

**LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
**(An Autonomous Institution)**

**(With effect from the Academic Year 2025-26) - LR24**

**Department of Management Studies**  
**MBA Year-II Semester–III**

S.No.	Course Code	Course Type /Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
				L	T	P	Contact hours per week	CIE	SEE	Duration in of SEE in Hrs	
Theory Course											
1.	P24MB301	CORE	Operations Management	4	1	-	5	40	60	3	4
2.	P24MB302	CORE	E-Global Business	4	1	-	5	40	60	3	4
3.	P24MB303	CORE	Operations Research	4	1	-	5	40	60	3	4
Discipline Specific Elective- I											
4.	P24MB304	DSE	Investment Management (Finance)	4	1	-	5	40	60	3	5
	P24MB305		Marketing Engineering (Marketing)	4	1	-					
	P24MB306		Compensation Management (Human Resource)	4	1	-					
	P24MB307		Data Base Management Systems (Systems)	4	1	-					
	P24MB308		Introduction to Business Analytics(Business Analytics)	4	1	-					
	P24MB309		Business Feasibility and Analysis (Entrepreneurship)	4	1	-					
	P24MB310		Essentials of Logistics & Supply Chain Management (Supply Chain)	4	1	-					
	P24MB311		Health Care Planning and Operations Management (Health Care)	4	1	-					
Discipline Specific Elective – II											
5..	P24MB312	DSE	Financial System & Services (Finance)	4	1	-	5	40	60	3	5
	P24MB313		Advertising and Brand Management (Marketing)	4	1	-					
	P24MB314		Industrial Relations and Labour Code (Human Resource)	4	1	-					
	P24MB315		Business Analytics (Systems)	4	1	-					
	P24MB316		Text, Web and Social Media Analytics (Business Analytics)	4	1	-					
	P24MB317		Innovation and Design Thinking (Entrepreneurship)	4	1	-					
	P24MB318		E-Procurement, Storage & Warehouse Management (Supply Chain)	4	1	-					
	P24MB319		Health Care, Patient Care Information Technology and Systems (Health Care)	4	1	-					

Project Work											
6.	P24MB3P1	PROJ	*Summer Internship	-	2	-	2	50	-	-	2
7.	P24MB3P2	PROJ	**Project Work Synopsis with Seminar	-	2	-	2	50	-	-	2
<b>III SEMESTER CREDITS</b>						-		<b>600</b>			<b>26</b>
<b>TOTAL CREDITS AT THE END OF III SEMESTER</b>								<b>1900</b>			<b>78</b>

**L:** Lecture(*Hrs/Wk/Sem*) **T:** Tutorial (*Hrs/Wk/Sem*) **P:** Practical

**CIE:** Continuous Internal Evaluation

**SEE:** Semester End Examination

**DSE:** Discipline Specific Elective  
work

**ID:** Interdisciplinary- Elective

**PROJ:** Project

**Note:**

\*All Students Shall Undergo compulsory Internship in any selected Organization for a period of One Month and submit “ Internship Completion Certificate: to the College\*

\*\* All Students has to choose a Topic and do a Dissertation in any selected Organization for a period of One Month and submit a Project Work Synopsis\*\*

1. Each contact hour is a Clock Hour.
2. The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.

Course-Code	Course Title				Core/ Elective	
<b>P24MB301</b>	<b>OPERATIONS MANAGEMENT</b>				Core	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

**Course Objectives:** The Objectives of this Course are:

1. To provide an understanding on the Process Planning, Design, Process Layout, Types of Production systems and to comprehend the different ways of measuring Productivity.
2. To develop Skills necessary to understand Work study and know the Techniques to Manage Inventory.
3. To provide knowledge on managing Quality and ways Total Quality Management facilitates Organizational effectiveness.

**Course Outcomes:** After Completion of the Course, Students will be able to:

1. Apply knowledge of basic Concepts of Operations Management for developing processes and improving Operational Performance.
2. To develop aggregate capacity plans and Mater Production Schedule in operation environments and enabling the importance of facility location, layout and line balancing.
3. To identify and eliminate nonessential operations and develop feasible method of performing a job by applying work study techniques.
4. To calculate inventory levels and order quantities to make use of various inventory classification models.
5. To advance cognizance on Total Quality Management and to efficaciously implement the contemporary Quality techniques in an Organization.

### **Unit - I: Introduction**

Similarities and Differences between Products & Services. Basic Manufacturing Process: Casting, Machining, Welding, shearing Extrusion, heat treatment and unconventional machining. The transformation Process: Manufacturing, Service & Hybrid Agile Manufacturing. Operations Strategy.

Process design – Project, Job, Batch, Assembly and Continuous. Factors effecting Process design. Functions of Production, Planning & Control. Interface of Product Life Cycle & Process Life Cycle.

### **Unit – II: Long – range capacity Planning:**

Capacity Planning, Line Balancing, facility location and Facility layout. Service facility layout.

**Aggregate Planning:** Aggregate Demand, criteria for selecting Aggregate Plans, Aggregate Plans for Service & mathematical Models for Aggregate Planning.

**Master Production Scheduling:** Objective, Procedure and Time frame.

**Sequencing of Operations:** n-Jobs with one, two and three facilities.

**Maintenance Management:** Repair Programmes, Break down, Preventive and Corrective maintenance. Maintenance issues in service organizations.

### **Unit - III: Work Study & Service Management:**

- (a) Work study: Definition and its advantages and the various components.

Techniques of methods analysis and work measurement

(b) Service Management: Nature of services. Types of Service operations- Quasi manufacturing, customer as participant and customer as product, Scheduling challenges in various service Operations, Value creation through service. Service quality, Culture and innovation

#### **Unit - IV: Materials Management:**

Need and importance of Materials management. Materials Requirement Planning, Manufacturing Resource Planning. Purchase Management: Sources of Supply of Materials, selection, evaluation and rating of Vendors . Methods of vendor rating. Value Analysis : the concept and its role in cost reduction.

#### **Unit - V: Stores Management:**

Inventory decision: Need ,functions and Significance of Inventory, Safety Stock . Deterministic Models of Inventory: Purchase and Manufacturing Models without and with shortages. Probabilistic Models of Inventory : Fixed order quantity systems and fixed period quantity systems

Stores Management: Functions of Stores and Materials control. Classification, Codification , Simplification and Standardization of materials . Bin Card, Double-Bin and stores Ledger. Selective Inventory Control: ABC, XYZ, VED, FNS and SDE Analysis.

#### **Suggested Readings:**

1. Norman Gaither & Greg Frazier, Operation Management 9th edition, Cengage Learning..
2. Stevenson J. William, “Operations Management”, 2009, 9th Ed. Tata McGraw-Hill.
3. Amol Gore and Robert Panizzolo, Operation Management
4. R. Panneerselvam, Production and Operation Management 3rd edition, PHI
5. Danny Samson and Prakash J.Singh, “Operations Management-An integrated approach”, 2009, 1st Ed. Cambridge
6. Ray Wild, “Operations Management, 2003, Thomson Learning.
7. KanishkaBedi, “Production and Operations Management”, 2007, 3rd Ed. Oxford University Press.
8. Everett. Adam, Jr. and Ronald J. Elbert, “Production and Operations Management Concepts, Models and Behaviour”, 2003, Prentice Hall of India, 5th Ed.
9. S.N. Chary Production & Operation Management.

Course-Code	Course Title				Core/ Elective	
<b>P24MB302</b>	<b>E-GLOBAL BUSINESS</b>				Core	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

### Course Objectives:

1. To understand the fundamentals of e-commerce and its impact on global business.
2. To explore the challenges and opportunities associated with conducting business in a digital environment.
3. To analyse the strategies and technologies used in e-global business.
4. To develop critical thinking and problem-solving skills in the context of e-global business.

### Course Outcomes:

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

1. Identify and explain the key concepts and principles of e-global business.
2. Evaluate the impact of e-commerce on global business operations.
3. Analyse and develop strategies for conducting business in a digital environment.
4. Apply critical thinking skills to solve problems and make informed decisions related to e-global business.

### Unit 1: Introduction to e-Global Business

Unit 1: Introduction to e-Global Business

Introduction to e-commerce and its evolution, Globalization and the digital economy, Benefits and challenges of e-global business, Global market entry strategies, Digital transformation and its impact on global business, Evolution of online marketplaces and their role in e-global business, The role of technology and innovation in driving e-commerce growth, Regulatory and legal frameworks governing e-global business, The role of artificial intelligence (AI) and automation in e-global business, Digital entrepreneurship and the emergence of startups in the digital space, Cybersecurity challenges in e-global business and methods for protection, The impact of social media on global business and customer engagement.

### Unit 2: E-Global Business Models

Types of e-business models (B2C, B2B, C2C, etc.), E-marketplaces and online platforms- Digital marketing and customer relationship management- Payment systems and security in e-global business- Subscription-based business models and recurring revenue strategies- Influencer marketing and its effectiveness in e-commerce, Collaborative consumption and its impact on e-global business-Influencer selection and management strategies for effective digital marketing, Strategies for building and managing online communities to drive customer loyalty.

### Unit 3: Managing E-Global Business Operations

Supply chain management in a digital environment- Logistics and fulfilment in e-commerce- International trade and legal considerations- Cross-cultural management and customer service- Reverse logistics and managing returns in e-global business- Intellectual property

rights and protection in digital transactions, Customer data privacy and compliance with data protection regulations- Cloud computing and its role in supporting scalable and flexible e-commerce operations- Supply chain sustainability and responsible sourcing in e-global business- Risk management in e-global business operations.

#### **Unit 4: E-Global Business Strategies**

Developing an e-global business strategy- E-marketing and online advertising- Data analytics and business intelligence- Social media and online reputation management- Personalization and customization strategies in e-commerce- Competitive analysis and benchmarking in the digital marketplace- Personalization through machine learning and recommendation systems- Social commerce and the integration of e-commerce with social media platforms- Voice search optimization and its impact on e-commerce websites.

#### **Unit 5: Emerging Trends in E-Global Business**

Mobile commerce and the rise of m-commerce, Artificial intelligence and machine learning in e-commerce, Blockchain technology and its applications, Ethical and sustainability issues in e-global business, Voice commerce and the impact of smart speakers on e-commerce- (VR) in enhancing online shopping experiences, Cryptocurrencies and their potential for transforming global payments, Environmental sustainability practices in e-global business- Virtual reality (VR) and augmented reality (AR) in transforming the online shopping experience-The ethical implications of AI and automation in e-commerce decision-making processes.

#### **Suggested Books:**

1. "E-Commerce 2025: 11 Trends Impacting E-Commerce Companies This Decade" by Gerald Celente
2. "Global E-commerce: Impacts of National Environment and Policy" by Yong Zhou
3. "E-Business and E-Commerce Management" by Dave Chaffey and Tanya Hemphill
4. "Global Electronic Commerce: A Policy Primer" by Catherine L. Mann and Sarah Cleeland Knight
5. "e-Business: The Indian Scenario" by Ravi Kalakota and Marcia Robinson
6. "e-Commerce in India: A Game Changer for the Economy" by Pradeep Kumar.
7. "Global E-commerce: Impacts of National Environment and Policy" edited by Geng Cui and Yu Tian
8. "Digital Marketing: Strategy, Implementation and Practice" by Dave Chaffey and Fiona Ellis-Chadwick
9. Jayakar Dalavai, Vidyadhar Reddy Aileni, International Business, BS Publications

Course-Code	Course Title				Core/ Elective	
<b>P24MB303</b>	<b>OPERATIONS RESEARCH</b>				Core	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

**Course Objectives:** The Objectives of this Course are:

1. To familiarize the Students with the basic Concepts and tools of Operations Research.
2. To make the Students understand the mathematical models used in Operations Research.
3. To provide the Students to learn the techniques constructively to make effective Business decisions.

**Course Outcomes:** After Completion of the Course, Students will be able to:

1. Develop mathematical model and solve the real life system with limited constraints by applying LPP.
2. Formulate and solve transportation and assignment concepts to implement Supply chain management.
3. Evaluate alternatives using decision making under risk and uncertainty and game theory.
4. Apply PERT and CPM techniques to plan, schedule and control project.
5. Apply simulation process in queuing theory to evaluate the system.

#### **Unit – I: Introduction**

- i. Introduction to OR- Origin, Nature, definitions, Managerial applications and limitations of OR.
- ii. Linear and Non- Linear, Integer, Goal [Multi-Objective] and Dynamic Programming Problems (Emphasis is on Conceptual frame work-no numerical problems).
- iii. Linear Programming: Mathematical model, Formulation of LPP, assumptions underlying LPP, Solution by the Graph, Exceptional cases.

#### **Unit – II: Allocation Model - I**

- i. LPP - Simplex Method- Solution to LPP problems Maximization and Minimization cases Optimality conditions. Degeneracy.
- ii. Dual - Formulation, Relationship between Primal - Dual, Solution of dual, Economic interpretation of dual.
- iii. Sensitivity analysis and its implications.

#### **Unit – III: Allocation Model - II**

- i. Transportation Problem (TP) - Mathematical model, IBFS using northwest corner rule, Row and Column Minimum methods, Matrix minimum method(LCM) and Vogel's approximation method, Unbalanced TP, Degeneracy, Optimality Test and Managerial applications.
- ii. Assignment Problem (AP): Mathematical model, Unbalanced AP, Restricted AP, method of obtaining solution- Hungarian method.
- iii. Travelling salesman problem, Managerial applications of AP and TSP.

#### **Unit – IV: Network Models**

- i. Network fundamentals- scheduling the activities -Fulkerson's Rule –CPM- earliest and latest times -determination of ES and EF in the Forward Pass - LS and LF in backward pass determination of Critical Path, Crashing, time cost trade off.
- ii. PERT-Beta Distribution, probabilistic models, Calculation of CP, resource analysis and allocation.

#### **Unit – V: Waiting Line / Competitive Strategy Models**

- i. Queuing Theory - Concepts of Queue/Waiting Line - General structure of a Queuing system- Operating characteristics of Queues, deterministic Queuing models - Probabilistic Queuing Model –Cost Analysis - Single Channel Queuing model - Poisson arrival and exponential service times with infinite population.
- ii. Game Theory- concepts, saddle point, Dominance, Zero-sum game, two, three and more Persons games, analytical method of solving two person zero sum games, graphical solutions for  $(m \times 2)$  and  $(2 \times n)$  games.
- iii. Simulation- Process of simulation, Applications of simulation to different management Problems.

#### **Suggested Readings:**

1. N.D. Vohra, "Quantitative Techniques in Management", 2010, 4th Ed. TMH.
2. J.K. Sharma, "Operations Research Theory and Applications 2009, 4th Ed. Macmillan.
3. Kasana, HS & Kumar, KD, "Introductory Operations Research theory and applications", 2008, Springer.
4. Chakravarty, P, "Quantitative Methods for Management and Economics", 2009, 1st Ed. HPH.
5. Barry Render, Ralph M. Stair, Jr. and Michael E. Hanna, "Quantitative analysis for Management", 2007, 9th Ed. Pearson.
6. Pannerselvam, R, "Operations Research", 2006, 3rd Ed. PHI.
7. Selvaraj, R, "Management Science Decision Modeling Approach", 2010, 1st Ed. Excel.
8. Ravindren, A, Don T. Phillips and James J. Solberg, 2000, "Operations Research Principles and Practice", 2nd Ed. John Wiley and Sons.
9. Hillier, Frederick S. & Lieberman, "Introduction to Operations Research Concepts and Cases", 2010, 8th Ed. TMH.
10. Prem Kumar Gupta & others, "Operations Research", 2010, S. Chand.



Course-Code	Course Title				Core/ Elective	
<b>P24MB304</b>	<b>INVESTMENT MANAGEMENT (FINANCE)</b>				<b>Elective-1</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	-	-	40	60	5

### Course Objectives:

- 1) To explain the basic concepts of risk and return
- 2) To explain the concept of portfolio return and risk and portfolio theories
- 3) To understand the features and valuation of debt instruments
- 4) To understand the features and valuation of Common stock
- 5) To describe portfolio evaluation methods

### Course Outcomes:

After studying this Course, the student will be able to:

- 1) Differentiate various avenues of investment on the basis of risk and return
- 2) Gain basic knowledge of analysing stocks
- 3) Make valuation of equity, debt and portfolio instruments
- 4) Gain an understanding of mutual funds, their performance evaluation and regulation.

### Unit – I: Introduction to Investments:

Concept; Real vs. Financial assets; Investment decision process; Sources of investment-information; Investment vs. Speculation; Factors to be considered in investment decision- Liquidity, Return, Risk, Maturity, Safety, Tax and Inflation. The concept and measurement of return-realized and expected return. Ex-ante and ex-post returns.

The concept of risk. Sources and types of risk. Measurement of risk-Range, Standard Deviation and Co-Efficient of Variation. Risk-return trade-off. Risk premium and risk aversion.

Approaches to investment analysis-Fundamental Analysis; Technical Analysis (including basic numerical on RSI, Oscillators, Moving averages for security analysis); Efficient Market Hypothesis.

### Unit – II: Portfolio Theory:

Concept of portfolio. Portfolio return and risk. Harry Markowitz's Portfolio theory, construction of minimum risk portfolio, the single-index model. Capital market theory: Introduction of risk-free asset, Capital Market Line, Separation theorem.

### Unit – III: Fixed Income Securities - Analysis, Valuation and Management:

Features and types of debt instruments, Bond indenture, factors affecting bond yield. Bond yield measurement-Current yield, holding period return, YTM, AYTM and YTC. Bond valuation: Capitalization of income method.

Bond-price theorems, Valuation of compulsorily / optionally convertible bonds, Valuation of deep discount bonds. Bond duration, Macaulay's duration and modified Macaulay's duration. Bond convexity, Considerations in managing a bond portfolio, term structure of interest rates, risk structure of interest rates.

Managing Bond Portfolio: Bond immunization, active and passive bond portfolio management strategies.

#### **Unit – IV: Common Stocks - Analysis and Valuation:**

Basic Features of Common Stock, Approaches to valuation—Balance sheet model, dividend capitalization models; earnings capitalization models; Price-Earnings multiplier approach and capital asset pricing model, Free Cash flow model, relative valuation using comparables-P/E, P/BV, P/S.

Security Market Indexes, their uses; computational procedure of Sensex and Nifty.

Capital asset pricing model (CAPM): Security Market Line. Identifying over-priced and under-priced securities. Arbitrage pricing theory (APT): The Law of one price, two factor arbitrage pricing, Equilibrium risk-return relations. A synthesis of CAPM and APT.

#### **Unit – V: Portfolio Evaluation:**

Performance measures—Sharpe's reward to variability index, Treynor's reward to volatility index, Jensen's differential index, Fama's decomposition of returns.

Mutual funds: genesis, features, types and schemes. NAVs, costs, loads and return of mutual funds, Problems and prospects in India, Regulation of mutual funds and investor's protection in India.

#### **Suggested Books:**

1. Alexander. G.J, Sharpe. W.F and Bailey. J.V, "Fundamentals of Investments", PHI, 3rd Ed.
2. Zvi Bodie, Alex Kane, Marcus.A.J, Pitabas Mohanty, "Investments", TMH, 8th Ed.
3. Prasanna Chandra, "Investment Analysis and Portfolio Management", TMH, 3rd Ed.
4. Charles.P.Jones, "Investments: Analysis and Management", John Wiley & Sons, Inc. 9th Ed.
5. Francis. J.C. & Taylor, R.W., "Theory and Problems of Investments". Schaum's Outline Series, McGraw Hill
6. Herbert. B. Mayo, "Investments: an Introduction", Thomson – South Western. 9th Ed.
7. Peter L. Bernstein and Aswath Damodaran, "Investment Management", Wiley Frontiers in Finance.
8. Dhanesh Khatri, "Security Analysis and Portfolio Management", 2010, Macmillan Publishers.
9. Sudhindra Bhat, "Security Analysis and Portfolio Management", 2009, Excel Books.
10. Preeti Singh, Investment Management, 2010, HPH, 17th Revised Edition.
11. Stephen A. Ross, Randolph Westerfield, and Jeffrey Jaffe, "Corporate Finance", TMH.
12. S. Chand "Investment Management: Security Analysis & Portfolio Management".
13. S. Kevin, "Analysis and Portfolio Management", PHI.
14. Punithavathy Pandian, "Security Analysis and Portfolio Management", Vikas Publishing House
15. Donald E. Fisher and Ronald J. Jordan: "Securities Analysis and Portfolio Management", Prentice Hall.
16. Graham & Dodd, "Security Analysis and Portfolio Management", McGraw Hill.
17. Jack Clark Francis, "Investment", TMH, New Delhi.
18. Dr.V.A.Avadhani, "Investment Management", HPH

Course-Code	Course Title				Core/ Elective	
P24MB305	MARKETING ENGINEERING (MARKETING)				Elective-I	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

### Course objectives:

The objectives of this course are;

1. Acquainting the readers with modeling of market variables using a wide variety of models
2. Use of market segmentation and perceptual maps to provide an insight into marketing strategy analysis
3. Use of forecasting models to measure demand and market response modeling
4. To gain an insight into quantitative and qualitative response models and their role in strategic analysis
5. To help understand how modeling can be used in advertising decision making and pricing analysis

### Course Outcomes:

After reading this course one should be able to;

1. Understand the relevance of modeling in marketing for logical judgment
2. Appreciate the business and economic lifetime value of marketing engineering
3. Be well versed with the various models, both qualitative and quantitative in marketing engineering
4. Understand the relevance of using modeling in marketing as a decision making tool
5. Learn the importance of marketing engineering as a strategic marketing analysis tool

### Unit – I:

Marketing Engineering Approach, Key Concepts of Marketing Engineering (ME) Model, Verbal, Model, Box and Arrow Model, Response Model, Mathematical Model, Models Vs Judgements, Trial / Repeat Model, Marketing Decision Environment, Tools for Marketing Engineering , Business Value of Marketing Engineering, Customer Value, Value in Use Assessment, Economic Life Time Value, Approaches to Measure Customer Value.

### Unit – II:

Segmentation, Targeting, Positioning-Traditional Segmentation, Targeting, Positioning through Brand Linkages, Perceptual Maps, Preference Maps, Limitations of Perceptual and Preference Map Forecasting Methods – Judgemental Method, Market and Product Analysis Method, Time Series Methods, Causal Methods, Product Life Cycle, New Product Forecasting Models – The Bass Model Bases Model, Selection of Forecasting Methods.

### Unit – III:

Market Response Models: Concept of a Response Model, Response Models – Aggregate Response Model, Individual Response Models, Shared Expenditure Models, Qualitative Response Models.

**Unit – IV:**

Strategic Market Analysis, Strategic Marketing, Decision Making, Advertising Budget Model, Rao & Miller Model, Ad budg model, the Full Model, Advisor Model, Media Decisions, Steps in Ad design Adcad systems, Syntex Approach.

**Unit – V:**

Geo-demographic analysis, Gravity Model, Pricing Models, Differential Pricing, Competitive Bidding Bases for Differential Pricing, Revenue Management Process, Promotional analysis. Promotional Effects, Promotional types and targets, Promotional Effects Model.

**Suggested Books:**

1. Gary L Lilien, Arvind Rangaswamy, Arnaud De Bruyn, “ Principles of Marketing Engineering “ 2005, P H I.
2. Gary L Lilien, Philip Kotler, Sridhara Moorthy, “Marketing Models “ ,2005, P H I
3. Gary L Lilien, Arvind Rangaswamy “Marketing Engineering “ , 2006 Trafford Publishing.
4. Paul W Farris, Neil T Bendle, Phillip E. Pfeifer, David J. Reibstein, “ Marketing Metrics”, 2010 Wharton School Publishing.

Course-Code	Course Title				Core/ Elective	
<b>P24MB306</b>	<b>COMPENSATION MANAGEMENT (HUMAN RESOURCE)</b>				<b>Elective-I</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

### **COURSE OBJECTIVES:**

1. To demonstrate various perspectives of compensation management
2. To provide thorough knowledge of planning and administering compensation in different sectors.
3. To understand the nature of executive and international compensation

### **COURSE OUTCOMES:**

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

- 1 . Understand the fundamental concepts and theories of compensation.
- 2 . Recognize the importance of compensation strategy.
3. Analyse, integrate, and apply the knowledge of administering wages in different sectors according to the different wage laws.
4. Comprehend the employee benefits and services
5. Appreciate the advancements in managing compensation at global level.

### **UNIT I: Fundamentals of Compensation**

Concept of Compensation; Different perspectives of Compensation – Stakeholders and determinants of compensation; Compensable Factors; Wage Differentials and Types of Compensation – Base pay, Variable Pay, Benefits, Incentives; The concepts of Minimum wage, Fair wage, Living wage, Money and real wages; Wage Theories – Macro and Micro.

### **UNIT II: Compensation Planning and Employee Contributions**

Developing a total Compensation Strategy and Pay Roll Management System – Competitive Advantage – Compensation Structure - Wage and Salary surveys, the wage curve, Pay grades and Rate ranges, Preparing Salary matrix; Compensation management's association with Employee Motivation, Job design and Job evaluation; Performance-related compensation, Individual and team-based compensation.

### **UNIT III: Wage Administration**

Wage Administration, Wage Policy and Wage Legislation in India - The Minimum Wages Act, 1948. The Payment of Wages Act, 1936. The Payment of Bonus Act, 1965. The Equal Remuneration Act, 1976. The Payment of Gratuity Act, 1972. The Employees' Provident Fund and Miscellaneous Provisions Act, 1952; Wage Structure in different Sectors – in Central Government, in State Government, in PSEs and in Nationalised Banks; Wage Boards - structure, scope and functions – Pay Commissions – Compensation Committees; Compensating contingent employees.

#### **UNIT IV: Employee Benefits and Services**

Legally required and Discretionary employee benefits; Employee services; Designing, Planning and Administration of benefits program; Totally integrated employee benefits; Fringe Benefits and Voluntary Retirement Schemes.

#### **UNIT V: Executive and International Compensation**

Nature and management of Executive compensation; Executive Compensation theories – Agency theory, tournament theory and Social comparison theory. International Compensation - Design and Approaches to International remuneration with special reference to expatriates and the remuneration of third country nationals. Challenges of international compensation

#### **Essential Readings:**

1. Joseph J. Martocchio- Strategic Compensation- 3rd Edition
2. Dr. Pradeep Kumar Das, Dr. Madan Chettri and Ms. Roshni Tamang., Compensation Management, Lulu Publication, 2021, 1st Edition.
3. Tapomoy Deb, Compensation Management – Texts and Cases, Excel Books, 2009, 1st Edition.
4. S. K. Bhatia, New Compensation Management in Changing Environment – Managerial Remuneration and Wage & Salary Administration, A Professional Manual, Deep and Deep Publications Pvt. Ltd., 2009, 3rd Edition.
5. R.C. Sharma and Sulabh Sharma, Compensation Management, Sage Publications, 2019,
6. Dr.Kanchan Bhatia,” Compensation Management”, HPH
7. Peter T.Chingos, “Paying for Performance: A guide to Compensation Management, 2nd edition, Wiley Publications.

#### **Suggested Readings:**

1. Milkovich, Newman & Gerhart, Compensation, Tata McGraw Hill, 2011, 10th Edition
2. Richard I. Henderson, Compensation Management in a Knowledge-Based World, Pearson Education, 2009, 10th Edition.
3. B D Singh, Compensation and Reward Management, 2008, Excel Books.
4. Dr. Vinay Ojha, “Compensation and Reward Management”, 2019, 7th Edition.
5. Luis R. Gomez-Mejia & Steve Werner, Global compensation - Foundations and perspectives Routledge, 2008.
6. Mousmi S. Bhattacharya & Nilanjan Sengupta, Compensation Management, Excel Books, 2009, 1st Edition.
7. Dipak Kumar Bhattacharya Compensation Management- Oxford University Press, 2015

Course-Code	Course Title				Core/ Elective	
<b>P24MB307</b>	<b>DATA BASE MANAGEMENT SYSTEMS (SYSTEMS)</b>				<b>Elective-I</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

#### **Course Objectives:**

1. The objective of the course is to present an introduction to database management systems, with an emphasis on how to organize, maintain and retrieve - efficiently, and effectively - information from a DBMS.
2. To explain basic database concepts, applications, data models, schemas and instances.
3. Describe the basics of SQL and construct queries using SQL.
4. Use the basics of SQL and construct queries using SQL in database creation and interaction.
5. Analyze and Select storage and recovery techniques of database system.

#### **Course Outcomes:**

1. Students can apply the basic concepts of Database Systems and Applications
2. Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
3. Students can get to facilitate students in Database design and also to familiarize issues of concurrency control and transaction management in DBMS

#### **Unit-1: Database System Architecture and Data Models:**

Data Abstraction, Data Independence, Data Definition Language (DDL), Data Manipulation Language (DML), Entity-relationship model, network model, relational and object oriented data models, integrity constraints, data manipulation operations.

#### **Unit-2: Relational Query Languages and Relational Database Design:**

Relational algebra, Tuple and domain relational calculus, SQL3, DDL and DML constructs, Open source and Commercial DBMS - MYSQL, ORACLE, DB2, SQL server.

#### **Unit-3: Query Processing and Optimization and Storage Strategies:**

Evaluation of relational algebra expressions, Query equivalence, Join strategies, Query optimization algorithms, Indices, B-trees, hashing.

#### **Unit-4: Transaction Processing and Database Security:**

Concurrency control, ACID property, Serializability of scheduling, Locking and timestamp based schedulers, Multi-version and optimistic Concurrency Control schemes, Database recovery Authentication, Authorization and access control.

#### **Unit-5: SQL and PL/SQL Concepts:**

Basics of SQL, DDL,DML,DCL, structure – creation, alteration, defining constraints – Primary key, foreign key, unique, not null, check, IN operator, aggregate functions, Built-in functions –numeric, date, string functions, set operations, sub-queries, correlated sub-queries, join, Exist, Any, All , view and its types., transaction control commands

**Suggested Books:**

1. "Database System Concepts", 6th Edition by Abraham Silberschatz, Henry F. Korth, S. Sudarshan, McGraw-Hill.
2. "Fundamentals of Database Systems", 7th Edition by R. Elmasri and S. Navathe, Pearson
3. "An introduction to Database Systems", C J Date, Pearson.
4. "Modern Database Management", Hoffer, Ramesh, Topi, Pearson.
5. "Principles of Database and Knowledge – Base Systems", Vol 1 by J. D. Ullman, Computer Science Press.



P24MB308	INTRODUCTION TO BUSINESS ANALYTICS (BUSINESS ANALYTICS)				Elective	
Prerequisites	Contact Hour per Week			CIE	SEE	Elective-I
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:** **Course Objective :** The objective of the course is

- 1.To provide an understanding of Basic concepts of Business Analytics
- 2.Descriptive, Predictive and Prescriptive Analytics a
- 3.An overview of Programming using R.

**Course Outcomes:** After Completion of the Course, Students will be able to:

To recognize, understand and apply the language, theory and models of the field of business analytics.

Foster an ability to critically analyse, synthesize and solve complex unstructured business problems.

To Analyze Predictive Analytics using Trend Lines and Data Mining Approach

To examine Prescriptive Analytics using Linear and Non Linear Programming

To Study Programming using R to Control and Manage Data

### **Unit I: Introduction to Business Analytics**

Definition of Business Analytics, Categories of Business Analytical methods and models, Business Analytics in practice, Big Data - Overview of using Data, Types of Data.

### **Unit II: Descriptive Analytics**

Over view of Description Statistics (Central Tendency, Variability), Data Visualization-Definition, Visualization Techniques – Tables, Cross Tabulations, charts, Data Dashboards using Ms-Excel or SPSS.

### **Unit III: Predictive Analytics**

Trend Lines, Regression Analysis –Linear & Multiple, Forecasting Techniques, Data Mining -Definition, Approaches in Data Mining- Data Exploration & Reduction, Classification, Association, Cause Effect Modelling.

### **Unit IV: Prescriptive Analytics**

Overview of Linear Optimization, Non Linear Programming Integer Optimization, Cutting Plane algorithm and other methods, Decision Analysis – Risk and uncertainty methods.

### **Unit V: Programming Using R.**

R Environment, R packages, Reading and Writing data in R, R functions, Control Statements, Frames and Subsets, Managing and Manipulating data in R.

**Suggested Readings:**

1. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams- **Essentials of Business Analytics**, Cengage Learning.
2. James Evans, **Business Analytics**, Pearson, Second Edition, 2017.
3. Albright Winston, **Business Analytics- Data Analysis-Data Analysis and Decision Making**, Cengage Learning, Reprint 2016.
4. Sahil Raj, **Business Analytics**, Cengage Learning.

Course-Code	Course Title				Core/ Elective	
<b>P24MB309</b>	<b>BUSINESS FEASIBILITY AND ANALYSIS (ENTREPRENEURSHIP)</b>				<b>Elective-I</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

1. To familiarize the students with the mechanics of appraisal and evaluation of projects.
2. To understand the concept of SCBA
3. Learn to write a Business Plan

**Course Outcomes:**

1. Forecast of cash flows
2. Preparation of Business plan with all inputs
3. Application of network techniques of project management

**UNIT-I: Introduction:**

a) Concept of Project: Characteristics and importance of Projects – Project development cycle - Types of projects - Risk-return trade off. (b) Identification of investment opportunities: Sources of new project ideas - Preliminary screening of projects. (c) Feasibility Studies and Reports: Broad aspects of appraisal – Market feasibility, Technical feasibility, Operational feasibility, financial feasibility.

**UNIT-II: Feasibility Appraisal:**

a) Market Appraisal: Market and demand analysis - Market survey - Demand forecasting - Sales projections. (b) Technical Appraisal: Issues involved in technical feasibility – Production technology - Materials and inputs - Plant capacity - Site selection – Plant layout – Site preparation - Civil works and structures - Details of machines and equipment- Specification and cost determination. (c) Operational Appraisal: Heads of cost - Estimates of cost of production - Break even point - Economics of working - Profitability.

**UNIT-III: Business Plan:**

Financial Appraisal: (a) Cost of project and means of financing (b) Estimation of cash inflows - Basic principles of estimation (c) Risk analysis in capital budgeting, certainty equivalent, standard deviation, sensitivity analysis etc. (d) Writing a Business Plan

**UNIT-IV: Project Financing & SCBA:**

a) Social Cost Benefit Analysis: Rationale of SCBA - Approaches to SCBA in India. (b) Financing Projects: Appraisal procedures and practices of financial institutions - Financial statements required for project financing

**UNIT-V: PERT & CPM:**

a) Project Implementation: Network techniques - Critical path - Project Crashing - Time and cost over runs. PERT and CPM - Project management - Forms of organization – Project planning and control.

**Suggested Readings:**

1. Project Appraisal: A Third World View Point: UNID Publications - 1996.
2. Project Evaluation and Management: M.K.Singh.
3. Projects, Preparation, Appraisal and Implementation: Prasanna Chandra, TMH, New Delhi – 1998.
4. Project Financing: H.P.S. Pahwa.
5. Clifford. F. Gray, Erik. W. Larson: Project Management, the Managerial Emphasis, McGraw Hill - 2000.
6. Mike McKeever, How to Write a Business Plan

Course-Code	Course Title	Core/ Elective
P24MB310	ESSENTIALS OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT ( SUPPLYCHAIN )	Elective-I

Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-			

**Course Objectives:**

1. To understand the strategic role of logistics management
2. To study the important modes of logistics operations
3. To Know supply chain techniques in an international perspective.

**Course Outcomes:**

1. Able to Understand the strategic role of Logistics and Supply chain Management in the cost reduction and offering improved service to the customers.
2. Gain Knowledge of Basic of Transportation and its Functionalities
3. Combining the traditional physical distribution activity with modern Information Technology to have sustainable competitive advantage to the organization Globally
4. To Know Packing and Packaging Functions
5. To have knowledge of Export Logistics

**Unit 1:**

Logistics management and Supply Chain management - Definition, Evolution, Importance. The concepts of logistics and Supply Chain Management, Key Drivers of Supply Chain Management and Logistics relationships.

**Unit 2:**

Essentials of Transportation, Transportation Functionality and Principles; Multimodal Transport: Modal Characteristics; Modal Comparisons; International Air Cargo Transport; Coastal and Ocean transportation, Characteristics of shipping transport- Types of Ships.

**Unit 3:**

Containerization: Genesis, Concept, Classification, Benefits and Constraints; Inland Container Depot (ICD): Roles and Functions, CFS, Export Clearance at ICD; CONCOR; ICDs under CONCOR;

**Unit 4:**

Packing and Packaging: Meaning, Functions and Essentials of Packing and Packaging, Packing for Storage- Overseas Shipment- Inland-Transportation- Product content Protection, Packaging Types: Primary, Secondary and Tertiary- Requirements of Consumer Packaging, Channel Member Packaging and Transport Packaging - Shrink packaging –Identification codes, bar codes, and electronic data interchange (EDI)- Universal Product Code- GS1 Standards- package labels- Symbols used on packages and labels.

**Unit 5:**

Special Aspects of Export logistics: Picking, Packing, Vessel Booking [Less-than Container Load (LCL) / Full Container Load (FCL)], Customs, Documentation, Shipment, Delivery to distribution centers, distributors and lastly the retail outlets- Import Logistics: Documents Collection- Valuing- Bonded Warehousing- Customs Formalities- Clearing ,Distribution to Units.

**Suggested Readings:**

1. Bowersox, Closs, Cooper, Supply Chain Logistics Management, McGraw Hill.
2. Burt, Dobbler, Starling, World Class Supply Management, TMH.
3. Donald J Bowersox, David J Closs, Logistical Management, TMH
4. Pierre David, "International Logistics", Biztantra.
5. Sunil Chopra, Peter Meindl, Supply Chain Management ,Pearson Education, India.

Course-Code		Course Title					Core/ Elective	
P24MB311		HEALTH CARE PLANNING AND OPERATIONS MANAGEMENT (HEALTHCARE)					Elective-I	
	Prerequisites	Contact Hour per Week			CIE	SEE	Credit	
		L	T	P				
		4	1	-	40	60	5	

**Course Objectives:**

1. To familiarize the students with the planning and execution of health Care delivery system
2. To provide an overview of health services vis.-a-vis. hospital design, planning and operational aspects of hospital organization.
3. To familiarize the students with basic concepts of hospital operations and various tools of productivity

**Course Outcomes:**

6. Able to Understand Evolution of Hospitals
7. Gain Knowledge of Architectural Planning
8. To know Healthcare Functioning
9. To Know Cost Concepts and Cost Analysis – Concepts of Health Care Costs
10. To have knowledge of Nature and characteristics of Health care markets – Perfect Vs Imperfect Markets

**Unit– I: Management of Hospitals**

Evolution of Hospitals - History of Hospitals - Changing Concepts of Hospitals - Types and Classification of Hospitals - Clean & Green Hospitals. Introduction to Operations Management: Meaning and Scope – Role and Decisions – Difference of Hospital Operations from Other Service and Manufacturing Organizations. Meaning and Rationale of Hospital Administration - Role of Hospital Administrator - Hospital as a System - The Changing Role of Hospitals in Health Care

**Unit II: Hospital Architectural Planning and Designing**

Conception of the Idea – Community Wide Planning – Area Wide Planning – Determining the Size and Kind of Services to be provided – Guiding Principles in planning hospital facilities and services, Selection of Site – Planning of hospital building.

Principles and planning parameters – Scope of the Project, role of hospital consultant and Architect – Functional Development – Conceptual Designing, Working Drawings, Tender & Bid documents, legal formalities – Environmental Regulations and Accreditation Standards.

Equipment Installation–Commissioning–Shakedown Period– Bottlenecks–Scope for Future Expansion

**Unit III: Hospital Functional Planning**

Flow and area analysis – inter departmental relations– departmental and room functions– standard room– bed distribution, space requirements –developing a move sequence.

**Planning for Medical Specialties:** An over view of – Oncology –General Medicine – Cardio – Thoracic , Gastroenterology – Urology – Nephrology – Radiology – Psychiatry – Endocrinology – Neurology – Ophthalmology – Dental Services – Maternity Services – Accident and Emergency Services etc. – Out Patients and Day – Care Services – Inpatient Nursing Units – Intensive Care Units – Operation Theaters.

**Unit IV: Planning for Supportive Services and Outsourcing**

Standards for designing hospital facilities – mechanical, electrical centralized medical gas system – safety, security, fire hazard, infection control, disaster management considerations in planning.  
**Planning and designing supportive services:** An over view of– Diagnostic Services, Clinical Laboratories, Radiological Services– Medical Records– Front office– billing– staffing– housekeeping– transportation– Ambulance – Engineering & maintenance– laundry– dietary services– Administrative– services such as HRD, Accounts, Marketing department. Space requirements – Equipment planning. Concept of out-sourcing, need, advantages and disadvantages - Areas of out sourcing – Structure of Out sourcing Projects – managing innovation for value creation and better satisfaction of Patients and attendants

### **Unit - V: Health Care Operations Management**

**Operations Management in Hospitals:** Hospital Process: Input, Process, and Output – OM Goals in Hospitals - Parts of OM (Gap Analysis, Process Improvement, and Implementation) – Challenges in OM of Hospitals – How to make OM Effective in Hospitals / Operations Strategy.

**Productivity:** Concepts – Scope – Objectives - Factors – Types - Techniques of Productivity Measurement – How to Improve Productivity in Hospitals.

**Work Study & Value Analysis:** Work Study: Meaning; Purpose; Techniques / Methods; Importance of Work Measurement in Hospitals – Value Analysis: Meaning; Objectives; Steps; Techniques; Application of VA in Hospitals.

### **Suggested Readings:**

11. A Syed Amin Tabish : Hospital and Health services administration, principles and practice, oxford university press, New Delhi, 2001. McGraw Hill, New Delhi, 1998
12. Koontz Harold, Heinz Weihrich : Essentials of management, Mc Graw Hill International, New Delhi, 2004.
13. L.M.Prasad : Principles and practice of Management, 6th edition, Sultan Chand Publisher, New Delhi, 2001.
14. Elaime L. : Management in Health care, Mc Millan publishers.
15. Manisha Saxena : Hospital Management, Volume – I, CBS Publishers and Distributers, 2013, New Delhi Kundurs G.D , Facilities Planning and Arrangement in Health Care Prison Books Pvt. Ltd.Bangalore, 2004
16. Joshi DC, Mamta Joshi, Hospital Administration, (Jaypee Brothers Medical Publishers P. Ltd., New Delhi)
17. Syed Amin Tabish, Hospital and Health Services Administration Principles and Practice (Oxford University Press, New Delhi) References
18. Sakharkar B.M, Principles of Hospital Administration and Planning (Jaypee Brothers Medical Publishers Pvt. Ltd., New Delhi)
19. Kundurs G.D, Designing for Total Quality in Health Care (Prism Books Pvt. Ltd., Bangalore) 546 Textbooks
20. Shakti Gupta, Sunil Kant, Chandra Sekhar, Sidharth , Modern Trends in Planning and Design of Hospitals, Jaypee Brothers, New Delhi.



Course-Code	Course Title				Core/ Elective	
<b>P24MB312</b>	<b>FINANCIAL SYSTEM AND SERVICES (FINANCE)</b>				<b>Elective-II</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objective:**

- 1) To create awareness about Financial System and Financial services in India.
- 2) To learn about the role of financial institutions in India
- 3) To understand the importance of Venture Capital

**Course Outcomes:**

- 1) To explain the importance ,functions of financial system and financial services
- 2) To understand the concept of merchant banking and its functions
- 3) To learn the venture capital financing modes used to raise finance
- 4) To understand factoring ,bill discounting and credit rating services needed for businesses

**Unit I : The Financial System In India**

Functions of the Financial System – structure of Indian financial system – Indian Money market – composition of money markets – money market instruments . Indian Capital Market – Importance of Capital Market . Classification of Indian capital market – Primary Market and Secondary Market - Products and Participants – Regulation of capital market – Recent trends in Indian capital Market.

**Financial Services:** Meaning, scope, Features and Importance of Financial Services. Classification of Financial service Industry. Financial Innovation - Causes for Financial Innovation. New Financial products and services – Fintech services – types , growth and . Present scenario and Challenges.

**Unit-II: Financial Institutions:**

Evolutions of banking in India - Functions of RBI and regulatory framework – Commercial banking in India – Role of private sector banks and public sector banks – changing role of commercial bank in India . NBFCs – Role and functions. Financial institutions in India – NABARD, SIDBI, EXIM Bank and NHB.

**Unit III :Introduction to Merchant Banking**

Concept and Evolution of Merchant Banking in India- Functions of a Merchant Banker - Regulatory Framework for Merchant Bankers in India - SEBI guidelines

**Issue Management – Process and Underwriting** -Public issue management – functions – categories of securities issue – role of issue manager. Obligations Relating to issues-Pricing of Issue- Underwriting

**Unit-4 : Venture Capital Financing:**

Origin-concept of venture capital financing-The Paradigm shift in venture capital-Features-Importance of VCF- Stages of VCF–Factors affecting VCF-Selection procedure of venture capitalists-Venture Capital Industry in India-Venture capital providers in India-

SEBI(venture capital fund) Regulations- Indian venture capital scenario- Evaluation of VCF –Conventional valuation-First Chicago Method- Revenue Multiplier Method- -Role of TDICI in building venture capital fund-Exit strategies of venture capitalists- Issues-Challenges & Suggestions for the growth of venture capital funds in India

### **Unit V Factoring and Credit Rating :**

**Factoring:** Factoring concept, process and forms. Functions of a factor. cost of factoring, Legal aspects of factoring, Factoring scenario in India. Bill discounting Legal aspects of bill discounting. Difference between and Bill discounting and factoring.

**Credit rating:** Meaning and Process of Credit rating of financial instruments. Rating methodology. Introduction to various Rating Agencies. Rating Symbols of different companies.

### **Suggested books:**

1. E.Gordon and K.Natarajan , 2019, Financial Markets, Instruments and Financial Services, 11th edition, Himalaya Publication House , Mumbai.
2. Clifford Gomez , 2015, Financial Markets, Instruments and Financial Services, PHI learning Private Limited, Delhi.
3. L. M. Bhole: Financial Institutions and Markets, TMH, 2012.
4. M. Y. Khan: Financial Services, TMH, 2012.
5. Dr. Vasanth Desai, 2013, Financial Markets and Financial Services, Himalaya Publishing House, Mumbai.
6. M Y Khan, “Financial Services”, TMH, 5th edition
7. Shashi K. Gupta, Nisha Aggarwal and Neeti Gupta, “ Financial Services”, Kalyani Publishers, 6th Revised Edition
8. Bhatia, B.S., and Gupta G.S., Management of Financial Services, Deep and Deep, New Delhi.
9. Ghosh, P.K., and Gupta, G.S., Fundamentals of Lease Financing, Vision Publishers, New Delhi.
10. Gupta, S.K., and Nisha Aggarwal, Financial Services, Kalyani Publishers, New Delhi.
11. Nalini Prava Tripathy, Financial Services, Prentice Hall of India Pvt. Ltd., New Delhi.
12. Guruswamy, S., Financial Services and Markets, Thomson Learning, Singapore.
13. Anbarasu Joseph D, Boominathan VK, Mohan Man, Gnanaraj G, “Financial Services”, S.Chand Publications
14. V.A.Avadhani, “ Financial Services in India”, HPH

Course-Code	Course Title				Core/ Elective	
<b>P24MB313</b>	<b>ADVERTISING AND BRAND MANAGEMENT (MARKETING)</b>				<b>Elective-II</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

The objectives of this course are;

1. To sensitize students on various dimensions of the promotion mix
2. To help gain an understanding of the role of advertising in marketing
3. To explore the various elements relating to an effective advertising strategy
4. To introduce the concept of organized retailing
5. To help understand the various functions & roles of retailing in India

### Course Outcomes:

After reading this course you should be able to;

1. Understand the importance of advertising in the marketing mix
2. Establish the importance of creativity in an ad campaign
3. Determine the comparative importance of organized retailing sector vis-a- vis unorganized sector
4. Compare the functions and performance of organized retail sector to others
5. Determine the role of other functional areas of marketing as key drivers to the retail sector

### Unit-I:

Advertising – Role in promotion mix, Objectives of advertising, Creativity in advertising, Ad-copy, Creative strategy & process – Implementation & evaluation, DAGMAR, Types of ad appeals, Ad budget – Establishment & allocation, Budgeting approaches

### Unit- II:

Media planning, Deciding media objectives – Media strategy, Media mix, Ad reach Vs. Frequency, Evaluation of media, Internet and interactive media, Role of technology in media, Media planning, Role of Technology in media planning, Measuring ad effectiveness, Copy testing

### Unit – III:

Introduction to organized retailing, Trends in retail, Types of retail format, Behaviour of organized retail markets, Objectives and function of retailing, retailing in India

### Unit- IV:

Retailing in rural India, Geographic spread of Indian retail sector, Organized & unorganized, Types of retail formats, Retailing in services sector, International retailing, Cultural challenges in International retail, Role of MNC's

**Unit – V**

CRM in retail, Retail pricing strategies – Key drivers, Merchandising management, Store management, visual merchandising – Logistics management, Developing retail CRM programmes, Legal & ethical concerns in organized retail

**Suggested Readings:**

1. Aaker, David A, Advertising Management 4th edition, PHI
2. Bajaj Tuli Srinivatsava , Retail Management, 3rd Edition, Oxford Publication

**Suggested Books**

1. Belch, George E and Blech, Michael A, Advertising and promotion, Tata McGraw Hill,
2. Ogilvy David, Ogilvy on Advertising , Longeman, London
3. Chunawalla, S.A., Advertising , Sales and Promotion Management Himalaya Publishing House.
4. Mohan, Mahendra, Advertising Management, Tata Mcgraw Hill
5. Levy & Weitz, Retailing Management, Tata McGraw Hill
6. Bary Berman & Evans, Retail Management- A Strategic Approach, Pearson education
7. Akileshwar Pathak, Legal Aspects of Business, Tata McGraw Hill
8. Nicholas Alexander, International Retailing, Blackwell Basin Publishers Ltd
9. Dr.Harjith Singh, “Retail Management: A Global Perspective, Texts and Cases” S.Chand
10. S.A.Chanuwalla and KC.Sethia, “ Foundations of Advertising- Theory and Practice”, HPH

Course-Code	Course Title				Core/ Elective	
P24MB314	<b>INDUSTRIAL RELATIONS AND LABOUR CODE (HUMAN RESOURCES)</b>				<b>Elective-II</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objective:**

- 1) This course intends to make the management students aware of the various actors as part of the industrial relations such as the state, ILO, trade unions and so on.
- 2) The course focuses on the managerial perspectives needed to understand industrial relations issues, labour laws, issues and implications.
- 3) Critically analyze reforms in labour legislation over labour codes.

**Course Outcomes:** By the end of the course, the students would:

1. Gain a comprehensive understanding of Industrial relations in the wake of economic reforms.
2. Gain knowledge of industrial disputes and a framework for analysis and resolution of such disputes.
3. Understand the role of trade unions and generate alternate decision making.
4. Appreciate Labour laws related to labour welfare, social security and other protective laws towards women labour, migrant labour and contract labour

**Unit – I: INDUSTRIAL RELATIONS**

Industrial relations- Meaning, Concept and objectives; Changing roles of actors - Workers, Management & Government in industrial relations; Approaches to Industrial Relations - System approach (Dunlop's), Social Action Approach, input – output Approach; Conditions for good Industrial Relations, Economic Reforms and status of IR in India, Industrial Relations code 2020.

**Unit – II: INDUSTRIAL DISPUTES AND RESOLUTION**

Management of Discipline - The Industrial Employment (*Standing Orders*) Act, 1946; Industrial Disputes - Meaning, nature, causes, extent and methods of settling industrial disputes; Industrial Disputes Act, 1947; Alternate Dispute Resolution Strategies - Collective Bargaining, Negotiation, Conciliation/Mediation, Adjudication and Voluntary Arbitration; Management of Industrial Cooperation - Labour Management co-operation, Workers' Participation in Management and Industrial Democracy.

**Unit – III: TRADE UNIONISM: HISTORICAL & LEGAL FRAMEWORK**

Trade Unionism - Objectives and Functions of Trade Unions; Trade Union Movement in India - History and growth of Trade Union in India – Trade Unions in Pre and Post - independence Period; Trade Unions Act, 1926; Challenges of Trade Unions in India, Changing industrial environment and Role Trade Unions in Globalized economy.

#### **Unit – IV: LABOR LEGISLATION IN INDIA (Part-1)**

Labour Legislation - History and growth of labour legislation in India; International Labour Organization (ILO) – Activities of ILO, Impact of I.L.O. on Indian Labour standards; Labour Welfare and Social Security – Meaning, Concept and Principles of Labour Welfare, Approaches to Labour Welfare, Indian Constitution & Labour Welfare and National Commission on Labour recommendations on Labour Welfare; Meaning, Evolution, institutional growth and need of social security and concept of employer's Liability; Salient features of Welfare and security legislations for organized and unorganized workers in India, Code on Social Security, 2020;

#### **Unit – V: LABOR LEGISLATION IN INDIA (Part-2)**

Women and Labour law - The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, Supreme Court verdict in Vishaka Versus State of Rajasthan case; Protective Labour Legislation in India – Inter State Migrant Workmen (Regulation of Employment & conditions of Service) Act, 1979; Salient features of Occupational safety, Health and Working Conditions code, 2020; Contract Labour (Regulation & Abolition) Act, 1970; Labour Law reforms initiative in India – The Code on Wages, 2019; The Occupational Safety, Health and Working Conditions Code, The Code on Social Security, The Industrial Relations Code.

#### **Essential Readings**

1. New Labour and Industrial Laws, 2020, Taxmann Publications, New, Delhi.
2. Mishra, SN, Labour and Industrial Laws, 2018, Central Law Publications.
3. Ghosh, P and Nandan, S, 2015, Industrial relations and Labour Laws, Mc Graw Hill Publishers.
4. Goswami, V.G., 2015, Labour and Industrial Laws, Allahabad, Central Law Agency
5. Srivastava, SC, 2012, Industrial Relations and Labour Laws, Vikas Publications, New Delhi,
6. C.S Venkata Ratnam, “Industrial Relations”, 2009, Oxford University Press, New Delhi.
7. S.C.Srivatsava, “Industrial Relations and Labour Laws, 8e, S.Chand Publications
8. Sharan, “ Industrial Relations and Labour Laws at Glance, Shroff Publications

#### **Suggested Readings**

1. Sukomal Sen, 1997, “Working Class in India, History of Emergence and Movement (1830-1990)”, National Book Agency, Kolkata.
2. Srivastava, S.C, “Industrial Relations and Labour Laws”, 5th Rev., Vikas Publication House, New Delhi, 2006
3. Singh B.D, 2008, “Industrial relations and labor laws”, Excel books.
4. P.K.Padhi, 2009, “Labour and Industrial Laws”, PHI Learning Pvt. Ltd.

Course-Code	Course Title					Core/ Elective
P24MB315	BUSINESS ANALYTICS (SYSTEM)					Elective-II
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

1. The objective is to provide knowledge of data science
2. To provide basic statistical tools
3. State the importance of data in current business scenario
4. To develop contingent business models for better analysis

**Course Outcomes:**

1. Students can use data as tool for business analysis
2. The basic statistics provides a road map to learners
3. Micro metrics makes the students to identify data gaps
4. The business models may help in better decision making

**Unit – I: Introduction to Business Analytics:**

Definition of Business Analytics, Categories of Business Analytical methods and models, Business Analytics in practice, Big Data - Overview of using Data, Types of Data- Business decision modeling.

**Unit – II: Descriptive Analytics:**

Overview of Description Statistics (Central Tendency, Variability), Data Visualization - Definition, Visualization Techniques – Tables, Cross Tabulations, charts, Data Dashboards using Advanced Ms-Excel or SPSS.

**Unit – III: Predictive Analytics:**

Trend Lines, Regression Analysis – Linear & Multiple, Predictive modeling, forecasting Techniques, Data Mining - Definition, Approaches in Data Mining- Data Exploration & Reduction, Data mining and business intelligence, Data mining for business Classification, Association, Cause Effect Modeling.

**Unit – IV: Prescriptive Analytics:**

Overview of Linear Optimization, Non Linear Programming Integer Optimization, Cutting Plane algorithm and other methods, Decision Analysis – Risk and uncertainty methods - Text analytics Web analytics.

**Unit – V: Programming Using R:**

R Environment, R packages, Reading and Writing data in R, R functions, Control Statements, Frames and Subsets, Managing and Manipulating data in R.

**Suggested Books:**

1. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams - **Essentials of Business Analytics**, Cengage Learning.
2. James Evans, **Business Analytics**, Pearson, Second Edition, 2017.
3. Albright Winston, **Business Analytics - Data Analysis - Data Analysis and Decision Making**, Cengage Learning, Reprint 2016.
4. Sahil Raj, **Business Analytics**, Cengage Learning.
5. Jank Wolfgang, “Business Analytics for Managers”, Springer
6. Prema Alla, Introduction to Data Science Using R, BS Publications
7. Sharaff Aakanksha, Data Science and Its Applications, Taylor & Francis



Course	Course-Code	Course Title				Core/Elective	
P24	IB316	TEXT,WEB AND SOCIAL MEDIA ANALYTICS (BUSINESS ANALYTICS)				Elective-II	
Prere	quisites	Contact Hour per Week			CIE	SEE	Credit
		L	T	P			
		4	1	-	40	60	5
Course	<b>Objectives:</b> The Objectives of the Course are: To provide an overview of common text mining and social media data analytic activities. To understand the complexities of processing text and network data from different data sources. To enable students to solve complex real-world problems for sentiment analysis and Recommendations systems.						
Course	<b>Outcomes:</b> After Completion of the Course, Students will be able to: 1. Interpret the terminologies, metaphors and perspectives of social media analytics. 2. Apply a wide range of classification, clustering, estimation and prediction algorithms on Textual data. 3. Perform social network analysis to identify important social actors, subgroups and network properties in social media sites. 4. Apply state of the art web mining tools and libraries on realistic data sets as a basis for business decisions and applications. 5. Provide solutions to the emerging problems with social media such as behavior analytics and Recommendations systems. 6. Design new solutions to opinion extraction, sentiment classification and data summarization problems.						
	<b>Unit – I:</b> <b>Introduction to Text Mining and Mining Textual Data</b> Text Representation- <b>tokenization</b> , stemming, stop words, TF-IDF, Feature Vector Representation, NER, N-gram modeling. Text Clustering, Text Classification, Topic Modeling-LDA, HDP						
	<b>Unit – II:</b> <b>Introduction to Web-Mining and Web Usage Web content Mining</b> Inverted indices and Boolean queries. PLSI, Query optimization, pageranking.						
	<b>Unit – III:</b> <b>Introduction to Social Media Network</b> Essentials of Social graphs, Social Networks, Models, Information Diffusion in Social Media.						
	<b>Unit – IV:</b> <b>Mining Social Media and Sentimental Mining</b> Behavioral Analytics, Influence and Homophily, Recommendation in Social Media Sentiment Classification, feature based opinion mining, comparative sentence and relational mining, Opinions spam.						
	<b>Unit – V:</b> <b>Recent Trends</b> Recent Trends in Text, Web and Social Media Analytics						

### **Suggested Books:**

1. BingLiu, "WebDataMining-ExploringHyperlinks,Contents,andUsageData", Springer,Second Edition, 2011.
2. RezaZafarani,MohammadAliAbbasiandHuanLiu,"SocialMediaMining-AnIntroduction", CambridgeUniversity Press, 2014.
3. BingLiu,"SentimentAnalysisandOpinionMining",Morgan&ClaypoolPublishers,2012.
- 4.NitinIndurkha,FredJDamerau,"HandbookofNaturalLanguageProcess",2ndEdition,CRCPress, 2010.
- 5.MatthewA.Russell,"Miningthesocialweb",2ndedition-O'ReillyMedia,2013.

Course-Code	Course Title				Core/Elective	
P24MB317	<b>INNOVATION AND DESIGN THINKING ( ENTREPRENEURSHIP)</b>				<b>Elective-II</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

#### **Course Objectives:**

- 1) To understand the importance and process of Innovation.
- 2) To delve deep into the concept of design thinking and its practical application in a business context.
- 3) By the end of these units, managers should be able to effectively utilize design thinking to identify problems, generate creative solutions, and implement impactful business innovations.

#### **Course Outcomes:**

- 1) To inculcate the concepts of creative thinking, design thinking and innovation.
- 2) Develop the students as a good designer by imparting creativity and problem-solving ability
- 3) Implement creative and design thinking to come up with an effective innovation.
- 4) Being able to identify problems and apply design thinking to come up with solutions.
- 5) Use design thinking to develop innovative products that bring business impact.

**Unit 1: Introduction to Innovation:** Meaning and differences innovation and creativity, Characteristics, Importance, Principles of Innovation, Process of Innovation, Types of innovation, strategic advantages of innovation, innovation adoption and diffusion model.

**Unit 2: Innovation in management:** Macroscopic view of innovation, approaches to innovation, assumptions and barriers in innovation, push and pull innovation, TRIZ Theory, SCAMPER Technique, SWOT analysis, organizational aspects of innovation, success factors in innovation management.

#### **Unit 3: Fundamentals of Design Thinking –**

New Product Development: New product life cycle, linking engineering, technology and management for innovation, innovation platform, industrial design concepts for a product.

Introduction to design thinking: principles, stages, and key methodologies

Emphasis on the human-centered approach to design thinking

The importance of empathy in understanding customer needs and experiences

Techniques to define problems in a user-centric manner

#### **Unit 4: Ideation, Prototyping, and Testing**

Understanding the ideation phase: Techniques to stimulate creativity and brainstorm innovative solutions

Introduction to prototyping: Principles, methodologies, and hands-on exercises

The role of testing in design thinking: Techniques to test prototypes and validate ideas effectively Interpreting feedback and refining the solution: Iteration process in design thinking

Case studies demonstrating successful ideation, prototyping, and testing stages

**Unit 5: Implementing Design Thinking for Business Impact** Tools for design thinking, The transition from design thinking to implementation in the business context -How to use design thinking to develop innovative products and services - Strategies for scaling design thinking in an organization and maintaining an innovative culture - Design thinking's role in driving business growth and transformation - design thinking and innovation for sustainability -Case studies of innovative products developed through design thinking highlighting the business impact.

### **Suggested Books**

John.R. Karsnitz, Stephen O'Brien and John P. Hutchinson, "Engineering Design", Cengage learning (International edition), second edition, 2013. Roger Martin, "The Design of Business: Why Design Thinking is the Next Competitive Advantage", Harvard Business Press, 2009. Product Design and Development-Karl T Elrich-sixth edition-McGraw Hill publications Hasso Plattner, Christoph Meinel and Larry Leifer (eds), "Design Thinking: Understand – Improve-apply" Springer, 2001.

1. Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd.
2. Idris Mootee, Design Thinking for Strategic Innovation, John Wiley & Sons Inc
3. Brenda Laurel, Design Research methods and Perspectives, MIT press 2003
4. Yves Pigneur, Alexander Osterwalder, Business model generation: A handbook for visionaries, game changers and challengers, Wiley
5. Don Norman, "The Design of Everyday Things, Basic Books
6. Todd, Zaki Warfel, "Prototyping: A Practitioner's Guide," Rosenfeld Media
7. Eric Ries, "The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses," Currency
8. Michael G Luchs, K Scott Swan, Abbie Griffin, Design Thinking WILEY
9. Thomas Lockwood, Design thinking Integrating Innovation, Customer Experience, and Brand Value, Allworth Press

Course-Code	Course Title				Core/ Elective	
<b>P24MB318</b>	<b>E-PROCUREMENT, STORAGE AND WAREHOUSE MANAGEMENT (SUPPLYCHAIN)</b>				<b>Elective-II</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

1. Provides know-how required to operate an efficient and cost effective warehouse as also the role of inventory in warehouse management.
2. It provides guidance on using the latest technology, reducing inventory, people management, location and design and manage uncertainty risks of customer markets
3. Define the right structure of the supply network and inventory control and warehouse management system

### Course Outcomes:

1. Recognize the principles of warehouse or stores location and layout whilst applying proper stock flow, rotation and recording
2. Appreciate the role of procurement plays in an organization
3. To know Storage Management System and its Functions
4. Understand Warehouse Information System and various technologies associated.
5. To gain knowledge on material handling and warehouse safety

### Unit 1:

Objectives of Procurement System, Principles of Procurement, History of procurement function: from administrative to strategic, value added role, Procurement Cycle, Procurement Planning, Purchasing Mix: Six Rights, Selecting the right supplier, Source of information and process, Supplier appraisal/vendor capability, Bidding process.

### Unit 2:

Introduction to Warehousing Concepts -Role of warehouse-types of warehouse- warehouse location- Need for warehousing- Supply chain trends affecting warehouse –Warehouse functions- Role of warehouse manager-Warehouse process: e-commerce warehouse- Receiving and put away- Warehouse process – pick up preparation-Receiving - Pre-receipt - In- handling - Preparation - offloading - Checking - Cross-docking - Quality control - Put-away - Pick preparation - Pick area layout – Picking strategies and equipment -order picking methods - Warehouse processes- Replenishment to dispatch- Value adding services - Indirect activities - Stock management - Stock or Inventory counting - Perpetual inventory counts - Security - Returns processing – Dispatch.

### Unit 3:

Storage Management system – Storage Inventory Management – Functions of storage & Inventory - Classification of Inventory- Methodsof Controlling Stock Levels- Always Better Control (ABC) Inventorysystem- Warehouse Management Systems (WMS) - choosing a WMS-theprocess

implementation-cloud computing- Warehouse layout-Datacollection-space calculation-aisle width-finding additional space.

#### **Unit 4:**

Storage and Warehousing Information system -Storage Equipment: storage option - shuttle technology - very high bay warehouse - warehouse handling equipment - vertical and horizontal movement - Automated Storage/ Retrieval System (AS/RS)-specialised equipment- Technical advancements-Resourcing a warehouse- warehouse costs- Types of cost - Return on Investment (ROI) - Charging for shared-user warehouse service - Logistics charging methods Warehousing Information System (WIS)-Performance management- outsourcing decisions.

#### **Unit 5:**

Material Handling and Warehouse safety Material handling- Product movement- concept- costs-product load activity—dispatch activity unload activity-control device-impact of the computer technology automatic identification-issues and trends in product transport—Packaging - Pallet - Stretch wraps - Cartons – Labeling- Health and safety- Risk assessment - Layout and design - Fire safety- Slips and trips – Manual handling - Working at height - Vehicles - Forklift trucks – Warehouse equipment legislation. Warehouse safety check list- Warehouse Environment- Energy production - - Product waste - waste disposal - Hazardous waste- Sustainable warehouse Management.

#### **Text Books:**

1. GWYNNE RICHARDS (2014) Warehouse Management: A Complete Guide to Improve Efficiency and Minimizing Cost in the Modern Warehouse. The Chartered Institute of Logistics and Transport, Kegan page limited.
2. DAVID E. MULCHY & JOACHIM SIDON (2008) A Supply Chain Logistics Program for Warehouse Management. Auerbachian Publications

#### **References:**

1. Bowersox, D.J., Closs, D.J., Cooper, M.B., & Bowersox, J.C. (2013). Supply Chain Logistics Management. (4 th ed.), McGraw Hill/Irwin.
2. Arnold, J.R., Chapman, S.N. (2012). The Introduction to Materials Management. (7 thed.), Prentice-Hall. Coyle, J.J., Jr. Langley, C.J., Novack, R.A, & Gibson, B.J. (2013). Managing Supply Chains: A Logistics Approach. (9 th ed.), McGrawHill. Edward, F.(2002).
3. World-Class Warehousing and Material Handling. (International ed.), McGraw-Hill. Muller, M. (2011). Essentials of Inventory Management. (2 nd ed.), American Management Association.

Course-Code	Course Title					Core/ Elective
P24MB319	HEALTH CARE , PATIENT CARE INFORMATION TECHNOLOGY AND SYSTEMS (HEALTHCARE)					Elective-II
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

1. To help students understand the importance and application of Information Technology in Healthcare sector.
2. To study and understand the importance of data resources for organizations
3. Explore the information needs of hospitals and understand the importance of computerization of medical data.

### Course Outcomes:

1. To Know Concept of a Computer – Parts – Hardware Components – Storage Devices – Communication Devices
2. Understand Data Management – Data Processing: Meaning and Importance; Requirements; Methods of Data Processing
3. To know Health Care Information System and its Functions
4. Understand System Analysis, Design and Development: System analysis
5. To gain knowledge on Traditional and Computerized Medical Records – Role of Medical records in Health care Delivery

### Unit - 1: Data and Information Security Standards:

Definition of Data- Data Management – Data Processing: Meaning and Importance; Requirements; Methods of Data Processing – Information: Definition; Characteristics; Uses; Sources of Health Care Information:-Database Management system – Relational database Management system – Relational Database management system – Health care Information standards – Security in Hospital Information Systems: Security; threats and Controls; Data Security; Computer Breach; Security controls – HIPPA.

### Unit - 2: HealthCare Information Systems:

Concept, Need and Importance – Types of HCIS: MIS, HIS, Lab Information System, Radiology Information System – Administrative Information System – Reception/ Front Office – Pharmacy Information System – Materials Management – Financial Accounting – HRM – Training and Development – House Keeping.

Clinical Information Systems – Appointments Scheduling – CPOE –Wards – OT – Clinical Laboratory – Blood Bank – Eye Bank – Eye Bank – Nursing Information System.

### Unit – 3: Digital Health:

Traditional and Computerized Medical Records – Role of Medical records in Health care Delivery – Implementing Wireless Computerized Patient records – General Medical record standards and policies – Legal aspects of medical records – Intellectual Property rights – Electronic Medical documentation and smart cards – Widely used latest statistical and evaluation software – EHR – e- health- Telehealth – Health Monitoring Devices- Computer Assisted coding system

**Unit - 4: Patient Centric Management**

Concept of patient care, Patient-centric management, Organization of hospital departments, Roles of departments & managers in enhancing care,

Patient Identification: Concept of Patient Identification - Significance of Patient Identification System - Patient Identification Parameters - Dimensions of Patient Identification - Patient Identification Errors - Drivers for Reducing Patient Identification Errors.

**Unit – 5: Challenges in Patient Care Management**

PCM Challenges in Health Care Industry: Economic Challenges; IT Related Challenges; and Financial Challenges - Handling Billing Issues - Medico Legal Cases – Role of Feedback in PCM.

Latest Trends in PCM: Holistic Medicine: Concept, Principles, Components - Integrated Patient-Care Management Systems - Technology Acceleration and Digitalization.

**Suggested Readings:**

1. EridMuford, Effective Systems design and requirements analysis, Ms Graw Hill 1995.
2. Sadagopan.S, Management Information System, Prentice Hall India Private Limited, New Delhi.
3. Jerome Kanter, Managing with Information, Prentice Hall – India Private Limited, New Delhi.
4. Rajesh Narang, Data Base Management System, Prentice- Hall India Private Limited, New Delhi.  
3) Kumar A. 2000. Encyclopedia of Hospital Administration & Development: Volume I. AnmolPublications Ltd: New Delhi.
5. Gupta S & Kant S. 1998. Hospital & Health Care Administration: Appraisal and ReferralTreatise. Jaypee: New Delhi
6. Goal S L & Kumar R. 2004. Hospital Core Services: Hospital Administration of the 21<sup>st</sup>Century. Deep Publications Pvt. Ltd: New Delhi
7. Reddy N K S. 2000. Medical Jurisprudence & Toxicology. ALT Publications: Hyderabad
8. Rao M S. 1992. Health & Hospital Administration in India. Deep & DeepPublications: New Delhi



# LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY

## (An Autonomous Institution)

(With effect from the Academic Year 2025-26)- LR24

## Department of Management Studies

### MBA Year-II Semester–IV

S.No.	Course Code	Course Type /Code	Course Title	Scheme of Instructions				Scheme of Examination			Credits
				L	T	P	Contact hours per week	CIE	SEE	Duration in of SEE in Hrs	
Theory Course											
1.	P24MB401	CORE	Business Process Reengineering	4	1	-	5	40	60	3	4
2.	P24MB402	CORE	Logistic and Supply Chain Management	4	1	-	5	40	60	3	4
3.	P24MB403	CORE	Business Intelligence	4	1	-	5	40	60	3	4
Discipline Specific Elective – III											
4.	P24MB404	DSE	Banking and Insurance (Finance)	4	1	-	5	40	60	3	5
	P24MB405		Buyer Behavior (Marketing)	4	1	-					
	P24MB406		Leadership and Change Management (Human Resource)	4	1	-					
	P24MB407		Data Visualization (Systems)	4	1	-					
	P24MB408		Python Programming (Business Analytics)	4	1	-					
	P24MB409		Technology for Entrepreneurs (Entrepreneurship)	4	1	-					
	P24MB410		Distribution Management for GlobalSupply Chain (Supply Chain)	4	1	-					
	P24MB411		Health Care Innovation and Analytics (Health Care)	4	1	-					
Discipline Specific Elective – IV											
5	P24MB412	DSE	International Finance (Finance)	4	1	-	5	40	60	3	5
	P24MB413		Services & Digital Marketing (Marketing)	4	1	-					
	P24MB414		Performance Management (Human Resource)	4	1	-					
	P24MB415		Data Mining for Business (Systems)	4	1	-					
	P24MB416		Introduction to Power BI (Business Analytics)	4	1	-					
	P24MB417		Social Entrepreneurship (Entrepreneurship)	4	1	-					
	P24MB418		Port and Airport Management for Logistics (Supply Chain)	4	1	-					
	P24MB419		Health Care Insurance and Medical Tourism (Health Care)	4	1	-					
Project Work											
6.	P24MB4P1	PROJ	*Project Work	-	-	2	2		50	-	2
7.	P24MB4P2	PROJ	**Comprehensive Viva Voce	-	-	-	-	-	50	-	2
IV SEMESTER CREDITS								600			26
TOTAL CREDITS AT THE END OF IV SEMESTER								2500			104

**L:** Lecture(Hrs/Wk/Sem) **T:** Tutorial (Hrs/Wk/Sem) **P:** Practical

**CIE:** Continuous Internal Evaluation

**SEE:** Semester End Examination

**DSE:** Discipline Specific Elective

**PROJ:** Project work

**Note:**

\*All Students has to continue Project Work Synopsis Dissertation and submit a Final Project Work\*\*\*

\*\*A Comprehensive Viva Voce Examination will be conducted at the end of Fourth Semester\*\*\*\*

9. Each contact hour is a Clock Hour.
10. The duration of the practical class is two hours, however it can be extended wherever necessary, to enable the student to complete the experiment.

<b>1</b>	<b>Total Credits for four Two years</b>	<b>104</b>
<b>2</b>	<b>Total Marks</b>	<b>2500</b>

Course Code	Course Title				Core/Elective	
P24MB401	BUSINESS PROCESS REENGINEERING				Core	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

#### Course Objectives:

1. Providing the learners with contemporary concepts in Business Process Reengineering
2. Enabling the learners to understand various tools and techniques in BPR
3. Understanding the importance of BPR in assisting organizational effectiveness and the related drivers

#### Course Outcomes:

1. Learners will be enabled with holistic perspective of BPR in the contemporary context
2. Learners will be able to understand the current trends and methodology of BPR
3. Learners will be able to understand the dynamics of BPR in Industry 4.0 scenario

#### Unit-I- Introduction to Business Process Reengineering

Historical background and evolution of BPR, Definition and principles of BPR, Importance and benefits of BPR in organizations, introduction to Industry 4.0-A paradigm shift from manufacturing context to services

#### Unit-II - Design thinking and innovation strategies in BPR

Need of Innovation in BPR projects, Applying design thinking to process innovation, Aiming cost reduction with optimization techniques, BPR vs. continuous improvement approaches, Process mapping and modelling techniques

#### Unit-III-Technology and digital transformation

Role of technology in BPR, Technology -An essential imperative, Automation and usage of advanced tools and technology, Industry 4.0-An era of data driven decision making, Dynamic Analysis, Realtime analysis, Role of ERP, Predictive analytics: Machine learning in process optimization and automation, Data analytics and Data science, Role of automation tools – Power BI, Tableau, UI Path and Blueprism, Challenges and contemplations in implementing new technologies

#### Unit-IV Organizational culture and change management

Building resilient frame work with robust road map , Managing resistance to change in BPR, Building a culture of continuous improvement, Role of TQM in BPR, Having a wider Approach -From process improvements to organizational improvements, KPIs and balanced scorecard, Role of leadership in driving successful BPR initiatives Project management –An indispensable constituent, Project management tools, Agile methodology, Strategies for effective communication and negotiation

#### Unit-V Operational factors in BPR:

Role of ethics in BPR -Leadership context, Social and environmental responsibility in BPR Targeting green BPR approach, Balancing efficiency with social impact , Corporate Social

Responsibility , Competitive world and disruptive environment, lessons in BPR, Timelines in BPR , Skill issue of consultants , Documentation in BPR

**Suggested Readings:**

1. Michael Hammer , James Champy,"Reengineering the Corporation"Harper Collins publications 2014
2. MichaelHammer"Beyond Reengineering: How the Process-Cantered Organization is Changing Our Work and Our Lives",Harper Collins publications
3. Robert J. Howlett, Lakhmi C. Jain,"Smart Innovation, Systems and Technologies, Springerpublication2017
4. Mark O.George, "The Lean Six Sigma Guide to Doing More With Less: Cut Costs, Reduce Waste, and Lower Your Overhead" Wiley publication
5. Joseph M. Juran,"Juran's Quality Handbook: The Complete Guide to Performance Excellence" Jaico Books 2015
6. Samir Parikh,"The Consultant's Handbook: A Practical Guide to Delivering High-value and Differentiated Services in a Competitive Marketplace,Springer Books
7. James M. Kouzes and Barry Z. Posner "The Leadership Challenge: How to Make Extraordinary Things Happen in Organizations" Google books
8. Daniel H. Pink, "Drive: The Surprising Truth About What Motivates Us" Utah press publication
9. Andrew Roberts, "Leadership in War" Riverhead Hardcover, 2019
10. Eric Ries,"The Lean Start-up: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses"Random House

Course-Code	Course Title				Core/ Elective	
<b>P24MB402</b>	<b>LOGISTICS AND SUPPLY CHAIN MANAGEMENT</b>				Core Course	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

**Course objectives:**

1. To understand the fundamental operations of logistics and supply chain management.
2. To apply the knowledge and principles of management of cross functional areas for effective Logistics and supply chain management.
3. Understand the strategic issues and multi-level linkages in logistics management.

**Course Outcomes:**

After reading this course one should be able to

1. Gain a holistic understanding of logistics and supply chain management and the role of Logistics management in SCM
2. Understand the basic drivers that lead to the performance of LSM in effective manner.
3. Gain an insight into the role of Information Technology and recent trends in making supply chains more efficient.

**Unit-I: Logistics Management-Introduction**

Introduction to logistics, meaning of logistics management, objectives, Evolution of logistics management, concept, functions of logistics management, Role of logistics in supply chain management, difference between logistics and supply chain management, 3PL,4PL

**Unit-II: Importance of Logistics Management**

Inbound and outbound logistics, Integrated logistics management, Reverse logistics, Logistics planning and strategy, Role and importance of transportation in logistics, Transportation formats, Factors influencing their choice.

**Unit III: Supply Chain Management**

Concept, Objectives and Functions of SCM, Evolution of supply chain with respect to its origin, Conceptual framework, Supply chain strategy and structure, Steps in supply chain management, Drivers enhancing effectiveness of supply chains, Value chain, Value delivery systems

**Unit-IV: Managing supply chains**

Bull-Whip Effect, Measures of supply chain performance, Warehousing-Types of warehousing, Warehousing operations, Warehouse Management Systems, Role of Distribution Centers, Supplier integration- Forward integration, Backward integration, Diversification, Global supply chains

**Unit-V: Recent trends in SCM:**

Role of IT in SCM, Lean Supply Chains, Digital supply Chains, Green Supply Chains, Circular Supply Chains, Agile Supply Chains, FMS, RFID, Bar coding, Trends in supply chain management

**Suggested Readings:**

1. Shah. J, "Supply Chain Management", 2009, 1st Edition, Pearson Education
2. Shridhara Bhat, K "Logistics and Supply Chain Management", 2017, Himalaya Publishing House.
3. Crandall, Richard E & others, "Principles o Supply Chain Management", 2010, CRC Press.
4. Mohanty, R P and Deshmukh S.G, "Essentials of Supply Chain Management", 2009, 1st Ed Jaico,
5. Chandrasekaran. N, "Supply Chain Management process, system and practice", 2010, Oxford, 1st Ed.
6. Altekhar, V. Rahul, "Supply Chain Management", PHI, 2005
7. Leenders, Michiel R and others, "Purchasing and Supply Chain Management", 2010, TMH.
8. Coyle, J.J., Bardi E.J. Etc., "A Logistics Approach to Supply Chain Management", 2009 Cengage,
9. Ling Li, "Supply Chain Management: Concepts, Techniques and Practices", 2009, 1st Ed Cambridge.
10. Kachru Upendra, "Exploring the Supply Chain Theory and Practice", 2009, Excel books.

Course-Code	Course Title				Core/ Elective	
P24MB403	BUSINESS INTELLIGENCE				Core Course	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

**Course Objectives:** The Objectives of the Course are:

1. To provide knowledge of Business Intelligence tools that can be used for Decision-making in an Organization
2. To familiarize Students on Data Warehousing Concepts, Data Mining Techniques and understand relationships between the underlying Business Processes of an Organization.
3. To provide knowledge on Prescriptive Analytics and its types, and the various applications of Business Analytics on different Domains.

**Course Outcomes:** After Completion of the Course, Students will be able to:

1. Understand the basic Concepts of Business Analytics in an Organization.
2. Establish the Data Warehousing Mechanism.
3. Experiment various methods of Visualization and Data mining methods.
4. Compare and contrast among Descriptive, Predictive and Prescriptive Analytics.
5. Practice the application of Business Analytics in different domains.

## Unit I

### Introduction to Business Intelligence (BI)

Definition, History and Evolution, Styles of Business Intelligence, Benefits of Business Intelligence, Real-time Business Intelligence, Business Intelligence Value Chain, Architecture Business Intelligence.

## Unit II

### Data Warehousing and Data Mining

- a) Data Warehousing (DWH): - Definition, Characteristic, types, Data warehousing framework, DWH 3 tier architecture, Alternative Architectures, Data warehousing Integration, Data warehousing- Development Approaches, Real time Data warehousing.
- b) Data Mining :- Definition, Characteristic, Benefits, Data Mining Functions, Data Mining Applications, Data Mining techniques and tools. Text Mining, Web Mining.

## Unit III

### Business Performance Measurement (BPM)

Definition, BPM vs BI, Summary of BPM Process, Performance Measurement, BPM Methodologies, BPM Architecture and Applications, Performance Dash boards.

## Unit IV

### Business Analytics and Data Visualization

- a) Business Analytics - Definitions, Tools and techniques of BA, Advanced Business Analytics Business Analytics and Web, Usage, Benefits and Success of Business Analytics.
- b) Data Visualization: Definition, New Direction in Data Visualization, GIS, GIS vs GPS

## **Unit V**

### **Business Intelligence Implementation**

- a) Implementing Business Intelligence – Implemental Factors, Critical Success factors of Business Implemental, Managerial Issues related to BI Implementation. Business Intelligence and Integration Implementation – Types, Need, Level of Business Intelligence Integration.
- b) Emerging trends in Business Intelligence Implementation- Social Net works and Business Intelligence, Collaborative Decision Making, RFID and Business Intelligence, Reality Mining.

### **Suggested Readings:**

1. Business Intelligence-A Managerial Approach, Turban, Sharada, Delen, King- Pearson - Second Edition-2014.
2. Decision Support and Business Intelligence Systems -Turban, Aaronson, Liang, Sharada-Pearson, and latest Edition.
3. Successful Business Intelligence, Cindi Howson, McGraw Hill Education-Indian Edition.
4. Business Intelligence- A hands on approach by N. Rajeshwari, 1st Edition, PHI
5. Ramesh Sharda, Turban E, Business Intelligence and analytics, 10th Edition, Pearson Books
6. Bernard Marr, “Data strategy” Kogan Page publishing
7. Anoop V K Kumar, “Business Intelligence demystified” 1st edition 2022, BPB publications
8. Jarke M, Fundamentals of Data Warehousing, 2nd edition Springer India publication
9. Paulraj Ponniah, Data warehousing fundamentals for IT professionals, 2nd edition , John Wiley books
10. Lather A S, Anil K Saini “Business Intelligence and data warehousing” 2018, Narosa publication



Course-Code	Course Title				Core/Elective	
<b>P24MB404</b>	<b>BANKING AND INSURANCE (FINANCE)</b>				<b>Elective-III</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

1. To provide an overview of the structure of banking and insurance business in India.
2. To describe the products and services in Banking and Insurance
3. To highlight the regulatory changes and innovations in the Banking and Insurance sectors.
4. To prepare students for career opportunities in banking and insurance

### Course Outcomes:

After studying this course the student will be able to

1. Learn about the performance of banks in India
2. Learn about the sources and uses of bank funds
3. Understand the role and importance of insurance, its types, principles, and regulation
4. Understand the latest innovations in banking system

### Unit-I: Introduction to Banking:

Structure of Indian Banking system- scheduled commercial banks, foreign banks; commercial banks versus payment banks; Types of banking –universal banking, wholesale banking, private banking, retail banking; Evolution of Banking in India-nationalization, banking reforms: financial intermediation by banks; Role of commercial banking and economic development.RBI, Banker-Customer relationship. Functions of a Bank, Banking Sector and organization of Banks: Different types of accounts. Various services offered by banks, Sources of risk in banks; Analyzing banks' financial statements

### Unit-II: Uses of Bank Funds:

Features or Bank Credit, Different types of accounts. Steps to be followed in the assessment of creditworthiness or a prospective borrower, The credit process and management, Different types of loans and their features, Loan Pricing: The basic model, pricing of fixed & floating rate loans, cost-benefit loan pricing, Customer Profitability Analysis, NPAs:- concept of gross and net NPAs, causes, implications & recovery of NPAs. Priority sector lending.

### Unit-III: Regulation and Innovations in Banking System:

Regulation of Bank Capital: The need to regulate Bank Capital, Concept of Economic Model, Concept of Regulatory Capital, Basel Accords I, II and III: Banking innovations:- Core Banking Solution, Retail Banking-Products & Services - Nature, Scope, Future and Strategies, Plastic Money, National Electronic Funds Transfer, ATM, Mobile Banking, M-Wallets, Net Banking; Bancassurance; Payment & Settlement systems in Banks-Clearing and Gateways.

**Unit-IV: Introduction to Insurance:**

Definition and nature of Insurance, Role and importance of Insurance, History and Development of Insurance, Risk Management and the Role of Insurance, Features of insurable risk; Principles of insurance; Legal aspects of Insurance Contract, Functions of Insurers, Types of Insurers, Reinsurance, Prospects of Insurance Companies, Overview of IRDA.

**Unit-V: Life Insurance and General Insurance:**

The concept of Life Insurance, Life Insurance Products-Traditional and Market Related, Pension Plans, Group Insurance, Insurance for the under privileged; Tax treatment of Life Insurance; Claims settlement, Distribution channel Marketing intermediaries; General insurance types - Health and accident, Motor, Fire, Credit and crop.

**Suggested Books:**

1. Introduction to Banking, Vijayaragavan Iyengar, Excel Books, 2009.
2. Banking and Insurance, O.P.Agarwal,Himalaya Publishing, 2010.
3. Bank Management & Financial Services, Peter.S.Rose & Sylvia. C. Hudgins, Tata McGraw Hill 2010, 7th Edition.
4. Bank Financial Management, IIBF, Macmillan 2010.
5. Management of Banking & Financial Services, Padmalatha Suresh & Justin Paul, Pearson, 2nd Edition.
6. Fundamentals of Risk & Insurance, Emmett J. Vaughan & Therese M. Vaughan, Wiley, India Edition 2003, 9th Edition.
7. Indian Insurance-A Profile,H. Narayanan,JaicoPublishingHouse,2008.
8. Risk Management&Insurance,S.Arunajatesan,T.R.Viswanathan,MacMillan2009.
9. Introduction to Risk Management& Insurance, Mark. S.Dorfman, Prentice-Hall of India Private Limited-2007, 8th Edition
10. Insurance-Principles and Practice,M.N.MishraandS.B.Mishra,S.Chand,16'hEdition.

Course- Code	Course Title				Core/ Elective	
P24MB405	<b>BUYER BEHAVIOUR (MARKETING)</b>				<b>Elective-III</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

1. The main objective of this course is an introduction to the world of buyer behavior.
2. The discipline borrows from several social sciences including psychology, sociology, and anthropology to explain behavior in the marketplace.
3. This course will explore how perceptions, learning, memory, personality, and attitudes influence consumption behavior.
4. It establishes the relevance of buyer behavior theories and concepts to marketing decisions.

**Course Outcomes:**

1. Students can examine and identify the major influences in buyer behavior
2. Students can develop an understanding between different consumer behavior influences and their relationships.
3. To enable students in designing and evaluating the marketing strategies based on fundamentals of consumer buying behavior.

**Unit - I: Understanding Buyer Behaviour**

Introduction to buyer behaviour, Contemporary dimensions of buyer behaviour, Buyer behaviour research process, Concepts and theories of motivation marketing implications, Motivation and buyer behavior, motives and motivation theories, personality and its role in buyer behavior.

**Unit - II: Components of buyer behaviour**

Perception and Learning Theory: Introduction, meaning, nature, Importance and limitation of perception, Theories of buyer behavior, its role in Learning principles and their marketing implications. Concepts of conditioning, important aspects of information processing theory, encoding and information retention, Retrieval of information

**Unit - III: Role of culture and groups**

Impact of culture on buyer behaviour, Social and cultural settings, Meaning of culture, Characteristics of culture, Functions of culture, Types of culture, Sub-culture and cross cultural marketing practices, Reference groups and family life cycle, Advantages and disadvantage of reference groups, Types of reference groups. Role of family life cycle in buyer behaviour

**Unit - IV: Attitude and buyer decision process**

Consumer decision making and buyer attitude: Information search, evaluation of alternatives. Steps between evaluation of alternatives and purchase decision, Post-purchase behaviour, Attitude and consumer behaviour, Meaning of attitude, nature and characteristics of attitude, Types of attitude, Learning of attitude, Sources of influence on attitude formation

### **Unit - V: Models of Buyer behaviour**

Models of buyer behaviour: Modeling behavior, Traditional models, Contemporary models, Generic models of buyer behavior, Howard Sheth model, Engel Blackwell model and Rao-Lilien model, Consumerism

### **Suggested Readings:**

1. Schiffman and Kanuk, "Consumer Behavior", 2004, Pearson Education / PHI.
2. Black-well, R. Miniard PW and Engel, "Consumer Behavior", 2005, Thomson Learning.
3. Loudon and Della Bitta, "Consumer Behavior", 2004, TMH.
4. Dinesh Kumar Consumer Behavior, 2014, oxford University Press.
5. Gary Lilien, "Marketing Models", 2000, PHI.
6. Suja R. Nair, "Consumer Behaviour in Indian perspective", 2010, HPH.
7. Shethand Mittal, "Consumer Behavior", 2004, Thomson Learning.
8. Satish Batra, "Consumer Behavior", 2009, Excel Books New Delhi.

Course- Code	Course Title				Core/ Elective	
<b>P24MB406</b>	<b>LEADERSHIP AND CHANGE MANAGEMENT (HUMAN RESOURCE)</b>				<b>Elective-III</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	4

### Course Objectives:

1. To have conceptual foundation to read change in organizations
2. To understand how culture differences impact leadership and change processes
3. To understand methods for monitoring the progress of change initiatives

### Course Outcomes:

1. Gain knowledge and understanding of different leadership styles and models.
2. Familiarize with the drivers, methods and model of change.
3. Develop cultural competence in the context of Global organizations and diverse teams

### Unit - I: Introduction to leadership:

Traits, Styles, Skills, Behaviors, Vision, Inspiration and momentum of leadership- International Framework for analyzing leadership, Personality types and leadership, Five factor model of personality, Leadership perspectives on cultural values, Responsibility and organizational performance, Current issues contemporary Leadership styles.

**Unit - II: Leadership development programs and models:** Characteristics, Types and evaluation of leadership development, Efforts-trait, Behavior, Power influence, Situational and integrative approaches to leadership, Causal and normative models - Leader-member exchange theory, LPC model-VIM of self- leadership perspectives on change, Contingency, Resource dependence, Population ecology and institutional.

### Unit - III: Strategic change process:

Hopson's change curve, Virginia Satir change model, Noer's redundancy intervention model-change path diagnostics, Reactive and proactive change Path-Nabisco's Renewal Path, Diagnostic models for organizational change, Methods for dealing with resistance to change, Enablers and barriers to change, Model of cognitive, Effective and behavioral responses to change, Five stages of planned change.

### Unit - IV: Initiating change:

Weinberg's change process, triggers, drivers and tracers of change - Leavitt model-change mapping, change spectrum, Gestalt change cycle - Tropics Test, Behavioral, cognitive, psycho - dynamic and humanistic approaches to change, Bechard's change formula - Buchanon and McCalman's model of perpetual transit in management - Types of individual, group and organizational change, Organizational change matrix.

### Unit - V: Methods and models for change management:

Warfield 6-3-5 method Rosemary Stewart's model - Tony Buzan's mind maps - Edward de Bono's six thinking hats - Johari window - Nadler and Tushman's congruence model -

Scenario analysis - power - interest matrix - Kotler's 8 step change model Pendlebury, Nadler, Kanter and Taffinder's planned change models, Dunphy Contingency Model of change.

**Suggested Readings:**

1. Cameron & Green, " Making sense of change management", 2009, Kogan page.
2. Peter G. Northouse, "Leadership", 2010, Sage.
3. Peter Lorange, "Thought leadership", Meets Business", 1st edition, 2009, Cambridge
4. John ADAIR, "Inspiring Leadership", 2008, Viva Books.
5. Gary Yukl, "Leadership in organizations", 2006, Pearson.
6. A J. DuBrin, " Leadership", 2005, Wiley.
7. Mark Hughes, " Change management in organization ", 2008, Jaico.
8. Kavitha Singh, " Organization Change & Development ", 2005, Excel Books.
9. Lussir, " Effective Leadership", 2009, Cengage.
10. Eric Flamholtz & Yvonne Randle, "Leading Strategic Change" 1st Ed. 2009, Cambridge.
11. Ian Palmer, " Managing organizational change", 2008, TMH.
12. Jim Grieses, "Organizational change", 2010, Oxford.
13. Jeffry Russell, "Change Basics ", 2006, ASTD Press.
14. N. Sengupta, "Managing change in organizations", 2006, PHI.
15. Srivastava, "Transformation Leadership", 2008, Macmillan

Course-Code	Course Title				Core/Elective	
P24MB407	DATA VISUALIZATION (SYSTEMS)				Elective-II1	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

1. To enable students to understand the concepts related to data visualization.
2. To understand the tools and techniques of Data Visualization, dashboards.
3. To enable a practical understanding of Visualization with Power BI.

**Course Outcomes:**

1. Enables students to understand importance of Data -Visualization for Decision- making.
2. Helps students to get practical experience of Data Visualization on Microsoft Power BI.

**Unit - I: Introduction to data and information visualization:**

Definition and why we visualize data, How we visualize data, A brief history of Data Visualization, Types of data - categorical, ordinal and quantitative data. Visual analytics concepts.

**Unit - II: Data Visualization tools and techniques:**

Data Visualization tools , Multidimensional Data Visualization tools, Column and Bar graphs, Charts, Line graphs, Scatter plots, Pie graph, Hierarchical and Landscape Data Visualization tools, Maps, Tree graph.

**Unit - III: Data Visualization -Dashboard Basics:**

Definition- Performance of dashboard, Types of dashboards- Operational, Tactical and Strategic. Dashboard design, Business activity monitoring through Dashboards, Common pitfalls of dashboard design. Organizing data for dashboards

**Unit - IV: Introduction to Power BI:**

Power BI, Concepts-Parts of Power BI Desktop , Major Building Blocks of Power BI, Data Sets, Shared data sets, Reports, Dashboards - Types of Visualizations, Area charts, Bar and Column charts, Donut charts, Gauge charts, KPI's, Line charts, Maps, Matrix, Q&A Visual, Tree maps, Waterfall charts.

**Unit - V: Microsoft Power BI and Other features:**

Getting Data Source-Excel as a source, SQL as source, Web as a source, Creating and interacting with Dashboards, Sharing dashboards -Power Query editor for querying data and Report server for reports.

**Suggested Readings:**

1. Dick Kusleika “Data Visualization with Excel dashboards and reports”, 2021, Wiley.
2. Ramesh Sharada, Dursun Delen, Efraim Turban,”Business Intelligence”, A managerial perspective on analytics Pearson.
3. Stephanie P.H,”Effective Data Visualization: Right chart for sight data” Evergreen 2019.
4. Tom Soukup, Ian Davidson,”Visual Data Mining -Techniques and tools for Data Visualization and Mining”, Wiley Publishing.
5. Wayne W Eckerson, ”Performance Dashboards-Measuring, monitoring and managing your business” Wiley & Sons, Inc.
6. Mitchell Pearson, Manuel Quintana,”Microsoft Power BI quick start guide: Packt Publishing, 2018.
7. Alberto Ferrari, Marco Russo,”Introducing Microsoft Power BI- Microsoft Press, 2016, Microsoft Corporation.



Course-Code	Course Title				Core/Elective	
P24MB408	PYTHON PROGRAMMING (BUSINESS ANALYTICS)				Elective-III	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:** This course will enable students to

1. Learn Syntax and Semantics and create Functions in Python.
2. Handle Strings and Files in Python.
3. Understand Lists, Dictionaries and Regular expressions in Python.
4. Implement Object Oriented Programming concepts in Python.
5. Build Web Services and introduction to Network and Database Programming in Python.

**Course Outcomes:** The students should be able to:

1. Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.
2. Demonstrate proficiency in handling Strings and File Systems.
3. Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.
4. Interpret the concepts of Object-Oriented Programming as used in Python.
5. Implement exemplary applications related to Network Programming, Web Services and Databases in Python.

### UNIT-I

Python Basics, Objects- Python Objects, Standard Types, Other Built-in Types, Internal Types, Standard Type Operators, Standard Type Built-in Functions, Categorizing the Standard Types, Unsupported Types

Numbers - Introduction to Numbers, Integers, Floating Point Real Numbers, Complex Numbers, Operators, Built-in Functions, Related Modules  
Sequences- Strings, Lists, and Tuples, Mapping and Set Types

### UNIT-II

FILES: File Objects, File Built-in Function [ open() ], File Built-in Methods, File Built-in Attributes, Standard Files, Command-line Arguments, File System, File Execution, Persistent Storage Modules, Related Modules

Exceptions: Exceptions in Python, Detecting and Handling Exceptions, Context Management, \*Exceptions as Strings, Raising Exceptions, Assertions, Standard Exceptions, \*Creating Exceptions, Why Exceptions (Now)?, Why Exceptions at All?, Exceptions and the sys Module, Related

Modules Modules: Modules and Files, Namespaces, Importing Modules, Importing Module Attributes, Module Built-in Functions, Packages, Other Features of Modules

### UNIT-III

RegularExpressions:Introduction,SpecialSymbolsandCharacters,ResandPython  
MultithreadedProgramming:Introduction,ThreadsandProcesses,Python,Threads,andtheGlob  
alInterpreter Lock,Thread Module,ThreadingModule,Related Modules

#### **UNIT-IV**

GUIProgramming:Introduction,TkinterandPythonProgramming,BriefTourofOtherGUIs,Rel  
atedModulesand OtherGUIs

WEB Programming: Introduction, Wed Surfing with Python,Creating Simple  
WebClients,AdvancedWebClients,CGI-HelpingServersProcessClientData,Building  
CGIApplication  
AdvancedCGI,Web(HTTP) Servers

#### **UNIT-V**

DatabaseProgramming:

Introduction,PythonDatabaseApplicationProgrammer'sInterface(DB-  
API),ObjectRelationalManagers(ORMs),Related Modules

#### **TEXTBOOK:**

1.CorePythonProgramming,WesleyJ.Chun,SecondEdition,Pearson.

Course-Code	Course Title				Core/Elective	
P24MB409	<b>TECHNOLOGY FOR ENTREPRENEURS (ENTERPRENEURSHIP)</b>				<b>Elective-III</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course objectives:**

1. This course explores the intersection of technology and entrepreneurship
2. It focuses on how technology both drives and enables entrepreneurial ventures.
3. Students will learn about key technologies that have revolutionized various industries
4. They will learn about the essential technological skills required for successful entrepreneurship.

**Course outcomes:**

1. Understand the role of technology in shaping entrepreneurial opportunities.
2. Identify and evaluate emerging technologies with the potential for entrepreneurship
3. Develop the necessary technological skills to create and manage entrepreneurial Startups.
4. Analyze Real-world Case Studies of Successful and Failed entrepreneurial ventures.
5. Formulate effective strategies for integrating technology into entrepreneurship

**Unit I: Introduction to technology & entrepreneurship:**

Technological entrepreneurship: Concept, meaning and definition; Historical overview of technological advancements and entrepreneurship; Importance of technology in identifying market gaps and creating value; Overview of key concepts such as innovation, disruption, and scalability.

**Unit II: Technologies driving entrepreneurial opportunities:**

Understanding emerging technologies (e.g., AI, IoT, Blockchain, Biotech), Disruptive potential of new technologies in various industries, Case studies of successful startups, Leveraging technology for entrepreneurship, Identifying market trends and opportunities through technological advancements

**Unit III: Technological skills for entrepreneurs:**

Basics of coding and programming for non-technical entrepreneurs, Data analysis and interpretation for informed decision-making, UI/UX design principles for creating user-friendly products and introduction to cyber security and data privacy considerations.

**Unit IV: Integrating technology into models**

Lean startup methodology and iterative development, Design thinking and user-centered product development, Building Minimum Viable Products (MVPs) to validate ideas, Strategies for scaling technology-driven ventures.

**Unit V: Challenges and strategies in technological entrepreneurship:**

Managing technology risks and uncertainties, Intellectual Property protection and patents, Navigating regulatory and ethical challenges in tech startups, learning from failure: Case studies of unsuccessful technology venture

**Suggested Readings:**

1. Ries Eric (2011) The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, Portfolio Penguin Publisher
2. Duening, T. N., Hisrich, R. A., & Lechter, M. A. (2016). Technological Entrepreneurship: Creating, Capturing, and Protecting Value (1st ed.). Academic Press.
3. Peter Thiel and Blake Masters (2014).Zero to One: Notes on Startups, or How to Build the Future ,Virgin Books Publisher - 2014th edition
4. Timmons, J. A., Spinelli, S., & Zacharakis, A. (2019).New Venture Creation: Entrepreneurship for the 21st Century, McGraw-Hill Education.
5. Morris, M. H., Kuratko, D. F., & Covin, J. G. (2019).Corporate Entrepreneurship & Innovation, Cengage Learning.
6. Christensen, C. M. (1997). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail (1st ed.). Harvard Business Review Press.
7. Moore, G. A. (1991). Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers (1st ed.). HarperBusiness.
8. Skarzynski, P., & Crosswhite, D. (2014). The Innovator's Field Guide: Market Tested Methods and Frameworks to Help You Meet Your Innovation Challenges. Wiley.
9. Ross, A. (2017). The Industries of the Future (Reprint ed.). Simon & Schuster.
10. Matthes, E. (2019). Python Crash Course: A Hands-On, Project-Based Introduction to Programming (2nd ed.). No Starch Press.
11. Kawasaki, G. (2015). The Art of Start 2.0: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything. Portfolio.
12. Eyal, N. (2014). Hooked: How to Build Habit-Forming Products. Portfolio.
13. Blank, S., & Dorf, B. (2012). The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company (1st ed.). Wiley.
14. Croll, A., & Yoskovitz, B. (2013). Lean Analytics: Use Data to Build a Better Startup Faster. O'Reilly Media.
15. Horowitz, B. (2014). The Hard Thing About Hard Things: Building a Business When There Are No Easy Answers. Harper Business.
16. Aulet, B. (2013). Disciplined Entrepreneurship: 24 Steps to a Successful Startup. Wiley books

Course-Code	Course Title					Core/ Elective
P24MB410	DISTRIBUTION MANAGEMENT FOR GLOBAL SUPPLY CHAIN ( SUPPLY CHAIN)					Elective-III
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

6. To understand the strategic role of logistics management
7. To study the important modes of logistics operations
8. To Know supply chain techniques in an international perspective.

### Course Outcomes:

1. Able to Understand the strategic role of Global Logistics and Global Supply chain Management in the cost reduction and offering improved service to the global customers.
2. To Know various channels of Distribution and channels functions
3. Combining the traditional physical distribution activity with modern Information Technology to have sustainable competitive advantage to the organization Globally.
4. To Understand material handling in logistics globally.
5. To gain knowledge about distribution channel structure and network.

### Unit 1:

Need for physical distribution – functions of distribution –marketing forces affecting distribution. The distribution concept – systems perspective. Physical distribution trends.

### Unit 2:

Channels of distribution: role of marketing channels – channel functions – channel structure – designing distribution channel – choice of distribution channels – factors affecting. Intermediaries: functions of intermediaries – types of intermediaries – variables in selecting channel members – motivating – training – evaluating channel members – modifying channel arrangements.

### Unit 3:

Distribution control & Evaluation: Distribution control – stages of control process – standards & goals– performance report - measurement – monitoring – corrective action. Organization for Distribution: Distribution Organization structure – Private & Public organizations - conflict resolution – rising costs& need for control – complexities of physical distribution.

### Unit 4:

Role of Material Handling in Logistics – Material Handling Guide lines – Material Handling Equipment and Systems – Automated Material Handling, Benefits of Logistics Outsourcing – Third

Party Logistics – Fourth Party Logistics – Value Added Services.

**Unit 5:**

Role of Logistics in Distribution Channel – Distribution Channel Structure – Logistic Requirements of Channel Members – Logistics Support to Distribution Channel.

**Text Books:**

1. Kapoor Satish K., and KansalPurva, 'Basics of Distribution Management: A Logistical Approach', Prentice Hall of India
2. D K Agrawal, 'Distribution and Logistics Management: A Strategic Marketing Approach', Macmillan publishers India
3. Alan Ruston, Phil Crouches, Peter Baker, 'The Handbook of Logistics and Distribution Management kogan page
4. Kapoor Satish K., and KansalPurva, 'Basics of Distribution Management: A Logistical Approach', prentice hall off India
5. D K Agrawal, 'Distribution and Logistics Management: A Strategic Marketing Approach', Macmillan publishers India

Course-Code	Course Title					Core/ Elective
P24MB411	HEALTH CARE INNOVATION AND ANALYTICS (HEALTH CARE)					Elective-III
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

1. To provide a broad overview of data analytics
2. To gain insight for making informed healthcare decisions.

### Course Outcomes:

3. Able to Understand the Data Structure – Electronic Health Record
4. To Know various Minor Sensor data in Medical Informatics
5. To Know Out-Patient(OP) Data Indicators, In-Patient(IP) Data Source and utilization, Emergency Room(ER) Indicators and Interpretations
6. To Understand Modern Applications of Insurance Claims data in Healthcare Research
7. To gain knowledge about Literature on Discrete – Event Simulation in Health Care

### Unit I: Healthcare Business Innovation in life sciences

Health care technology from a business perspective – micro and macro-economy views overview of main advances in technology in the last century and their impact on social welfare the pharmaceutical sector - the biotechnology sector – the medical device sector, the dynamic of technological evolution and capital market ingenuity - mergers, acquisitions, and the advantages of scale in the pharmaceutical sector Creativity vs. innovation, product development and commercialisation, types of innovation - disruptive, frugal and reverse, innovation vs. Invention

### Unit II: Data Analytics and Sensor Data in Healthcare

Introduction, Background - Data Structure - Electronic Health Record (Structured EHR, Un structured EHR and Medical Images), Genomic Data (DNA Sequences) Behaviour data (Social Network, Mobility sensor data). EMR module – introduction – Components – Benefits  
Minor sensor data in Medical Informatics – Challenges in Healthcare data Analytics – Non clinical healthcare applications.

### Unit – III: Data sources and interpretations in Hospitals

Out-Patient (OP) Data Indicators - Geographic and Demographic analysis of Patients, Appointment Turn Around Times, Understanding New/ Follow-up visits and its interpretations, Lead generations Vs conversions on Diagnostics & Pharmacy prescriptions, Planned admissions and conversions, Average Prescription value on Diagnostics & Pharmacy sales, Opportunity sales Loss on potential conversions. Understanding Bounce and stock outs at Pharmacy. Feedback and Net Promoter Score (NPS) analysis.

In-Patient (IP) Data source and Utilisation - No of Beds, No of Admissions, No. of Discharges, Average Daily Census, ALOS, Total stay Days, Average Bed Occupancy Rate, Bed Turnover Rate, No. of ICU Beds, Average ICU Bed Occupancy Rate, Average ICU length of stay, No. of Transfers, No. of Deaths & Mortality Rates. Average Revenue Per Operational Bed (ARPOB) - Average Revenue per Patient (ARPP) – Payor wise Average revenue per patient – Department wise

and Doctor wise Revenue (ARPOB/ARPP) – TTM, YTM, MTD - Estimates Vs Billing and Discrepancies - Discount and Impact Analysis

Emergency Room (ER) Indicators and interpretations - ER workflow and services - Data collection and Time-Motion studies - ER Responsive time-motion assessment; Nurse, Physician and Specialist

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- ER to admission ratios - ER Discharges/LAMA percentages - Re-Visit rate within 48 hours with RCA

Operation Theatre (OT) Data Indicators and interpretations - No. of surgeries planned Vs performed Vs cancelled - Interpretation of surgeries as per - Department wise, Doctor wise, Anaesthesia wise, Duration wise - No. of re- explorations - Turn Around Times (TAT) in OT

#### **Unit -IV Modern Applications of Insurance Claims Data in Healthcare Research**

Introduction - Modern Applications of Insurance Claims Data in Healthcare Research

Advantages and limitations of claims Data Application – Areas - Statistical Methodologies used in Claims Based studies. Healthcare cost Predictions - Modeling of Healthcare costs - Modeling of Disease burden and Interactions - Prediction algorithms - Applying regression methods to cost predictions.

Modeling and Simulation of Measurement - Uncertainty in clinical Laboratories – Background – Measurement of uncertainty - Pre Analytical, Analytical and Post Analytical estimation

#### **Unit – V Discrete-Event Simulation for Primary Care Redesign**

Literature on Discrete-Event Simulation in Healthcare - **Simulation case study on:**

Patient flow Model Development - Model Validation

**What IF Analysis** - Staffing analysis - Doctor Analysis - Schedule Change - Volume Change - Room/Ward Assignment - Early/late start

#### **Suggested Reading :**

1. The business of healthcare innovations –Lawton Robert Burns
2. Anthony y. K. Chan : Medical Technology Management Practice, Charles C Thomas Publisher
3. Ann Fullick : Medical Technology, Heinemann Raintree publishers
4. Trevor L. Strome (2013). Healthcare Analytics for Quality and Performance Improvement. John Wiley & Sons, Inc.
5. Excel for Dummies; Greg Harvey; Wiley
6. Statistical Analysis with Excel For Dummies, 4th Edition; Joseph Schmuller; Wiley
7. Business Analytics: The Science of Data-Driven Decision Making; U Dinesh Kumar;
8. Excel Statistics: A Quick Guide; Neil J. Salkind; Sage Publications
9. Applied Business Statistics, 7th Edition; Ken Black; Wiley
10. Data Analysis Using SQL and Excel, 2nd Edition; Gordon S. Linoff; Wiley



Course-Code	Course Title				Core/Elective	
P24MB412	INTERNAIONAL FINANCE (FINANCE)				Elective-IV	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

#### Course Objectives:

1. To provide an analysis of the evolution of International Financial System.
2. To learn about international banking.
3. To study about the foreign exchange markets.
4. To learn the financial management of MNCs.
5. To understand the international tax environment.

#### Course Outcomes:

After studying this course, the student will be able to

1. Differentiate between fixed and floating rates
2. Make calculations relating to foreign exchange rates based on parity theories
3. Understand the financial instruments in international markets
4. Make decisions relating to capital budgeting techniques in an international environment

#### Unit-I: International Financial System

Evolution of international financial system –gold standard, Breton woods standard, floating exchange rate, EMS, currency board, sterilized and unsterilized intervention: international financial markets.

Global financial institutions: IMF, Bank for International settlements: International banking – Euro bank, types of banking offices, correspondent bank, representative office, foreign branch, subsidiary bank, offshore bank. International financial instrumentsEuro CP, Eurobonds, Foreign bonds, global bonds, euro equity, ADR, GDRs.

#### Unit-II: Foreign exchange market

Distinctive features and types, Major participants, Participants in foreign exchange market, structure of foreign exchange market in India, Exchange rate mechanism-quotes in spot market and forward market, Triangular arbitrage: nominal effective exchange rate (NEER),Real effective exchange rate (REER), currency derivatives-forwards, Futures, forward rate agreement, options, swaps. Foreign Exchange Management Act, BoP, BoP trends in India, current account convertibility, capital account convertibility, Tarapore Committee Report.

#### Unit-III: Exchange Rate Determination & Risk Management

Theories of exchange rate behavior, Parity conditions, Purchasing power parity, Interest rate parity. International Fisher effect, Unbiased forward rate theory, International debt crises and currency crises, Asian currency crisis, Greek debt crisis, Risk management in Multinational Corporations, Types of risk-currency risk, Transaction exposure, Translation exposure, economic exposure and assessment, interest rate risk, Country risk assessment, political risk. Financial risk, Risk management through hedging, Natural hedges, hedges with currency

derivatives, Forward market hedging options, Market hedge, Money market hedge, Hedging exposure through swaps, other financial and non-financial methods of hedging.

#### **Unit-IV: Multinational Corporate decisions in global markets**

Nature of International finance functions and the scope of International financial management, TFM and domestic FM, Foreign investment decision, Foreign direct investment(FDI)motives, FDI theories, Theory of comparative advantage, OLI paradigm of FDI in India, Modes of foreign investment, Evaluation of overseas investment proposal using NPV and APV, International cash management, Multinational capital structure decision, Cost of capital, International portfolio diversification rationale, barriers, home country bias

#### **Unit-V: International tax environment**

Types of taxation, Income tax, withholding tax, value added tax, Tobin tax, tax environment worldwide approach, territorial approach, Foreign tax credits, tax havens, Organization structure for reducing tax liabilities- Branch and subsidiary income, Payments to and from foreign affiliates, Controlled foreign corporation, netting, offshore financial centers, re-invoicing center, Tax havens; Objectives of taxation -tax neutrality tax equity, Double taxation avoidance, Tax implications of foreign enterprises in India, Taxation of foreign source income in India, Transfer pricing (TP) and tax planning -TP methods, TP rules in India

#### **Suggested Readings:**

1. Eun C.S., Resnick B.G., "International Financial Management", Tata McGraw Hill Education Pvt. Ltd., Special Indian Edition,
2. Levi M., "International Finance", Routledge, Taylor & Francis Group
3. Shailaja G, "International Finance", Orient Blackswan
4. Hendrik VandenBerg, "International Finance and Open Economy Macroeconomics" Cambridge
5. Sharan V., "International Financial Management", PHI,
6. Madura J., "International Financial Management", Cengage Learning.
7. Apte P.G., "International Finance", McGraw Hill
8. "Risk Management, Indian Institute of Banking & Finance, Macmillan.
9. Madhu Vij, "International Financial Management", Excel Books
10. Jain, Peyrard and Yadav "International Financial Management," Trinity Press.
11. Kevin. S., Fundamentals of International Financial Management, Second edition, PHI
12. Alan C. Shapiro, Peter Moles, "International Financial Management" Wiley

Course-Code	Course Title				Core/Elective	
P24MB413	<b>SERVICES AND DIGITAL MARKETING (MARKETING)</b>				<b>Elective</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	<b>Elective-IV</b>
	L	T	P			
	4	1	-	40	60	5

#### **Course Objectives:**

1. The main objective of this course is to supplement basic marketing and marketing strategy courses by focusing on problems and strategies specific to marketing of services on global markets
2. Identify the major elements needed to improve the marketing of services.
3. Develop an understanding of the roles of relationship marketing and customer service in adding value to the customer's perception of a service
4. Appraise the nature and development of a global marketing strategy.

#### **Course Outcomes:**

1. Students can examine the nature of services, and distinguish between products And services
2. Students can develop an understanding of the roles of relationship marketing and customer service in adding value to the customer's perception of a service.
3. Students can get appraised about the nature and development of a services marketing strategy.

#### **Unit-I: Introduction to services and Effective Management of Services marketing:**

Concepts, contribution and reasons for the growth of services sector, difference in goods and services in marketing, characteristics of services, Classification of services, Services marketing triangle, Internal marketing of services, External versus internal orientation of service strategy. Marketing demand and supply through capacity planning. Market segmentation, targeting and positioning in services.

#### **Unit-II: Understanding customer expectations through market research and consumer behavior in services:**

Conducting marketing research to understand customer expectations, Search experience and Credence property, consumer expectation of services, two levels of expectations, Zone of tolerance, Factors influencing customer expectation of services, Customer perception of services-Factors that influence customer perception of services, Service encounters, Customer satisfaction, Strategies for influencing customer perception.

#### **Unit-III: Marketing mix in services marketing:**

Traditional mix: The Seven Ps, Product decision, Pricing strategies and tactics, Promotion of service and placing of distribution methods for services. Extended marketing mix, The service delivery process, Designing of the service, blue printing, Managing service role in service encounters, service failure, Service recovery, importance of service employee, Quality- productivity trade off. Physical evidence in services, Types and role of service space

**Unit-IV: Introduction to digital marketing:**

Digital marketing, Importance of digital marketing, Difference between traditional marketing and digital marketing, Trends and scenario of the industry. Search Engine Optimization (SEO), History & growth of SEO, Campaign creation, Google Adwords, Ad creation, Approvals & extensions, Site targeting, Keyword targeting, Demographic targeting/ bidding.

**Unit - V: Social media marketing:**

Social media marketing & Social media, Blogging, Social networking, Video creation & Sharing, Use of different social media platforms, Content creation, Web analytics.

Campaign tagging & Reporting, Email marketing, Introduction to audience reports, Traffic & content reports, Real-time data.

**Suggested Readings:**

1. Valarie A. Zeithaml, Mary Jo Bitner, Dwanye D. Gremler, Ajay Pandit, "Services Marketing - Integrating Customer Focus Across the Firm", Tata McGraw Hill Publishing Co.
2. Vasanti Venugopal and Raghu "Services Marketing", Himalaya Publishing House.
3. Douglas Hoffman, John E.G. Bateson, "Services Marketing: Concepts, Strategies and Cases", Cengage Publications- 5th Edition
4. Sucharith Debnath, Dr. Indrajit Sinha "Services Marketing, Nitya Publication.
5. Wirtz Jochen, Lovelock Christopher "Services Marketing: People Technology, Strategy Pearson, 8th edition.
6. Ian Dodson, "The Art of Digital Marketing: The Definitive Guide to Creating Strategic, Targeted, and Measurable Online Campaigns" Wiley, 1st edition, 2016

Course-Code	Course Title				Core/Elective	
P24MB414	PERFORMANCE MANAGEMENT (HUMAN RESOURCE)				Elective-IV	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

#### Course Objectives:

1. The main objective of the course is to offer an understanding of various approaches to measure performance and facilitate studying different methods of performance appraisal.
2. The course also provides knowledge of the processes performance bench - marking and framework of competencies
3. The course gives understanding of various performance metrics and models.

#### Course Outcomes:

1. To produce Competent Executives
2. To transform Performance Appraisals, Performance Management
3. To build pivotal performance
4. To establish leading Human Capital

#### Unit - I: Introduction:

Definition, concerns and scope of PM. Performance appraisals, Determinants of job performance. Mapping, process, sequence and cycle of PM. Performance planning and Role clarity. KPAS- Performance targets, Trait, Behavior and results approaches to measuring performance. The impact of HRM practices on performance.

#### Unit - II: Performance appraisal:

Assessment center-psychometric tests. Role play-self appraisal, 360 degree appraisals-Rating-less appraisals for the future of PMS, Critical incidents worksheet, Combining behavior and outcomes, Attribution theory-Causal matrix, Diagnosis and performance improvement, Performance review, Performance analysis.

#### Unit - III: Performance bench marking:

Human information processing and performance loop, performance shaping factors-Yerkes- Dodson's Law, Corporate performance management, EFQM excellence model, Diagnostic and process bench marking, PM Audit, PM pathway analysis. The impact of Performance management on line managers and employees.

#### Unit - IV: Competency mapping and pay plans:

Competency mapping-Mercer's human capital wheel, Human asset worth estimator and accession rate, CIPD human capital framework, Performance, competence and contribution related pay models. Cafeteria benefits plan, call back pay. The McBer generic managerial competency model- Competency causal flow model, Competency gap, Competency Assessment-Balanced score card framework.

**Unit - V: Performance metrics and models:**

Performance measures pyramid. Steps for designing metrics, Wang Lab, smart pyramid, Conceptual, DHL, RCN Models of PM, Gilbert's performance matrix and Behavior Engineering model. Direction of trouble shooting with behavior model, Mager and Pipes trouble shooting model - ATI performance improvement model, Spangenberg's integrated model of PM, Sears model for organizational performance.

**Suggested Readings:**

1. Michael Armstrong, "Performance Management", 2010, Kogan Page.
2. Robert L Cardy, "Performance Management", 2008, PHI.
3. A.S. Kohli & T. Deb, "Performance Management", 2009, Oxford.
4. H. Aguinis, "Performance Management", 2009, Pearson.
5. T.V. Rao, "Performance Management & Appraisal System", 2008, Sage.
6. A.M. Sarma, "Performance Management systems", 2010, HPH.
7. B.D. Singh, "Performance Management systems", 2010, Excel books.
8. S. N. Bagchi, "Performance Management", 2010, Cengage.
9. M Armstrong, "Performance Management & Development", 2010, Jaico.
10. Prem Chadha, "Performance Management", 2009, Macmillan.
11. Joe Willmore, "Performance Basics", 2004, ASTD Press.

Course-Code	Course Title				Core/Elective	
P24MB415	DATA MINING FOR BUSINESS (SYSTEMS)				Elective-IV	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

1. To familiarize students with concepts related to data mining.
2. To understand the various tasks in data mining
3. To give a holistic application of data mining

**Course Outcomes:**

1. Enables students to understand the role of data mining in business and decision-making process.
2. Give students a practical overview of data mining
3. Facilitate students with the latest concepts in data mining

**Unit - I: Introduction to data mining:**

Definition- Data mining and knowledge discovery- Motivating challenges in data mining - Origins of data mining - Data mining tasks.

**Unit - II: Data pre-processing:**

Data summarization- Data cleaning- Data integration and transformation- Data reduction- Data discretization and concept hierarchy generation- Feature extraction-feature transformation.

**Unit - III: Association, Classification and Clustering**

**Association:** Definition, Market-Basket Analysis, Naive Algorithm, Aprori Algorithm, Software for association rule mining.

**Classification and prediction:** Decision tree, Bayesian classification, Rule-base classification, Prediction -Linear regression.

**Clustering:** Basic issues in clustering, partitioning methods clustering analysis software.

**Unit - IV: Web Mining and Other Mining:**

Web mining- introduction- Web content mining, Web usage Mining, Web structure mining- Spatial data mining- Text mining, Multimedia mining.

**Unit - V: Data mining applications-**

Application strength of data mining- Data mining for banking and financial data analysis- Data mining in insurance-data mining in biological data analysis- Social media marketing- CRM- Tourism industry-agriculture sector

**Suggested Readings:**

1. Introduction To Data Mining - Pang-Ning Tan, Michael Pang, Vipin Kumar - Education - 2018.
2. Data Mining Concepts and Techniques- J. Han, M. Kamber- Morgan Kaufmann.
3. Introduction to Data Mining- ChaitanyaP. Agrawal, Meena Agrawal. Pearson
4. Data Mining: Concepts, Models, Methods and Algorithms- M. Kantardzic- John Wiley & Sons Inc.
5. Data Mining: Introductory and Advanced Topics - M. Dunham- Pearson Education.
6. Data mining Techniques and application – An introduction, Hongbo Du, Cengage Learning
7. Data Mining: Techniques And Trends, N. P. Gopalan, B. Sivaselvan , Prentice-Hall of India Pvt.Ltd
8. Khushboo Saxena, Sandeep Saxena, Akash Saxena, "Data Mining and Warehousing ", BPB Publications
9. G. K. Gupta "Introduction To Data Mining With Case Studies", PHI Learning
10. Jain Pei, Jiawei Han, Micheline Kamber,"Data Mining: Concepts and Techniques" Elsevier Science



Course-Code	Course Title				Core/Elective	
P24MB416	<b>INTRODUCTION TO POWER BI (BUSINESS ANALYTICS)</b>				<b>Elective-IV</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

1. To understand need importance of Power BI in Business
2. To enable understanding of Power BI design and create reports
3. To understand Chart and Map report properties
4. To enable understanding Power Query Editor and M Language

**Course Outcomes:** After Completion of the Course, Students will be able to:

5. Understand need and importance of power BI in business
6. Create Power BI reports and Auto filters
7. Enable understanding report visualization and properties and extract outcomes from reports
8. Retrieve information from Charts and reports
9. Understand and interpret power Query editor and M Language

## UNIT I

### Introduction To Power BI

Introduction to Power BI – Need, Importance, Power BI – Advantages and Scalable Options, History – Power View, Power Query, Power Pivot, Power BI Data Source Library and DW Files, Cloud Collaboration and Usage Scope, Business Analyst Tools, MS Cloud Tools, Power BI Installation and Cloud Account, Power BI Cloud and Power BI Service, Power BI Architecture and Data Access, OnPremise Data Access and Microsoft On Drive, Power BI Desktop – Installation, Usage, Sample Reports and Visualization Controls, Power BI Cloud Account Configuration, Understanding Desktop & Mobile Editions, Report Rendering Options and End User Access, Power View and Power Map. Power BI Licenses

## UNIT II

### Creating POWER BI Reports, Auto Filters

Report Design with Legacy & .DAT Files, Report Design with Database Tables, Understanding Power BI Report Designer, Report Canvas, Report Pages: Creation, Renames, Report Visuals, Fields and UI Options, Experimenting Visual Interactions, Advantages, Reports with Multiple Pages and Advantages, Pages with Multiple Visualizations. Data Access, PUBLISH Options and Report Verification in Cloud, “GET DATA” Options and Report Fields, Filters, Report View Options: Full, Fit Page, Width Scale, Report Design using Databases & Queries, Query Settings and Data Preloads, Navigation Options and Report Refresh, Stacked bar chart, Stacked column chart, Clustered bar chart, Clustered column chart, Adding Report Titles. Report Format Options, Focus Mode, Explore and

Export Settings

### **UIT III**

#### **Report Visualization And Properties**

Power BI Design: Canvas, Visualizations and Fields, Import Data Options with Power BI Model, Advantages, Direct Query Options and Real-time (LIVE) Data Access, Visualization Filters, Page Filters, Report Filters, Conditional Filters and Clearing. Testing Sets, Creating Customised Tables with Power BI Editor, General Properties, Sizing, Dimensions, and Positions, Alternate Text and Tiles. Header (Column, Row) Properties, Grid Properties (Vertical, Horizontal) and Styles, Table Styles & Alternate Row Colors Background. Borders Properties, Column Headers, Column Formatting, Value Properties, Conditional Formatting Options – Color Scale, Page Level Filters and Report Level Filters

### **UNIT IV**

#### **Chart And Map Report Properties**

CHART Report Types and Properties, Stacked Bar Chart, Stacked Column Chart, Clustered Bar Chart, Clustered Column Chart, Line Charts, Area Charts, Stacked Area Charts, Line And Stacked Row Charts, Line And Stacked Column Charts, Waterfall Chart, Scatter Chart, Pie Chart, Field Properties: Axis, Legend, Value, Tooltip, Formats: Legend, Axis, Data Labels, Plot Area, Data Labels: Visibility, Color And Display Units, Data Labels: Precision, Position, Text Options, Analytics: Constant Line, Position, Labels, Working with Waterfall Charts and Default Values, Map Reports: Working with Map Reports, Hierarchies: Grouping Multiple Report Fields

### **UNIT V**

#### **Power Query & M Language**

Understanding Power Query Editor – Options, Power BI Interface and Query / Dataset Edits, Working with Empty Tables and Load / Edits, Empty Table Names and Header Row Promotions, Undo Headers Options. Blank Columns Detection, Data Imports and Query Marking in Query Editor, JSON Files & Binary Formats with Power Query, JavaScript Object Notation – Usage with M Lang., Applied Steps and Usage Options. Revert Options, creating Query Groups and Query References. Usage, Query Rename, Load Enable and Data Refresh Options, Combine Queries – Merge Join and Anti-Join Options, Combine Queries – Union and Union All as New Dataset, M Language : NestedJoin and JoinKind Functions

#### **Suggested books**

1. **Data Analytics: The Ultimate Beginner's Guide to Data Analytics**, Author: Edward Mize
2. **Data Analytics: Become A Master In Data Analytics**, Author: **Richard Dorsey**
3. **Business Intelligence for Dummies**, Author: Swain Scheps
3. **Predictive Analytics for Dummies**, Author: Dr. Anasse Bari, Mohamed Chaouchi and Tommy Jung
4. **Business Analytics**, Data Analysis and Decision Making, Author: S.Christian Albright and Wayne L. Winston.
5. **Data Strategy**, How to Profit from a World of Big Data Analytics and The Internet of Things, Author: Bernard Marr

Course-Code	Course Title				Core/Elective	
P24MB417	<b>SOCIAL ENTREPRENEURSHIP ( ENTREPRENEURSHIP)</b>				<b>Elective-IV</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credit
	L	T	P			
	4	1	-	40	60	5

#### **Course Objectives:**

1. To explain the concept of social entrepreneurship
2. To help understand the modalities involved in social entrepreneurship
3. To give a holistic perspective of social entrepreneurship

#### **Course Outcomes:**

1. After studying this paper the students will gain insights into the nature of social entrepreneurship
2. Students will understand the role of innovation and social entrepreneurship
3. Students will know the need for social entrepreneurship in the societal context

#### **Unit I: Over view of social entrepreneurship:**

Introduction to social enterprise, Understanding social entrepreneurship, Individual as a social entrepreneur, Challenges and prospects of social entrepreneurship, Models of social enterprises, Support of corporate social responsibility activities for social entrepreneurship.

#### **Unit II: Types of Social Entrepreneurship:**

Factors impacting transformation into social entrepreneur, Characteristics of social entrepreneur, Difference between a business entrepreneur and social entrepreneur, Forms of social enterprises: Profit and non-profit proprietorships- partnership, Non-governmental organization, society, trust and company, Variables determining selection of forms of registration.

#### **Unit III: Social innovation:**

Understanding environment and idea generation for social enterprise, Social innovation and inclusion, Need identification of products /services of social enterprise, Appraising the idea formation through feasibility analysis, Achieving social objectives with commercial ventures. Innovation approaches, Disruptive innovations, Theory of social change, Innovations in public and non-profit organizations, Steps to design an innovative social enterprise, Creating a social business model.

#### **Unit IV: Social entrepreneurship opportunities:**

Opportunities for social entrepreneurs and initiatives: Methods of sensing opportunities and fields of opportunities. Assessing and prioritizing opportunities, Enterprise launching and its procedure, Start-ups, incubation, accessing venture capital, CSR funds, PPP. Successful social entrepreneurship initiatives

#### **Unit V: Strategic framework of social entrepreneurship:**

Managing growth and performance, Strategic framework analysis of social enterprise, Crafting alliances between nonprofit business & government organizations, Social enterprise

management and sustainability of social enterprise, Social audits, Skill development and enhancement, Market research for product/services of social enterprise. Socio-economic impact of social enterprise, Benefits and rewards of social enterprise, Impact of social entrepreneurship on community and stakeholders.

### **Suggested Readings:**

1. Paramasivan. C “Social Entrepreneurship”, New Century Publications, 2020
2. David Bornstein , Susan Davis, “Social Entrepreneurship : what everyone needs to know” Oxford university press, 2019
3. Prahalad C.K, The fortune at the bottom of the pyramid, Eradicating poverty through profits, 2007,Pearson
4. Bronstein David, How to change the world: Social Entrepreneurs and the birth of new idea, 2004
5. Archana Singh, Meetal Reeji “Social entrepreneurship and sustainable development” Routledge 2020
6. Constant Beugre “Social Entrepreneurship” 2016edition, Taylor & Francis Ltd
7. S.B. Verma, Y.T Pawar, “ Rural Empowerment through SHGs, NGOs and PRIs, Deep and Deep Publications Pvt Ltd, 2004
8. Gupta C B, N.P Srinivasan, “Entrepreneurship Development in India” , 2009
9. Maurice Hansan,”Social Entrepreneurship” Excelic Press LLC, 2021
10. Carole Carlson , “Social Entrepreneurship and Innovation”, 1st Edition Sage Publishing, 2022

Course-Code	Course Title				Core/ Elective	
<b>P24MB418</b>	<b>PORT AND AIRPORT MANAGEMENT FOR LOGISTICS ( SUPPLY CHAIN )</b>				<b>Elective-IV</b>	
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

**Course Objectives:**

21. To learn Port structure, functions and operations.
22. To understand the Airport management for logistics.

**Course Outcomes:**

1. Students gain the knowledge of Port and Airport Management for Logistics.
2. To gain knowledge on Port Operations and Facilities
3. To understand Port Development and Growth
4. Know Different Port Types and Ownership
5. Will gain knowledge on Airport Cargo and Customs

**Unit 1:**

Port Structure and Functions: Definition - Types and Layout of the Ports – Organisational structure- Fundamental observations. Main functions and features of ports: Infrastructure and connectivity Administrative functions- Operational functions. Main services: Services and facilities for ships - Administrative formalities - Cargo transfer - Services and facilities for cargo - Additional "added value" service- Ports and their stakeholders like PHO, Immigration, Ship agents, Stevedores, CHA.

**Unit 2:**

Port Operations: Berths and Terminals - Berth Facilities and Equipment - ship Operation – Pre-shipment planning, the stowage plan and on-board stowage - cargo positioning and stowage on the terminal – Developments in cargo/container handling and terminal operation - Safety of cargo operations - Cargo security: Measuring and evaluating performance and productivity.

**Unit 3:**

Port Development: Phases of port development - Growth in world trade - Changes in growth Development in terminal operation. Shipping technology and port: Ship knowledge Ship development and port development - Port time and ship speed - Other technical development affecting port.

**Unit 4:**

Port Administration Ownership and Management Port ownership structure- Types of port ownership and administration – Organizations concerning ports - Boards governing the ports - Port management development Rise and fall of Ports - information technology in ports. Port ownership in Indian context: Acts governing the Ports in India – Port ownership structure in India. Port reform: Framework for port reform - Evolution of ports in a competitive world Alternative Port Management Structure and Ownership Models.

**Unit 5:**

Air Transport: Introduction to Air Transport – Air Freight – IATA – Cargo Handling at Goods at Air Port – Information Management of AirCargo – System and Modules – Distribution of Goods.

**Text Books:**

PATRICK M.ALDERTON. 2008, Port Management and Operations. Information Law Category, U.K.

**Reference Books**

1. WORLD BANK. 2007, Port Reform Tool Kit. World Bank, Washington.
2. MARIA G.BURNS. 2014., Port Management and Operations. CRS Press, U.K.
3. ALAN E.BRANCH. 2008, Elements of Shipping. Chapman and Hall, Fairplay Publications, U.K.
4. DE MONIE. 1989., Measuring and Evaluating Port Performance and Productivity. UNCTAD, New York.

Course-Code	Course Title					Core/ Elective
P24MB419	HEALTH CARE INSURANCE AND MEDICAL TOURISM ( HEALTH CARE )					Elective-IV
Prerequisites	Contact Hour per Week			CIE	SEE	Credits
	L	T	P			
	4	1	-	40	60	5

### Course Objectives:

23. To familiarize the students in the areas of health insurance
24. To provide a managerial framework with the concepts of medical tourism.

### Course Outcomes:

6. Students gain the knowledge Concept of risk – Risk Identification and Evaluation
7. To gain knowledge on Health Insurance Underwriting – Need – Factors impacting Morbidity
8. To understand Different elements of Insurance marketing
9. Know Classification and Components of Tourism – Medical Tourism
10. Will gain knowledge on Medical Tourism – Legal aspects and Promotional Strategies

### UNIT 1: Introduction to Risk and Insurance:

Concept of risk – Risk Identification and Evaluation – Risk Management Techniques – Concept of Insurance- Concept of health Insurance- Principles of Insurance – Demand and Supply of health insurance – Health Insurance products in India – Designing and Pricing of Health Insurance product – Managed care – Current trends in Health Insurance – International and Indian Scenario.

### UNIT 2: Operations in Health Insurance:

Health Insurance Underwriting – Need – Factors impacting Morbidity – Documents used for Underwriting – Underwriting Process – Claim Management Process – Roles and Responsibilities of TPAs – Insurance Regulatory Development Authority ( IRDA) regulations for TPAs.

### UNIT 3: Marketing and Distribution of Health Insurance Products:

Different elements of Insurance marketing – Uniqueness of Insurance markets – Distribution channels for selling health insurance- Legal framework and documentation – Role of IT in Insurance – Tax Planning – ethical Issues.

### UNIT- 4: Medical Tourism – An Introduction:

Tourism – Meaning, Motives, Classification and Components of Tourism – Medical Tourism- Nature and Scope – Growth of Medical Tourism Industry – SWOT Analysis – Medical Tourism products- Factors and Steps for Designing Product or Tour Package – approvals and Formalities – Pre-tour Arrangements – tour operators – Post tour management – Claiming health insurance in medical tourism – Medical tourism facilitators.

### UNIT 5: Medical Tourism – Legal aspects and Promotional Strategies:

Certification and accreditation in medical tourism – Ethical, Legal, Economic and Environmental issues in medical tourism – Medical malpractice – Branding – Digital marketing – Public relations – Word of Mouth communication – Promotion strategies adopted by various hospitals.

**Suggested Readings:**

11. Kenneth Black, Jr. Harold D.Skipper, Jr—Risk and Health Insurance, thirteenth edition, Pearson Education Pvt. Ltd., Delhi, 2003
12. P.K.Gupta—Insurance & Risk Management, Himalaya Publishing House, 2nd edition.
13. S.C.Sahoo & S.C.Das—Insurance Management-text & cases, Himalaya Publishing House, 1st Edition.
14. Neelam C.Gulati—Principles of Insurance Management, Excel Books
15. Sonal Kulakarni—Medical Tourism in India
16. <http://www.medicaltourisminindia.net/index.html>