



**MBA**

**LOGISTICS & SUPPLY CHAIN**

**MANAGEMENT**

**Curriculum and Syllabus**

(Based on Choice Based Credit System)

Effective from the Academic year

**2018-2019**

**Department of M.B.A**

**School of Management Studies**

**COURSE OBJECTIVE: (Employability)**

- To describe the fundamentals of Management, significance, scope of management, levels of manager, functions of a manager and basics of organizational behavior.
- To discuss the development of management thought
- To examine and analyze the behavior of individuals and groups in organizations by understanding the concepts of learning, attitudes & perceptions.
- To understand about the organizational structure, its types, decentralization and delegation of the authority.

**COURSE OUTCOMES:**

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

CO – 1 : Assess the fundamentals of organizational behavior and OB Model

CO – 2 : Analyze the behavior of individuals and groups in organizations

CO – 3 : Describe the concept of leadership, communication, power and conflict resolution

CO – 4 : Demonstrate the dynamics of organizational change.

CO – 5 : Identify the major issues in business ethics and corporate social responsibility.

**UNIT I INTRODUCTION TO MANAGEMENT 12**

Introduction to Management and Organizational Behavior: Concept of Management, Applying Management theory in practice, Evolution of management thought, Management process and Functions – Managerial Roles – OB Model – Contributing disciplines of OB – MBO

**UNIT II INDIVIDUAL PROCESS IN ORGANIZATIONS 12**

Individual Processes in Organizations: Foundations for Individual Behavior – Learning - Attitudes and Job satisfaction – Personality and values – Perception - Motivation and Organizational performance. Contemporary theories of motivation.

**UNIT III INTERPERSONAL PROCESS IN ORGANIZATIONS 12**

Interpersonal process in Organizations: -Communication Process -Methods – Barriers -Grapevine. Transactional Analysis. Group Dynamics: Typology of Groups -Conflicts in groups - Leadership Models and Concepts – leadership theories – Decision making and negotiation - Power and Politics.

**UNIT IV ORGANISATIONAL PROCESS 12**

Organizational Process and Characteristics: **Dimensions of Organization structure** – Authority, Responsibility, and Accountability – Delegation – Centralization, Decentralization – Line and Staff Relationship.

**UNIT V ORGANIZATIONAL DEVELOPMENT 12**

**Organizational Development: Resistance to Change** - Organizational change - Organizational development – Stress management – Business ethics and corporate social Responsibility.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Harold Koontz & Heinz Wehrich, “Essentials of Management”, TMH, 10<sup>th</sup> Edition, 2007.

**REFERENCE BOOKS:**

1. Michael A. Hitt, J. Stewart Black, and Lyman W. Porter, Management, Pearson, 11th Edition, 2011.
2. Koontz & Weirich, Essentials of Management, Tata McGraw Hill Publishing Company, New Delhi. Stoner, Freeman & Gilbert, Management, PHI, 6th Edition.
3. Robbins.S.P. Fundamentals of Management, Pearson, 2003. Robbins.S. Organisational Behaviour, X edn., Prentice-Hall, India.

**COURSE OBJECTIVE: (Employability)**

- To acquaint the student with the applications of Statistics and Operations Research to business and industry
- To help them to grasp the significance of analytical techniques in decision making.
- To test on the application of Operations Research to business related problems.

**COURSE OUTCOMES:**

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

- CO – 1 : Formulation a **Linear programming problem**.
- CO – 2 : Solve the formulation of Linear programming.
- CO – 3 : Evaluate the initial solution for **Transportation Model**.
- CO – 4 : Evaluate the solution for **Assignment Problem**.
- CO – 5 : Minimize the waiting hours of simultaneous projects undertaken.

**UNIT I LINEAR PROGRAMMING 12**

Operations Research – **Linear programming (LP)** – Formulation – Graphical Solutions – Simplex Method – Duality Concepts – Sensitivity Analysis – **Using Excel solver to solve LP Problems**

**UNIT II TRANSPORTATION AND ASSIGNMENT 12**

**Transportation Model** – Initial Solution: North West Corner Rule, Least Cost Method, Vogel's Approximation method – **Assignment Problem**.

**UNIT III NETWORK MODELS 12**

Network Models – Shortest Path Problem: **PERT & CPM** – Maximum Flow Problem – Minimum Spanning Tree

**UNIT IV GAME THEORY 12**

**Game Theory** – Game – Zero-sum games and Non-zero sum games – Pure & Mixed Strategy – Maximin–Minimax Principle – Dominance Property.

**UNIT V STATISTICS 12**

Introduction – Descriptive Statistics – Hypothesis Testing – T-test – Analysis of Variance – **Linear Regression**.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

2. Tulsian, P. C., Vishal Pandey, Quantitative Techniques – Theory and Problems, Pearson Publications, 2006.
3. Sankar P. Iyer, Operations Research, Tata McGraw-Hill Education, 2008

**REFERENCE BOOKS:**

4. Hamdy A. Taha, Operations Research-An introduction, Pearson Education, 8th Edition / Prentice Hall of India, 2007.
5. A. Ravindren, Don T. Phillips and James J. Solberg, Operations Research Principles and Practice, John Wiley and Sons, 2nd edition, 2000.

**COURSE OBJECTIVE: (Employability)**

- The study the concept of Managerial Economics by applying a series of basic economics principles.
- To gain knowledge on issues related to optimal pricing strategies, demand forecasting, and optimal financing, appropriate hiring decisions, and investment decisions, among others, can be successfully tackled with managerial economics tools.
- To analyse how to incorporate a global perspective to their managerial economics box of tools.

**COURSE OUTCOMES:**

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

CO – 1 : Define the basic elements of managerial economics aspects of the firm.

CO – 2 : Discuss the demand analysis decisions methods as to forecasting.

CO – 3 : Apply the managerial decision functions of the firm.

CO – 4 : Examine and elaborate the basic theories related to business practices.

CO – 5 : Appraise on the decision as to environment and given

**UNIT I INTRODUCTION 12**

Introduction to Managerial Economics – Nature and scope of macroeconomics -Incremental principle – equimarginal principle – some decision rules – The risk and uncertainty theory – optimization techniques – Baumol’s sales maximization – least-cost combination.

**UNIT II DEMAND DECISIONS 12**

Demand Decisions – Demand analysis – elasticity of demand – demand forecasting – types & methods of demand forecasting – trend projection method – least square method of demand forecasting limitations & uses

**UNIT III OUTPUT DECISIONS 12**

Input-Output Decisions - Production function – Cost and managerial decision making – Cobb-Douglas production functions – Law of variable proportion – short run cost output – long run cost output – economies and dimensions of scale of production.

**UNIT IV PRICE-OUTPUT DECISIONS 12**

Price-Output Decisions - Market Environment of Price Output Decisions by the Firm and the Industry – Pricing under perfect competition – oligopoly pricing strategies and tactics – pricing – pricing in life-cycle of a product -**Profit-Maximization & Competitive Markets**-Price-Searchers, Cartels, Oligopoly-Advanced Pricing and Auctions.

**UNIT V ECONOMIC THEORY 12**

The Firm in Theory and Practice - Economic Theory of the Firm – The Behavioral Theory of the Firm - Managerial Theories of the Firm – Profit concepts & analysis – Game Theory and Asymmetric Information.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Dean Joel, Managerial Economics, PHI, New Delhi, 1976, First Edition
2. Douglas Evan J, Managerial Economics, Theory, Practice & Problems; PHF, New Delhi; 1983, First Edition

**REFERENCE BOOKS:**

1. K.K. Seo, Managerial Economics, Richard D. Irwin Inc. 1988
2. I.C. Dhingra, Essentials of Managerial Economics - Theory, Applications and Cases Sultan Chand, New Delhi, 2003

**COURSE OBJECTIVE: (Employability)**

- To think in a new and more creative way when analyzing or forecasting financial information.
- To introduce new tools common to financial statement analysis and how to use them in practical applications.
- To understand how financial statement information can help solve business problems and increase the ability to read and understand financial statements and related information.

**COURSE OUTCOMES:**

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

CO – 1 : State the importance of common accounting standards

CO – 2 : Estimate **Budgeting and Financial Reporting**

CO – 3 : Prepare **financial statements through ratio analysis.**

CO – 4 : Analyze financial reports of financial instruments, mutual funds,

CO – 5 : Analyze **cash flow and fund flow statement**

**UNIT I INTRODUCTION 12**

Introduction to Management Accounting-Need and Importance — **Accounting concepts** & conventions – Accounting Standards - Overview of IFRS and GAAP. Mechanics of Accounting: Double entry system of accounting, journalizing of transactions; ledger posting and trial balance, preparation of final accounts, **Profit & Loss Account, Balance Sheet.**

**UNIT II ANALYSIS OF FINANCIAL STATEMENTS 12**

Analysis of financial statement: **Ratio Analysis-** solvency ratios, profitability ratios, activity ratios, liquidity ratios, market capitalization ratios; Common Size Statement; Comparative Balance Sheet and Trend Analysis of manufacturing, service & banking organizations.

**UNIT III FUNDS FLOW AND CASH FLOW ANALYSIS 12**

**Fund Flow Analysis:** Meaning – uses – Preparation of Fund Flow Statement. Cash Flow Analysis (as per Accounting Standard 3): Meaning – uses – Preparation of Cash Flow Statement.

**UNIT IV CAPITAL BUDGETING AND MARGINAL COSTING 12**

Capital budgeting – meaning –steps – different types of investment decisions - Different methods – **Payback, Net Present Value, Internal rate of return,** Profitability index, Average rate of return –



Capital rationing Marginal costing – Cost Volume Profit analysis – Break Even analysis – Applications of marginal costing

**UNIT V                      BUDGETING AND FINANCIAL REPORTING                      12**

Budgeting – Different types of budgeting – Cash budget – Flexible budget.

**Financial reporting** –Concepts – users, Objectives of financial reporting – Qualitative characteristics of information in financial reporting – basic problems of disclosure – Role of SEBI in IFRS – Statutory disclosures in IFRS – Corporate reporting practices in India- Challenges in financial reporting

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. R.S.N.Pillai&Bagavathi – Management Accounting, Chand & Co. Ltd., New Delhi, 6<sup>TH</sup> edition 2002.
2. T.S.Reddy&Y.Hari Prasad Reddy – Financial and Management Accounting, Margham publications, 12<sup>TH</sup> edition 2004.

**REFERENCE BOOKS:**

1. M.Y.Khan&P.K.Jain – Management Accounting, Tata McGraw Hill publishing company Ltd., 10th edition 2004.
2. R.Narayanaswamy – Financial accounting – A Managerial Perspective, Prentice Hall India Ltd., New Delhi 5th edition, 2014.
3. Paresh Shah Basic Financial Accounting for Management, Oxford Publications, 3rd edition, 2007

**COURSE OBJECTIVE: (Employability)**

- To create the knowledge of Legal perspective and its practices to improvise the business.
- To describe the nature and classes of contracts.
- To identify the elements needed to create a contract.
- To read, interpret the various act related to business, property and business.
- To identify the rights related to copyrights and patents.

**COURSE OUTCOMES:**

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

CO – 1 : Draft a simple employment contract

CO – 2 : Arrange the basics elements of contracts and classifications of contract

CO – 3 : Improve their awareness and knowledge about functioning of local business.

CO – 4 : Improve their awareness and knowledge about functioning of global business.

CO – 5 : Gather knowledge on evolvement of business enterprises

**UNIT I INTRODUCTION 12**

Legal Aspect of Business: Introduction to Business Laws- Business Management and Jurisprudence; structure of the Indian Legal Systems: sources of Law; Manager and Legal System

**UNIT II LEGAL ASPECTS 12**

Fundamentals of contract laws-Formation of Contracts;- Principles of Contract Laws-Legality of Object Consideration; Performance of contract-Discharge of contract- breach of contract-Quasi contracts.

**UNIT III CONTRACT MANAGEMENT 12**

Contract Management-Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity-Sales of Goods- Principles of Sales of Goods.

**UNIT IV TRANSFER OF OWNERSHIP & PROPERTY 12**

Transfer of Ownership & Property-Performance of contract-Consumer Protection Laws-Law relating to Business Organizations-Partnership Trusts- Company form of organization.

**UNIT V COPYRIGHTS & TRADEMARKS 12**

Protecting the property of Business-Copyright, Trademark, secret, Geographical Indications- Alternate Dispute resolutions.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. N.D.Kapoor, Elements of Mercantile Law, S.Chand& Sons, 2013
2. P.P.S.Gogna, Mercantile Law, S. Chand & Co. Ltd., India, Fourth Edition, 2008.
3. Dr. Vinod, K. Singhanian, Direct Taxes Planning and Management, 2008.
4. Richard Stim, Intellectual Property- Copy Rights, Trade Marks, and Patents, Cengage Learning, 2008.

**REFERENCE BOOKS:**

1. Balachandran V., Legal Aspects of Business, Tata McGraw Hill, 20
2. Daniel Albuquerque, Legal Aspect of Business, Oxford, 20
3. Ravinder Kumar– Legal Aspect of Business. – Cengage Learning, 2nd Edition-2011.

**COURSE OBJECTIVE: (Skill Development)**

- To study the **communication skills**
- To apply it in practical business situations, written exercises & e-mails and letters: Re-writing and re-framing of sentences are being delivered.

**COURSE OUTCOMES:**

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

- CO – 1 : Recall the basics of **communication** and its process, elements and importance.
- CO – 2 : Evaluate the effectiveness of revising, checking and proof reading the messages.
- CO – 3 : Discuss the concept of Etiquette and significance of Interviews
- CO – 4 : Identify different types of letters to make effective internal and external correspondence
- CO – 5 : Evaluate the effectiveness of revising and checking the messages.

**UNIT I INTRODUCTION 12**

Fundamentals of **Communication**, Business Communication, The Communication Model, Communicating in teams, Overcoming the Barriers to Communication. Just-A-Minute Presentation Workshop-Jam Feedback and overcoming Glossophobia-Presentation–1 (Planning & Preparing)

**UNIT II OVERVIEW 12**

Non-verbal communication, Introducing the 7 Cs of **business writing** – Candid, Clarity, Complete, Concise, Concrete, Correct and Courteous, Writing business messages, The Stages in writing, Pre writing, Writing and Post writing.

**UNIT III REVISING AND CHECKING MESSAGES 12**

Revising to improve the content and sentence structure, Avoiding redundant phrases and words, Proof-reading to correct grammar, spelling, punctuation, format, and mechanics, Evaluating whether the message achieves its purpose.

**UNIT IV EMAIL WRITING 12**

The Process of **Writing E Mails**, Breaking it Down – The PAIBO Technique, Structuring an E Mail – The 3 T's – Introduction, Body and Conclusion, Effective Subject lines, Salutation and Signing off. Presentation–3 (Delivery)-Graded Team Presentations-Group 1-Graded Team Presentations-Group 2-Reading, listening & Questioning.

**UNIT V REPORTS AND PRESENTATIONS 12**

**Writing Business Communication basics**-Writing Reports, Proposals Business reports and Proposals, Format, visual aids and contents, **Oral Business presentations**. Individual Presentations- Group 1- Graded Individual Presentations- Group 2-Presentation feedback, Bios and Resumes, Presentation- Visual Aids.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Sanjay Kumar & Pushpalatha, Communication Skills, Oxford University Press, 2011.
2. Kaul & Asha, Effective Business Communication, PHI 2<sup>nd</sup> Edition, 2006.

**REFERENCE BOOKS:**

1. Lesikar R.V & Flatley M V, Basic Communication Skills for empowering the internet generation, Tata-McGraw Hill, 2009.
2. Sharma R C & Mohan K, Business Correspondence & Report Writing, TMH, 2009.

**COURSE OBJECTIVE: (Employability)**

- To introduce the essential concepts necessary to make effective use of the computer.
- To understand what a computer can do, how it works, and how it can be used to create documents using word processing and spreadsheet applications for personal and business use.

**COURSE OUTCOMES:**

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

CO – 1 : Describe the fundamentals of computer.

CO – 2 : Explain the basics of hardware and software.

CO – 3 : Identify different components of hardware systems.

CO – 4 : Discuss about the word processing using Microsoft Word.

CO – 5 : Demonstrate working with Spreadsheets using Microsoft Excel.

**UNIT I INTRODUCTION TO BASICS 12**

Internet Basics, Internet Safety, Hardware/Software Basics.

**UNIT II IDENTIFY COMPONENTS OF A HARDWARE SYSTEM 12**

Identify Components of a Hardware System, Cables and Assembly. Application vs. Operating Software, File Management Word Processing.

**UNIT III MICROSOFT WORD 12**

Microsoft Word, Terminology , Word Basics , Editing , Helpful Word ,Features , Formatting Literacy at the keyboard Word Processing – Microsoft Word – Continued, Formatting , Document Commands, Mail Merge , Spreadsheets .

**UNIT IV MICROSOFT EXCEL 12**

Microsoft Excel , Terminology Excel Basics , Formatting Worksheets , Organizing the Worksheet ,Formulas/Functions Spreadsheets – Microsoft Excel – Continued , Formulas/Functions, Continued , Sorting, Filters, and Templates , Charts , Presentations .

**UNIT V MICROSOFT POWERPOINT 12**

Microsoft PowerPoint , Terminology , Design Guidelines , PowerPoint Basics , Design Templates/Fonts, Presentations – Continued ,Group & Individual PowerPoint Projects , Databases – Microsoft Access Terminology , Access Basics , Creating/Modifying Forms , Finding/Ordering Data (Queries & Filters) , Creating Reports.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Turban Rainer and Potter – Introduction to Information Technology, John Wiley & Sons, 2005.
2. Richard D Gitlin, Jeremiah F Hayes, Stephen B Weinstein, Data Communications Principles, Springer, 1992

**REFERENCE BOOKS:**

1. William Stallings, Data and Computer Communications, Prentice Hall, 2007
2. Behrouz A. Forouzan, DeAnza College, Data Communications and Networking, McGraw-Hills, 2007
3. N.D.Birrell, M.A. Ould, A Practical Handbook for Software Development, Cambridge University Press, 1988
4. Sanjay Saxena, A first course in computers, Vikas Publishing House Pt. Ltd. 2000

**COURSE OBJECTIVE: (Skill Development)**

The objective of this course is to take the best teaching learning resources to all to create a levelled platform. To make use of the Indian massive online to the aspiring youth of India

- The students will select a MOOC course from the Swayam platform.
- They will spend 2 hours per week undergoing this practical MOOC course under the guidance of a faculty.
- Every course will have a minimum of 8 to a maximum of 12 assignments depending on the duration of the course.
- Assignments will be submitted as per the requirements of the course.
- The marks scored in the assignments will be taken for internal assessment marks.
- The students will appear for a final practical exam conducted by VISTAS.

**COURSE OUTCOMES:**

- CO – 1 : Understand the latest developments in the field of study
- CO – 2 : Explain the students with latest information about the field of study
- CO – 3 : Apply the skills in the business world
- CO – 4 : List the various skills gained through this course
- CO – 5 : Summarize the concepts for application



**COURSE OBJECTIVE: (Employability)**

- To teach relevant, practical and applicable human resource management skills to equip the student with the foundation competencies for working as HR practitioners in business.
- To highlight the important challenges facing managers and employees in today's business climate.
- To introduce contemporary theory and practice in modern human resource management and the range of tools and methods available to address HR challenges and problems.

**COURSE OUTCOMES:**

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

CO – 1 : Discuss the History and evolution of HRM.

CO – 2 : Explain the importance of HRM in the organizations

CO – 3 : Assess the major HRM functions and processes of HRM planning

CO – 4 : Identify strategic HR planning and the HRM process to the organization's strategic.

CO – 5 : Explain how training helps to improve the employee performance.

**UNIT I HUMAN RESOURCE MANAGEMENT 12**

Meaning, Scope & Objectives of HRM, Evolution of HRM, Difference between PM & HRM, HRM function's, HR Policy & procedures. Competitive challenges influencing HRM Qualities & qualification of HR Manager, Line & Staff Roles and Responsibilities of HR Manager/Departments, HR as a factor of Competitive Advantage

**UNIT II HUMAN RESOURCE PROCESS 12**

Human Resource Planning – Job Analysis and Design -Recruitment - Selection and placement process – Types of interviews, Placement, Orientation & Induction, Determining training needs analysis, Delivery Methodology, Evaluation, Capacity Building.

**UNIT III MANAGING CAREERS 12**

Career Planning & Development vs. Employee development. Career stages – Career Choices and Preferences, Mentoring and Coaching, Time Management. Employee Separations, Downsizing & Outplacement, HRIS, Fundamentals of Industrial Relations and Fundamentals of Labour Laws

**UNIT IV PERFORMANCE MANAGEMENT 12**

Purposes of Performance Management, Performance Appraisal Methods, limitations and problems, Punishment and Promotion, Job evaluation. Wage & Salary fixation, incentives, bonus, ESOPs. Insurance, Fringe Benefits.

**UNIT V CONTEMPORARY ISSUES IN HRM 12**

Talent Management, Competency Mapping, Industrial Relations – Health & Safety issues, grievance handling, D Work Life Balance, Quality of Work Life, HRD in India, International HRM

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Aswathappa.K, Human Resource Management, Text and Cases, Tata McGraw Hill, New Delhi. 2014
2. Gupta. S.C, Advanced Human Resource Management, Strategic Perspective, ANE Books Pvt. Ltd, New Delhi.2009.

**REFERENCE BOOKS:**

4. Angela Baron and Michael Armstrong, Human Capital Management (Achieving Added Value through People), Kogan Page Limited, United States. 2007
5. Anuradha Sharma and AradhanaKhandekar Strategic Human Resource Management. Response Books, New Delhi. 2006
6. Beer et al, Managing Human Assets, The Free Press: Maxwell Mac MillanInc, New York. 1984

**COURSE OBJECTIVE: (Employability)**

- To understand the basics of market, marketing, marketing environment and business environment and its domain knowledge.
- To understand the core concepts in marketing concepts, critical thinking, problem solving an analysis

**COURSE OUTCOMES:**

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

CO – 1 : Relate the corporate function of marketing.

CO – 2 : Outline the macro and micro environment in the company's marketing function.

CO – 3 : Differentiate the consumer and institutional buyer behaviour.

CO – 4 : Compare and contrast goods and services.

CO – 5 : Define the target segments for the products

**UNIT I INTRODUCTION 12**

Understanding the term Marketing-Importance of Marketing-Scope of Marketing-Core Concepts-Company Orientation toward marketplace-Marketing and Customer Value-Marketing Environment-Micro and Macro Environment.

**UNIT II CONSUMER MARKETS 12**

Consumer Markets: Model of Consumer Behavior, Seven Os Structure, Factors Affecting Consumer Behavior, Stages in the Adoption Process, Industrial Markets -Characteristics, Industrial Buyer Behavior, Service Marketing-Characteristics-Marketing Strategy.

**UNIT III MARKET SEGMENTATION 12**

Market Segmentation: Levels and Bases for Segmentation, Segmenting Consumer Markets, Business Markets, Market Targeting -Evaluating Market Segments -Product Positioning for competitive advantage, Positioning Strategies.

**UNIT IV MARKETING PROGRAMME 12**

Marketing Programme: Decisions Involved in Product, Branding, Packaging, Product Extension Strategies - Product Line and Product Mix Decisions, New Product Development, Product Life Cycle. Pricing Products, Strategies, Distribution -Channels, Channel Management Decisions,

Promotion Mix - Advertising, Sales Promotion, Public Relations, Personal Selling, Promotion Decisions, Place.

**UNIT V                      MARKETING RESEARCH**

**12**

**Marketing Research and Control: Marketing Research** – Course Objectives: & Scope – Research designs – research procedure – data types & sources, sampling techniques, analysis & reporting. Demand Measurement and **Sales Forecasting Methods**, Estimating Current and Future Demand. Annual Plan Control, Efficiency Control, Profitability Control and Strategic Control, Marketing Audit, Online Marketing. Ethics in marketing.

**Case study: Marketing strategy Implementation; Market Segmentation / Targeting / Positioning; Product Levels, Pricing**

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Philip Kotler and Kevin Lane Keller, Marketing Management, PHI 14th Edition, 20 2. KS Chandrasekar, “Marketing management-Text and Cases”, Tata McGraw-Hill-Vijaynicole, First edition, 2010.
2. Lamb, Hair and McDaniel, Marketing, 8th Edition, Thomson Learning, 2005, RajanSaxena, Marketing management, TMH, 2006.

**REFERENCE BOOKS:**

1. Keith Blois, Marketing, Oxford University Press, 2005.
2. Ramaswamy V.S. Namakumari S, Marketing Management - The Indian Context, Macmillan India Ltd, 2006.

**COURSE OBJECTIVE: (Employability)**

- To provide foundational knowledge associated with the operations management
- To describe the various techniques for implementation of operations management based on the forecasting, planning, quality and inventory

**COURSE OUTCOMES:**

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

CO – 1 : Explain the fundamental concepts of operations and production.

CO – 2 : Understand the types of production systems.

CO – 3 : Explain the fundamental concepts of layout and location.

CO – 4 : Predict the demand using the different forecasting techniques.

CO – 5 : Explain the fundamental concepts of various planning.

**UNIT I INTRODUCTION 12**

History – Production Vs. Operations – Production Systems – Types of Production Systems – Plant Location – Factors influencing location – Site selection – Plant Layout – Types of Layout – Assembly Line Balancing

**UNIT II FORECASTING 12**

Introduction – Forecasting technique: Qualitative and Quantitative – Delphi Method – Regression Analysis – Time series analysis – Application – Forecasting Error

**UNIT III PLANNING 12**

Capacity Planning – Aggregate Production Planning (APP) – Disaggregation: Master Production Scheduling (MPS) – Material Requirement Planning (MRP) – Production Planning and Control (PPC)

**UNIT IV QUALITY 12**

Evolution of Quality – Quality Definition and Contributions by Deming, Juran, Crosby, Feiganbaum, Ishikawa and Taguchi – Process Quality Vs. Product Quality – Statistical Quality Control – Statistical Process Control

**UNIT V INVENTORYMANAGEMENT 12**

Inventory Management – Types of Inventory Models – Basic EOQ Model – Analysis: ABC, VED, FSN – Push Vs. Pull system – Just-In-Time (JIT) Vs. Material Requirement Planning (MRP)

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Ajay Garg. Production and Operations Management, Tata McGraw-Hill Education, 2017.
2. Stevenson J. William, Operations Management, 9th Edition, TMH, 2007.

**REFERENCE BOOKS:**

1. Roger Schroeder, Susan Goldstein, M. Johnny Rungtusanatham. Operations Management, McGraw-Hill Education, 2010.
2. Lee J. krajewski and Larry P.Ritzman, 2007, Operations Management strategy and analysis, 9th Edition, Pearson Education / Prentice Hall of India, 2007.

**COURSE OBJECTIVE: (Employability)**

- To explain the various technological aspects that are described in the different logistical background
- To explain the real time description updated technologies in the logistics sector and supply chain industry

**COURSE OUTCOMES:**

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

CO – 1 : Assess the eSCM, benefits and communication networks.

CO – 2 : Analyze the various e-commerce models.

CO – 3 : Summarize the classification of enterprise information systems.

CO – 4 : Analyze the framework for managing supply chain information.

CO – 5 : Compare the various enterprise architectures.

**UNIT I ELECTRONICSCM,COMMUNICATIONNETWORKS 12**

Introduction eSCM - eSCM framework - Key success factors for eSCM - Benefits of eSCM - Positioning information in Logistics - Strategic information linkage - Supply chain communication networks - Role of communication networks in supplychains - Overview of telecommunication networks –EDI - Data security in supply chain networks - Overview of internet able models

**UNIT II ENTERPRISE INFORMATION SYSTEMS 12**

Overview of enterprise information systems - Information functionality and principles - Introduction enterprise information systems -Classification of enterprise information systems - Information architecture -Framework for managing supply chain information - Describe ion on popular enterprise application packages -Benefits of enterprise information systems

**UNIT III SCM SYSTEMS DEVELOPMENT 12**

Stakeholders in supply chain information systems - Stakeholders in SCM - Stakeholders in supply chain information systems - Information systems development- Logistics information systems design- Defining enterprise architecture - Choosing appropriate system development methodologies - Adopting relevant systems development model

**UNIT IV DEPLOYMENT AND MANAGEMENT 12**





**COURSE OBJECTIVE: (Employability)**

- To describe the various streams of the supply chain
- To describe the drivers of the supply chain
- To describe the concepts employed in the supply chain
- To explain about the strategies employed in the supply chain

**COURSE OUTCOMES:**

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

CO – 1 : Classify logistics and supply chain management

CO – 2 : Analyze supply chain dynamics and various issues of supply chain performance.

CO – 3 : Develop the supply chain strategies.

CO – 4 : Select the various drivers of supply chain performance.

CO – 5 : Design about sales and operations planning process

**UNIT I CONCEPTS OF SUPPLY CHAIN 12**

Service and manufacturing supply chain dynamics - Evolution of supply chain management - Multiple views and flows - Service supply chains - Manufacturing supply chains - Measures of supply chain performance - Bullwhip effect

**UNIT II SUPPLY CHAIN PROCESSES AND STRATEGIES 12**

Integrated supply chains design - Customer relationship process - Order fulfillment process - Supplier relationship process - Supply chain strategies - Strategic focus - Mass customization - Lean supply chains - Outsourcing and offshoring - Virtual supply chains.

**UNIT III SUPPLY CHAIN PERFORMANCE DRIVERS 12**

Drivers of supply chain performance - Logistics drivers (Location, inventory and transportation) - Cross functional drivers (Pricing, information and sourcing) – Forecasting introduction - Framework for a forecast system - Choosing right forecasting technique - Judgment methods (Composite Forecasts, Surveys, Delphi Method, Scenario Building, Technology Forecasting, Forecast by Analogy) - Causal methods (Regression Analysis - Linear & Non-Linear Regression, Econometrics) - Time series analysis (Autoregressive Moving Average (ARMA), Exponential Smoothing, Extrapolation, Linear Prediction, Trend Estimation, Growth Curve, Box-Jenkins Approach) – CPFR

**UNIT IV SALES AND OPERATIONS PLANNING 12**

Introduction to **Sales and operations planning** - Purpose of sales and operations plans - Decision context - Sales and operations planning as a process - Overview of decision support tools

**UNIT V                      RESOURCE PLANNING AND SCHEDULING                      12**

Enterprise resource planning - Planning and control systems for manufacturers - Materials requirement planning - **Drum – Buffer – Rope system** – Scheduling - Scheduling service and manufacturing processes - Scheduling customer demand - Scheduling employees - Operations scheduling.

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

1. Sunil Chopra, Peter Meindl, Supply Chain Management: Strategy, Planning, and Operation, Pearson 6th Edition, 2016.
2. Janat Shah, Supply Chain Management, Pearson Education India, 2nd Edition 2016
3. Li tong group announces global framework agreement with VEON. 2018

**REFERENCE BOOKS:**

1. Paul Schönsleben, Integral Logistics Management: Planning and Control of Comprehensive Supply, ACRC Press Company, 2016.
2. David Frederick Ross, Distribution Planning and Control: Managing in the Era of Supply Chain last edition, Springer, 2015.

**COURSE OBJECTIVE: (Employability)**

- To get clear view about the concepts employed in the different logistical background a
- To explain the process related the logistical industry
- To explain the different drivers of logistics.

**COURSE OUTCOMES:**

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

CO – 1 : Predict the scope of logistics and supply chain management

CO – 2 : Identifying core and support activities in logistics.

CO – 3 : Representing the various issues in logistics integration.

CO – 4 : Testing the logistics channel participants and supply chain relationships.

CO – 5 : Constructing the logistics re-engineering.

**UNIT I INTRODUCTION LOGISTICS 12**

Introduction – Scope of logistics in business, Logistics and Supply Chain Management, Core and support activities of logistics; Logistical integration hierarchy; Integrated Logistics; Operating objectives; Barriers internal integration; Logistical performance cycles; Supply chain relationships – Channel participants, Channel structure, Basic functions, Risk, power and leadership.

**UNIT II LOGISTICS SYSTEM DESIGN 12**

Logistics reengineering, Logistical environmental assessment, Time based logistics, Anticipatory and Response based strategies, Alternative strategies, Logistical operational arrangements, Time based control techniques; Integration theory – Location structure, Transportation economies, Inventory economies, Formulating logistics strategy.

**UNIT III LOGISTICS STRATEGY AND PLANNING 12**

Logistics planning triangle, Network appraisal; Guidelines for strategy formulation – total cost concept, Setting customer service level, Setting number of warehouses in logistics system, Setting safety stock levels, Differential distribution, Postponement, Consolidation, Selecting proper channel strategy.

**UNIT IV INVENTORY AND PURCHASING 12**

Review – Inventory and purchasing decisions; Multi facility location problems – Exact method, Heuristic methods, other methods; Logistics planning and design – Feasibility analysis, Project



**COURSE OBJECTIVE: (Employability)**

- To explore the fundamental concepts of transportation and distribution management
- To gain knowledge in network planning, routing and scheduling and application of IT in transportation and distribution management.

**COURSE OUTCOMES:**

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

- CO – 1 : Develop the various distribution **network models**
- CO – 2 : Plan for the different **distribution networks**
- CO – 3 : Gain knowledge about the distribution requirements planning.
- CO – 4 : Illustrate on the various **modes of transportation and the selection decisions.**
- CO – 5 : Identify the issues involved in international transportation.

**UNIT I DISTRIBUTION 9**

Role of **Distribution in Supply chain, Distribution channels** – Functions, resources, Operations in Distribution, Designing Distribution network models - its features - advantages and disadvantages

**UNIT II PLANNING 9**

**Distribution network planning**, Distribution network decisions, Distribution requirement planning (DRP)

**UNIT III TRANSPORTATION 9**

Role of Transportation in Logistics and Business, Principle and Participants-Scope and relationship with other business functions, **Modes of Transportation** - Mode and Carrier selection, Routing and scheduling.

**UNIT IV TRANSPORTATION 9**

International transportation, **Carrier, Freight and Fleet management**, Transportation management systems-Administration, Rate negotiation, Trends in Transportation.

**UNIT V INFORMATION TECHNOLOGY (IT) 9**

Usage of IT applications -E commerce – ITMS, Communication systems-**Automatic vehicle location** systems, Geographic information Systems.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. David Lowe, Lowe's Transport Manager's and Operator's Handbook 2019
2. Janat Shah, Supply Chain Management, Pearson Education India, 2nd edition 2016
3. Raghuram and N. Rangaraj, Logistics and Supply chain Management - Leveraging Mathematical and Analytical Models: Cases and Concepts, New Delhi: Macmillan, 2000.

**REFERENCE BOOKS:**

1. Sunil Chopra, Peter Meindl, Supply Chain Management: Strategy, Planning, and Operation, Pearson, 6th edition 2014.
2. Michael B Stroh, Practical Guide to Transportation and Logistics, Logistics Network, 2006.
3. Alan Rushton, John Oxley, Handbook of Logistics & Distribution Management, Kogan Page Publishers, 2006.

**COURSE OBJECTIVE: (Employability)**

- To make student able to build an understanding of the fundamental concepts of ERP systems, their architecture, and working of different modules in ERP. Students will also be develop and design the modules used in ERP systems, and can customize the existing modules of ERP systems.
- To understand and able to build an understanding of the fundamental concepts of ERP system.
- To learn ERP architecture, and working of different modules in ERP.
- To comprehend to create and plan the modules utilized in ERP frameworks, and can redo the current modules of ERP frameworks.

**COURSE OUTCOMES:**

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

CO – 1 : Understand the technical aspects of ERP systems

CO – 2 : Analyze the module in distinguishing the characteristics of ERP software

CO – 3 : Evaluate the concepts of reengineering and how they relate to ERP system implementation

CO – 4 : Application of typical functionality in an ERP system

CO – 5 : Evaluate the ERP implementation packages

**UNIT I INTRODUCTION 12**

Introduction to ERP, Evolution of ERP, Reasons for the growth of ERP, Scenario and Justification of ERP in India, Evaluation of ERP, Various Modules of ERP, Advantage of ERP.

**UNIT II OVERVIEW OF ENTERPRISE 12**

An overview of Enterprise, Integrated modules, Business Process Mapping for ERP Module Design, Organizational Environment and its selection for ERP Implementation.

**UNIT III ERP AND RELATED TECHNOLOGIES 12**

ERP and Related Technologies, Business Process Reengineering (BPR), Management Information System (MIS), Executive Information System (EIS), Decision support System (DSS), Supply Chain Management (SCM)

**UNIT IV ERP MODULES 12**





**COURSE OBJECTIVE: (Employability)**

- To develop a research orientation among the students and acquaint them with fundamentals of research methods.
- To have a knowledge about research and how research is conducted.
- To understand the data collection methods the sampling methods and the data analysis method.
- To create awareness about the importance of research in all fields.

**COURSE OUTCOMES:**

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

CO – 1 : Demonstrate how research to be conducted in a systematic way

CO – 2 : Develop hypothesis and understand procedure for experimenting hypothesis

CO – 3 : Construct a questionnaire, interpret the results with the help of various statistical tools

CO – 4 : Analysis the data using the SPSS software

CO – 5 : Discuss the Researchers Ethical code and plagiarism software tools

**UNIT I INTRODUCTION 12**

Introduction to Research – Business & Management Research – Research Characteristics – Research Approaches – Types of Research - Significance – Research process – characteristics of good research – Types of Research – Problems in research – identifying research Problem- Theoretical-Framework / 'Literature Survey- Exploratory Descriptive Studies – Cross Sectional & longitudinal studies.

**UNIT II RESEARCH DESIGN AND MEASUREMENT 12**

Research design – Definition – types of research design – Exploratory, Descriptive, Causal, and Formulation of hypothesis – different types of experimental design-. Scaling techniques meaning, types of scales–Hypothesis testing Statistical significance, statistical test procedure.

**UNIT III SAMPLING AND DATA COLLECTION 12**

Sampling Techniques – Probability and Non-probability sampling methods- Data Collection – Types of data –Primary and Secondary data – Methods of primary data collection –Observation, Interview, Questionnaire and Schedule – Construction of questionnaire – pilot study – case study

**UNIT IV DATA PREPARATION AND ANALYSIS 12**

Data Preparation – editing – Coding –Data entry-Test of significance – Assumptions about Parametric and nonparametric tests. Parametric tests -Introduction ANOVA- Application of Statistical software for data analysis.

**UNIT V**                      **REPORT DESIGN AND WRITING**                      **12**

Introduction - Research Report - Research Proposal – Different types – Contents of report – Important Parts – Title, Table of Contents – Synopsis, bibliography - Introductory Section – Research Design - Result Section – Recommendation & Implementation Section

**TOTAL: 60 HOURS**

**TEXT BOOKS:**

3. Kothari, C.R., Research Methodology”, Methods and Techniques, New Age International, 6th Edition, 2010.

**REFERENCE BOOKS:**

5. Panneerselvam, R., “Research Methodology”, Prentice-Hall of India, New Delhi, 7<sup>th</sup> Edition, 2004.
6. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods,11<sup>th</sup> Edition, Tata McGraw Hill, New Delhi, 20 .

**COURSE OBJECTIVE: (Employability)**

- To explain the movement of cargo from vendor to end user across the globe
- To increase the value in product.
- To add value that includes improved quality and product accessibility across the world at optimal cost

**COURSE OUTCOMES:**

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

CO – 1 : Clarifying the various basic issues in international transportation.

CO – 2 : Carrying out the multimodal and intermodal transportation.

CO – 3 : Coordinating the freight costing and pricing.

CO – 4 : Monitoring about risks and insurance in ocean transportation.

CO – 5 : Designing about air mode of transportation.

**UNIT I TRANSPORTATION 9**

Meaning and Significance of International Transportation- Role of transportation in integrated logistics process, Basic principles of international transportation, Parties involved in international transportation, Significance of Transportation, Modes of International Transportation- Criteria for Selection of different modes of transportation, Multi Modal Transportation. Freight costing and pricing- Classification of Costs associated with Transportation process, Cost Strategies, Factors affecting, Transportation rate

**UNIT II OCEAN MODE OF TRANSPORTATION 9**

Features, Types and Terminology- Features, Advantages and Disadvantages of using sea mode, Classification of ships, Shipping Methods, S wage in Ship, Major Sea-routes around the world, Important Terminology, Freight, Parties and Perils Associated with Sea Mode- Parties involved in sea mode of transportation- Ocean Freight- Types of Sea Freight, Calculation of Freight; Maritime Risks, Marine Insurance.

**UNIT III AIR AND FREIGHT TRANSPORTATION 9**

Features, Types and Terminology- Significant Features, Advantages and Constraints of Air transportation, Types of Carriers, Air Cargo Chain Operators, Legal Aspect of Carriage of Goods by Air; Freight Structure and \ organizational set up- ULD Concept, Air Cargo Tariff Structure- Air

Freight Classification, Air Freight Calculation, Factors Affecting Air Freight Rates, Air Freight Consolidation, Role of IATA and TIACA in Air Cargo Industry.

**UNIT IV LAND MODE 9**

Transportation by Rail and Road, Meaning of Land mode of transportation, International Road Transportation, International Road Network, Advantages and Constraints of International Road Transport, International Rail Transportation, Advantages and Constraints of International Rail Transport; Pipeline as a Mode of Transportation and Concept of Multi-modalism, Concept of Containerization.

**UNIT V EXIM PROCEDURE AND DOCUMENTATION 9**

Export procedure in India, Import Procedure in India, Transport Documents, Mate Receipt, Bill of Lading – features and types, Air-way Bill, Lorry Receipt; INCOTERMS 2013; Packaging and Labeling for Exports- What is packaging? Functions of Packaging, Labeling the export packages, Packaging for different modes of transportation, Rail Receipt.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Ewan Roy, what is global supply chain management? by Trade Ready, ,2017
2. Altekar, supply chain management,and concepts PHI 2013.

**REFERENCE BOOKS:**

1. R.B. Handfield and E.L. Nochols, Jr. Introduction Supply Chain Management. Prentice Hall, 2<sup>nd</sup> edition (November 30, 2014)
2. Sunil Chopra and Peter Meindel. Supply Chain Management: Strategy, Planning, and Operation, Prentice Hall of India, 6<sup>th</sup> Edition 2013.

**COURSE OBJECTIVE: (Employability)**

- To explore the fundamental concepts of Global Procurement Management.
- To gain knowledge in Strategic Sourcing.

**COURSE OUTCOMES:**

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

CO – 1 : Summarize the Purchasing policies.

CO – 2 : Understand the Methods of Supplier evaluation and selection.

CO – 3 : Identify the types of Process mapping tools.

CO – 4 : Discuss about Price analysis.

CO – 5 : Judging the Contract management.

**UNIT I PURCHASING OPERATIONS AND STRUCTURE 9**

The purchasing and supply process - Introduction to purchasing and SCM - Strategic supply management roles and responsibilities - Improving the procure to pay process - Approval, contract and purchase order preparation - Types of purchases - Purchasing policy and procedures -Policy overview - Purchasing policies - Purchasing procedures.

**UNIT II SUPPLY MANAGEMENT INTEGRATION AND STRATEGIC SOURCING 9**

Internal integration - External integration - The critical role of cross functional scouring teams - Integrating supply management, engineering, and suppliers to develop new products and services – purchasing/supply management organizational structure - Purchasing position within the organizational structure - Supply management and commodity strategy development - Aligning supply management and enterprise objectives - Category strategy management - Types of supply management strategies - E-reverse auctions - Evolving sourcing strategies - Supplier evaluation and selection - Supplier evaluation and selection process - Key supplier evaluation criteria - Developing a supplier evaluation and selection survey - Reducing supplier evaluation and selection cycle time.

**UNIT III TOOLS AND TECHNIQUES FOR PURCHASING ANALYSIS 9**

Project management - Learning – curve analysis - Value analysis / value engineering - Quantity discount analysis - Process mapping - Supplier quality management Supplier management and

development - Supplier performance measurement - Rationalization and optimization: Creating a manageable supply base - Supplier development: A strategy for improvement - Overcoming the barriers to supplier development - Managing supply base risk - Managing sustainability in the supply base.

**UNIT IV STRATEGIC COST MANAGEMENT 9**

A structured approach to cost reduction - Price analysis - Cost analysis techniques - Total cost of ownership - Collaborative approaches to cost management

**UNIT V NEGOTIATION AND CONTRACTING 9**

Negotiation - The negotiation framework in supply management - Negotiation planning - Power in negotiation - Concessions, negotiation tactics, win-win negotiation - Internal negotiation - Impact of electronic media on negotiations - Contract management - Elements of contract - How to negotiate and write contract - Types of contract - Long-term contracts in alliances and partnerships - Nontraditional contracting - Settling contractual disputes.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Parasram, "In Cotermis Exports Coartind and Pricing with Practical Guide to in Co-Terms, 1s Edition, Jain Book, 6th Edition, 2010.
2. M I Mahaian, "Impart Do It Yourself", Jain Book, 7th Edition, 2007.

**REFERENCE BOOKS:**

1. John Wiley, "Global Operations &Logistics:Text& Cases-Dornier", Pearson Education, 2nc Edition 2013.
2. David Simchi-Levi, "Designing & Managing Supply Chain-Concepts, Strategies", Tata McGraw- Hill, 8th Edition, 2000.

**COURSE OBJECTIVE: (Employability)**

- To help the students in explaining the significance of Warehousing.
- To provide timely customer service,
- To keep track of items so they can be found readily & correctly
- To minimize the total physical effort and minimize the cost of moving goods.

**COURSE OUTCOMES:**

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

CO – 1 : Summarize the basics of warehousing.

CO – 2 : Justify the various types of warehouses.

CO – 3 : Compare the various costs involved in a warehouse.

CO – 4 : Constructing the inventory management in the supply chain.

CO – 5 : Design the use of warehouse management systems manage warehouse operations.

**UNIT I INTRODUCTION WAREHOUSING 9**

Introduction – Warehousing – Warehousing Decisions – Warehouse Operations – WMS –Types of Warehouses – Warehouse Layout – Functions - Equipment and components – Centralized & Decentralized – Warehouse operations and Storage Systems – Warehousing Cost Analysis

**UNIT II INVENTORY MANAGEMENT 9**

Concepts – Role in Supply Chain – Role in Competitive Strategy – Independent Demand Systems – Dependent Demand Systems – Functions – Types – Cost – Need for Inventory –Just in Time- Inventory Control – ABC Inventory Control – Bull Whip Effect

**UNIT III MANAGING WAREHOUSE EFFICIENCY 9**

Order picking – Picking methods-pick path – Measuring Warehouse Efficiency – Warehouse Workforce design and development – crossdocking

**UNIT IV UNITIZATION, SHIPPING AND PACKAGING 9**

Container optimization-Container loading and void fill-Weigh checking-Automated loading-Dock management-packaging-types-cost- and labelling functions and design

**UNIT V DISTRIBUTION FACILITIES MANAGEMENT 9**

Material Handling Systems–Types of Material Handling Equipment – Modern Warehousing – ASRS & their Operations – Bar Coding-Technology & Applications in Logistics Industry – RFID Technology & Applications – Types of Conveyors – Refrigerated Warehouses

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Frazelle, World Class Warehousing & Material Handling, Tata McGraw-Hill, 2<sup>nd</sup> edition 2015.
2. Vinod.V.Sople, Logistics Management, Pearson Education, 3<sup>rd</sup> edition 2012.
3. Arnold, Introduction Materials Management, Pearson Education, 7<sup>th</sup> edition 2011.

**REFERENCE BOOKS:**

1. Frazelle, World Class Warehousing & Material Handling, Tata McGraw-Hill, 2<sup>nd</sup> edition 2015.
2. Satish K. Kapoor and PurvaKansal, Basics of Distribution Management - A Logistical Approach, Prentice Hall, 1<sup>st</sup> Edition 2004
3. Satish K. Kapoor and PurvaKansalMarketing, Logistics - A Supply Chain Approach ,
4. Pearson Education, 2003



**COURSE OBJECTIVE: (Employability)**

- To prepare students successfully implement a contract logistics and closed supply chain in Retail, FMCG and Automobile sectors.
- To explain the concept and principle of contract logistics and closed supply chain

**COURSE OUTCOMES:**

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

- CO – 1 : Identify basics of contract logistics.
- CO – 2 : Recall about the third party logistics providers.
- CO – 3 : Respond about closed loop supply chains.
- CO – 4 : Determine the business and markets for closed loop supply chains.
- CO – 5 : Generate the emerging trends in closed loop supply chains.

**UNIT I CONTRACT LOGISTICS 9**

**Third party logistics industry overview** - A framework for strategic alliances - Evolution of contract logistics - Types of third party logistics providers – Auto, FMCG and Retail-Third party services and integration

**UNIT II CLOSED LOOP SUPPLY CHAINS AND LOGISTICS 9**

Introduction **closed loop supply chains and logistics** – Logistics and closed loop supply chain service - Overview of return logistics and closed loop supply chain models – Introduction product returns - Product Vs Parts returns - Strategic issues in closed loop supply chains

**UNIT III BUSINESS AND MARKET 9**

Overview - Introduction life cycle management - Trends and opportunities – Au Warranty management, return process and benchmarks - Market overview - Reasons for using reverse logistics - General characteristics - Consumer goods Depot repair and value added services - Operating dynamics - Competitive evaluation - Secondary markets and final disposal.

**UNIT IV EMERGING TRENDS 9**

Emerging trends in Retail, FMCG and Au sectors- Systems and technology - For consumer goods operations, High tech logistics system - Impact and value of advanced logistics -

**UNIT V MANAGING PROCESSES 9**

Managing processes - Step by step process - Use of third party service providers - Additional factors  
– Contemporary issues – Make in India and its impact on Countries GDP and Economic Growth

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Janat Shah, Supply Chain Management: Text and Cases, 2<sup>nd</sup> Edition 2016 .
2. Janat Shah, Supply Chain Management: Text and Cases, 2<sup>nd</sup> Edition 2017.
3. John Manners-Bell, Logistics and Supply Chains in Emerging Markets, Kogan Page, 2017.

**REFERENCE BOOKS:**

1. Coyle, John Joseph. (2017). Supply chain management: a logistics perspective. 10th ed. Australia: Cengage Learning. HD 38.5 C69 2017
2. Abbey, J. D., & Guide Jr, V. D. R. (2017). Closed-loop supply chains: a strategic overview Sustainable Supply Chains (pp. 375-393): Springer

**COURSE OBJECTIVE: (Employability)**

- To introduce the fundamental Lean manufacturing and Six Sigma principles.
- To explain the tools and technique for the implementation of Lean manufacturing and Six Sigma.
- To explain the synergy of Lean manufacturing and Six Sigma.

**COURSE OUTCOMES:**

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

CO – 1 : Recognize the principle and wastages of lean.

CO – 2 : Design the current and future state mapping of Value Stream Mapping (VSM)

CO – 3 : Record knowledge of the concepts of TQM and Six Sigma.

CO – 4 : Determine the DMAIC based on the implementation of tools and techniques.

CO – 5 : Record knowledge on the lean six sigma for successful implementation.

**UNIT I LEAN MANUFACTURING: PRINCIPLE AND TOOLS 9**

Evolution of Just-In-Time and Lean Manufacturing – Principle – Seven wastes – Just-In-Time (JIT) – One-Piece or Continuous Flow – Kanban or Pull System – Basic tools such as 5S, Kaizen, Poka-Yoke and Single-Minute Exchange of Dies (SMED)

**UNIT II TECHNIQUE: VALUE STREAM MAPPING 9**

Value Stream Mapping (VSM) – Material and Information Flow – VSM symbols – Identification of Product or Product Family – Current-State Mapping – Future-State Mapping by key questions – Plan and Implementation.

**UNIT III SIX SIGMA 9**

Evolution – TQM vs. Six Sigma – What is Six Sigma – Six Sigma methodologies Such as DMAIC, DFSS – Six Sigma Belts.

**UNIT IV DMAIC: TOOLS 9**

Define – Measure – Analyze – Improve – Control – SIPOC model – VOC – CTQ – Seven Quality or SPC tools such as Pareto Analysis, Cause and Effect Diagram, Control Charts etc. – Process Capability Analysis such as  $C_p$ ,  $C_{pk}$  – Design of Experiments (DoE).

**UNIT V LEAN SIX SIGMA 9**

The Synergy of Six Sigma and Lean – Lean Six Sigma – Principle – Lean tools in DMAIC – Implementation of Lean Six Sigma.

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Feld, W. M., Lean Manufacturing tools, Techniques and How to Use Them, St. Lucie Press, Florida, 2000.
2. Michael L. George, et al., The Lean Six Sigma Pocket tool book: A Quick REFERENCES Guide Nearly 100 tools for Improving Process Quality, Speed, and Complexity, McGraw-Hill, 2005.

**REFERENCE BOOKS:**

1. Rother, M. and Shook, J., Learning see: Value stream mapping create value and eliminate muda, The lean enterprises institute Brookline, Massachusetts, USA, 1999.
2. Liker, J., The yota Way: 14 Management Principles from the World's Greatest Manufacturer, McGraw-Hill Education, 2004.
3. Pyzdek, T. and Keller, P. A., The Six Sigma Handbook, Fourth Edition, McGraw-Hill Professional, 2014.

**COURSE OBJECTIVE: (Employability)**

- To explain the Project Management based on the Project Management Body of Knowledge (PMBOK®)
- To explain the tools and techniques for identification, planning and analysis of Project.

**COURSE OUTCOMES:**

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

CO – 1 : Identify the project parameters based on the Project Management Process.

CO – 2 : Construct the project charter.

CO – 3 : Formulate the Work Breakdown Structure (WBS).

CO – 4 : Identify the Network technique for Project Management.

CO – 5 : Evaluate the cost control using Earned Value Analysis (EVA).

**UNIT I INTRODUCTION 9**

Project Vs. Operations – Project: Definition – Characteristics of Projects – Project Management Body of Knowledge (PMBOK®) – Project Life Cycle – Project Management Process or Process Groups – Project Knowledge Areas – Mapping of the Project Management Processes to the Project Management Process Groups and the Knowledge Areas – Project Management Software.

**UNIT II INTEGRATION & SCOPE MANAGEMENT 9**

Project Integration Management – Process of Project Integration Management – Project Initiation: Project Selection, Project charter and Project Scope Statement; Project Scope Management – Process of Project Scope Management – Project Planning: Scope Planning, Work Breakdown Structure (WBS)

**UNIT III TIME MANAGEMENT 9**

Project Time Management – Process of Project Time Management – Project Planning: Precedence Diagramming Method (PDM) – Project Scheduling: Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), Gantt Chart

**UNIT IV COST MANAGEMENT 9**

Project Cost Management – Process of Project Cost Management: Cost Estimating, Cost Budgeting and Cost Control – Earned Value Analysis (EVA) or Earned Value Management (EVM)

**UNIT V QUALITY MANAGEMENT 9**

Project Quality Management – Process of Project Quality Management: Quality Planning, Quality Assurance and Quality Control – **Seven Basic Tools of Quality**: Pareto Analysis, Cause and Effect Diagram, Checklist or Checksheet, Process Flow Chart, Histogram, Scatter Diagram and Control Charts

**TOTAL: 45 HOURS**

**TEXT BOOKS:**

1. Project Management Institute. Guide to the Project Management Body of Knowledge (PMBOK® Guide), Sixth Edition, 2017.
2. Cynthia Snyder Stackpole. A Project Manager's Book of Tools and Techniques – A Companion to the PMBOK® Guide, Wiley Publications, 6th edition, 2018.

**REFERENCE BOOKS:**

1. James W. Marion. Project Management: A Common-Sense Guide to the Pmbok Program, Part Two-Plan and Execution, MOMENTUM Press, 2018.
2. George T. Edwards. Project Management Fundamentals: A practical overview of the PMBOK, Blue Crystal Press, 2012.
3. Cynthia Snyder Stackpole. A User's Manual to the PMBOK Guide, Wiley Publications, 5th edition, 2013.

**COURSE OBJECTIVE: (Employability)**

The internship module aims to provide the student with:

- A practice-oriented and ‘hands-on’ working experience in the real world or industry, and to enhance the student’s learning experience.
- An opportunity to develop a right work attitude, self-confidence, interpersonal skills and ability to work as a team in a real organisational setting.
- An opportunity to further develop and enhance operational, customer service and other life-long knowledge and skills in a real world work environment.
- Pre-employment training opportunities and an opportunity for the company or organisation to assess the performance of the student and to offer the student an employment opportunity after his/her graduation, if it deems fit.

**COURSE OUTCOMES:**

At the end of the course, a student will be able to

CO – 1: Understanding the application of knowledge and skill sets acquired from the course and workplace in the assigned job function/s.

CO – 2: Applying real life challenges in the workplace by analyzing work environment and conditions, and selecting appropriate skill sets acquired from the course.

CO – 3: Create critical thinking and problem-solving skills by analyzing underlying issue/s to challenges.

CO – 4: Understanding the ability to harness resources by analyzing challenges and considering opportunities.

CO – 5: Understanding appreciation and respect for diverse groups of professionals by engaging harmoniously with different company stakeholders.

**PROJECT OUTCOMES: (Employability)**

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

- CO – 1 : Create and develop deep understanding of the interaction.
- CO – 2 : Analyze and solve problems on an executive level and demonstrating critical.
- CO – 3 : Design the general (core) management skills in the chosen area of specialization.
- CO – 4 : Design strategies to solve business problems and pursue opportunities.
- CO – 5 : Interpret a variety of ways to engage in experiential learning.