg / Hollerer, Pearson Education India;First edition (12 October 2016),ISBN-10: 9332578494
2. Virtual Reality, Steven M. LaValle, Cambridge University Press, 2016

References

1. Allan Fowler-AR Game Developmentll, 1st Edition, A press Publications, 2018, ISBN 978-1484236178
2. Understanding Virtual Reality: Interface, Application and Design, William R Sherman and Alan B Craig, (The Morgan Kaufmann Series in Computer Graphics)". Morgan Kaufmann Publishers, San Francisco, CA, 2002
3. Developing Virtual Reality Applications: Foundations of Effective Design, Alan B Craig, William R Sherman and Jeffrey D Will, Morgan Kaufmann, 2009
4. Designing for Mixed Reality, Kharis O'Connell Published by O'Reilly Media, Inc., 2016, ISBN:9781491962381
5. Sanni Siltanen- Theory and applications of marker-based augmented reality. Julkaisija – Utgivare Publisher. 2012. ISBN 978-951-38-7449-0
6. Gerard Jounghyun Kim, "Designing Virtual Systems: The Structured Approach", 2005

MBA (IV Sem)		L	T	P	Cr
	24MB79 Deep Learning	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To provide a foundation in machine learning and deep learning concepts.
CEO2	To develop an understanding of artificial neural networks and deep learning architectures.
CEO3	To familiarize with deep learning frameworks and model development techniques.
CEO4	To apply deep learning models for solving real-world problems.
CEO5	To introduce advanced deep learning applications and current research trends.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Explain the fundamentals of machine learning and deep learning.
CO2	Explain artificial neural networks and deep network training techniques.
CO3	Apply deep learning frameworks to build and evaluate neural network models.
CO4	Apply convolutional and recurrent neural networks for learning tasks.
CO5	Explain deep learning applications and emerging research directions.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	2	2	-	-	-
CO2	2	2	-	-	-
CO3	2	3	-	-	1
CO4	2	3	-	-	1
CO5	2	2	-	1	1

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Fundamentals of Artificial Intelligence, Machine Learning, Statistics, and Python Programming.

UNIT-I

Fundamentals of Deep Learning: Artificial Intelligence, History of Machine learning: Probabilistic Modeling, Early Neural Networks, Kernel Methods, Decision Trees, Random forests and Gradient Boosting Machines, Fundamentals of Machine Learning: Four Branches of Machine Learning, Evaluating Machine learning Models, Overfitting and Underfitting.

UNIT-II

Introducing Deep Learning: Biological and Machine Vision, Human and Machine Language, Artificial Neural Networks, Training Deep Networks, Improving Deep Networks.

UNIT-III

Neural Networks: Anatomy of Neural Network, Introduction to Keras: Keras, Tensor Flow, Theano and CNTK, Setting up Deep Learning Workstation, Classifying Movie Reviews: Binary Classification, Classifying newswires: Multiclass Classification.

UNIT-IV

Convolutional Neural Networks: Neural Network and Representation Learning, Convolutional Layers, Multichannel Convolution Operation, Recurrent Neural Networks: Introduction to RNN, RNN Code, PyTorch Tensors: Deep Learning with PyTorch, CNN in PyTorch.

UNIT-V

Interactive Applications of Deep Learning: Machine Vision, Natural Language processing, Generative Adversarial Networks, Deep Reinforcement Learning. Deep Learning Research: Autoencoders, Deep Generative Models: Boltzmann Machines Restricted Boltzmann Machines, Deep Belief Networks.

Text Books:

1. Deep Learning- Ian Goodfellow, Yoshua Bengio and Aaron Courville, MIT Press, 2016
2. Deep Learning with Python - Francois Chollet, Released December 2017, Publisher(s): Manning Publications, ISBN: 9781617294433
3. Deep Learning Illustrated: A Visual, Interactive Guide to Artificial Intelligence - Jon Krohn, Grant Beyleveld, Aglaé Bassens, Released September 2019, Publisher(s): Addison-Wesley Professional, ISBN: 9780135116821
4. Deep Learning from Scratch - Seth Weidman, Released September 2019, Publisher(s): O'Reilly Media, Inc., ISBN: 9781492041412

Relevant Case study discussion in all units

References

1. Artificial Neural Networks, Yegnanarayana, B., PHI Learning Pvt. Ltd, 2009.
2. Matrix Computations, Golub, G.,H., and Van Loan,C.,F, JHU Press,2013.
3. Neural Networks: A Classroom Approach, Satish Kumar, Tata McGraw-Hill Education, 2004.

MBA (IV Sem)		L	T	P	Cr
	24MB80 Data Visualization –Power BI	4	-	-	3

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To understand Fundamentals of Data visualization concepts, principles, and validation techniques for effective data communication.
CEO2	To apply data preparation and transformation techniques using Power BI and Power Query for business analytics.
CEO3	To design how to Design and develop interactive visualizations, dashboards, and reports to support data-driven decision-making.
CEO4	To develop advanced Power BI features including DAX, data modeling, time intelligence functions, and AI-powered analytics.
CEO5	To design the process of Publish, validate, and deploy business intelligence solutions using Power BI Service and cloud-based reporting platforms.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Discuss the principles, techniques, and validation methods of data visualization and visual analytics.
CO2	Apply Power BI and Power Query for data preparation, transformation, modeling, and AI-driven visualization.
CO3	Create interactive visualizations, reports, and dashboards to effectively communicate analytical insights.
CO4	Develop advanced analytics solutions using DAX, time intelligence functions, and Power BI Service.
CO5	Design, validate, and publish professional dashboards using advanced visualization and storytelling techniques in Power BI.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2	1	1	2
CO2	1	3	1	1	
CO3	1	3	2	1	2
CO4	2	2	1	1	1
CO5	2	2	1	1	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)

Prerequisite: Basics of Artificial Intelligence and basics of Power BI

UNIT-I: Introduction Visualization – What is Visualization and Why do it: External representation – Interactivity – Difficulty in Validation. Data Abstraction: Dataset types – Attribute types – Semantics. Task Abstraction – Analyze, Produce, Search, Query. Four levels of validation – Validation approaches.

UNIT-II: (Power BI) Data Preparation- Connecting to different data sets, Basic data prep and model on Power Query, Drill down and Tooltip, AI visuals (Q&A, Analyze, Decomposition) DATA

UNIT-III: Visualization and Dashboards- Inbuilt visuals, Custom visuals, Learn from existing reports, Visualization as a Tooltip, Final dashboard – putting it together Filter, slicer, bookmarks, buttons

UNIT-IV: (Power BI) Performing Computations - Combine multiple files and folders, Merge and append, Custom calculations Conditional columns, Column from examples, Advanced Editor. DAX - Introduction to Measures, Calculated Columns vs Quick Measures, Creating a Date Table, Time Intelligence Functions. Power BI service S- Publishing to Power BI Service, Power BI dataflows, Dashboards and Cross-Reporting

UNIT- V: Visualizations- Introduction to Dimensions and Measures, Bar Chart, Line Chart, Table, Heat Map, Tree map, Packed Bubble, Tooltip calculations- Calculated Fields, Parameters, Introduction to Level of Detail (LOD) Final Dashboard- Animations, Tooltips, Dashboard and Stories. Power BI Report Validation and Publish, Understanding Power BI Cloud Architecture.

Relevant Case study discussion in all units

Text Books:

1. The Definitive Guide to DAX – 2nd Edition Marco Russo Alberto Ferrari
2. M Is for (Data) Monkey: A Guide to the M Language in Excel Power Query Ken Puls & Miguel Escobar
3. Tableau Your Data! Fast and Easy Visual Analysis with Tableau Software by Daniel G. Murray. 1st Edition, WILEY.

References

1. Colin Ware, “Information Visualization Perception for Design”, Third edition, Morgan Kaufmann Publishers, 2012.
2. Robert Spence, “Information Visualization Design for Interaction”, Second Edition, Pearson Education.
3. Matthew O. Ward, George Grinstein, Daniel Keim, “Interactive Data Visualization: Foundation, Techniques and Applications

MBA (IV Sem)		L	T	P	Cr
	24MB58 Main Project Submission and Viva-Voce	-	-	8	4

Course Educational Objectives (CEOs): In this course, the students will learn

CEO1	To develop the ability to identify and analyze a real-world business problem through industry internship.
CEO2	To develop competency in applying management theories, research methods, and analytical tools to solve business problems.
CEO3	To develop professional skills in project execution, report writing, and presentation.
CEO4	To foster ethical research practices, teamwork, and professional responsibility in project work.
CEO5	To enhance communication, leadership, and decision-making skills through project implementation and viva-voce.

Course Outcomes (COs): At the end of the course, students will be able to

CO1	Identify and define a business problem based on the internship experience.
CO2	Analyze business problems using appropriate management concepts, research methods, and analytical tools.
CO3	Develop feasible solutions and recommendations for organizational problems.
CO4	Prepare a professional project report following ethical research and plagiarism guidelines.
CO5	Present and defend the project findings effectively through seminar and viva-voce.

CO-PO Articulation Matrix:

Course Outcomes	Program Outcomes (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	1	2	1	3	1
CO2	2	3	2	1	3
CO3	3	2	3	2	2
CO4	3	3	2	3	3
CO5	2	2	2	2	2

1=Slight(low), 2=Moderate (Medium), 3=Substantial (High)