

ANDHRA UNIVERSITY**MBA****COURSE STRUCTURE****I SEMESTER**

Sl. No	Course Code	Subject	Total Marks	Mid. Sem. Exam *	Sem. End Exam	Teaching Hours / week	Credits
1	MBALM-S-101	Management Concepts and Organisational Behaviour	100	40	60	4	4
2	MBALM-S-102	Basics of Logistics and Supply Chain Management	100	40	60	4	4
3	MBALM-S-103	Managerial Economics	100	40	60	4	4
4	MBALM-S-104	Business Statistics and Data Analytics	100	40	60	4	4
5	MBALM-S-105	Quantitative Techniques for Managers	100	40	60	4	4
6	MBALM-S-106	Business Communication	100	40	60	4	4
Total			600	240	360	24	24

II SEMESTER

SL No	Course Code	Subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours / week	Credits
1	MBALM-S-201	Operations & Green Supply Chain Management	100	40	60	4	4
2	MBALM-S-202	Warehouse and Distribution Management	100	40	60	4	4
3	MBALM-S-203	Inventory Management	100	40	60	4	4
4	MBALM-S-204	Procurement, Storage & Warehouse Management	100	40	60	4	4
5	MBALM-S-205	Port and Airport Management for Logistics Management	100	40	60	4	4
6	MBALM-S-206	Strategic Management	100	40	60	4	4
Total			600	240	360	24	24

III SEMESTER

SL No	Course Code	Subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours / week	Credits
1	MBALM-S-301	Supply Chain Planning	100	40	60	4	4
2	MBALM-S-302	Maritime Logistics	100	40	60	4	4
3	MBALM-S-303	Supply Chain Analytics	100	40	60	4	4
4	MBALM-S-304	Multimodal Logistics	100	40	60	4	4
5	MBALM-S-305	Procurement & Vendor Management	100	40	60	4	4
6	MBALM-S-306	Universal Human Values and Professional Ethics	100	40	60	4	4
Total			600	240	360	24	24

IV SEMESTER

SL No	Course Code	Subject	Total Marks	Mid. Sem. Exam*	Sem. End Exam	Teaching Hours / week	Credits
1	MBALM-S-401	Emerging Technologies in Global Business Environment	100	40	60	4	4
2	MBALM-S-402	e- Business and e-Logistics	100	40	60	4	4
3	MBALM-S-403	International Logistics Management	100	40	60	4	4
4	MBALM-S-404	Risk Management in Supply Chain and Logistics	100	40	60	4	4
5	MBALM-S-405	Regulatory Compliance in Supply Chain and Logistics	100	40	60	4	4
6	PW-A87	Research Project and Dissertation	100	00	00	--	4
7	VV-A202	Comprehensive Viva voce	100	00	00	-	4
Total			700	200	300	20	28

SEMESTER-I**MANAGEMENT CONCEPTS AND ORGANISATIONAL BEHAVIOUR****Course Objectives:**

CO 1: The course aims to provide students with a foundational understanding of managing business

CO2: To understand the Fundamentals of Management and Behavioral aspects of individual and groups in an organization.

CO3: Facilitate comprehension of individual and group dynamics in the workplace, with the ultimate goal of enhancing organizational efficiency.

Learning Outcomes:

1. Comprehend the essence of management and explicate the roles and responsibilities encompassed within the functions of management.
2. Develop an understanding of different approaches to designing organizational structures.
3. Comprehend the significance of personality traits and Perception in workplace dynamics.
4. Acquire knowledge and comprehension of motivation, leadership, and conflict concepts.
5. Gain a comprehensive understanding of the fundamental principles of group behavior and the framework for organizational change and development.

Unit-I

Fundamentals of Management & Planning Management practices from past to present, Different levels of management, Managerial skills and Managerial Functions, Case Studies

Objective of planning, Planning process, Types of planning, Types of plans, Management by Objective, Decision-making- types, process & techniques, Case Studies

Unit -II

Organising & Staffing- Types of organization, Organization structure and decentralization of authority, Meaning of staffing, Recruitment, selection & placement, Training & development.

Unit-III

Directing & Controlling- Principle of directing, Essence of coordination, Different control techniques, Management by exception. Case Studies.

Unit-IV

Behavioural Studies. Fundamentals of individual behaviour, Personality, types of personality, Personal effectiveness, meaning of Attitudes, Types, Components, attitude formation and attitude change. Meaning & Type of Group Behaviour, Interpersonal skills, Transactional Analysis, Johari Window

Unit -V

Motivation Theory of Motivation: Maslow's, Herzberg's, McClelland, Contemporary theories of Motivation: Self Determination Theory, Self-Efficacy Theory, Vroom's Expectancy Theory, Equity Theory, Reinforcement Theory, Meaning of Perception, process, behavioural applications of perception. Case Studies

Unit-VI

Leadership What is leadership, types of leaders and leadership styles, traits and qualities of effective leader, trait theory, LSM – Leadership Situational Model, Team Building, Tuckman Model of Team Development.

Organizational Change Meaning of organizational change approaches to managing organizational change, creating a culture for change, implementing the change, Kurt Lewin Model of change. Case Studies

Suggested References

1. Koontz Harold & Weinrich Heinz - Essentials of management (Tata McGraw Hill, 5th Edition, 2008)
2. L. M. Prasad- Principles and Practices of Management, Sultan Chand & Sons, 7th edition, 2007.
3. Stephen P. Robbins, Organizational Behaviour, 12th Edition, Prentice Hall

4. Dr.Premvir Kapoor, Principles and Practices of Management, Khanna Publishing House, Delhi
5. Robbins & Coulter - Management (Prentice Hall of India, 9th Edition)
6. Principles of Management, George R. Terry & S.G. Franklin, AITBS, Delhi.
7. N M Khandelwal- Indian Ethos & Values for Management- Himalayan Publishing
8. Fred Luthans, "Organizational Behaviour", 12th Edition, McGraw Hill International Edition
9. Aswathappa K, "Organizational Behaviour (Text, Cases and Games)", Himalaya Publication
10. UdaiPareek, "Organizational Behaviour", Oxford University Press

BASICS OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Course Objectives:

- CO 1: The course aims to describe the increasing significance of logistics
And its impact on both costs
- CO2: To understand the strategic role of logistics management
- CO3: To study the important modes of logistics operations
- CO4: Comprehend understanding of supply chain techniques in an
International Perspective

Learning Outcomes:

1. Understand the fundamental concept of supply chain management
2. Select and apply appropriate tools and techniques to plan, control and manage the supply chain to achieve overall efficiency and effectiveness.
3. Apply basic principles of lean supply for operational excellence.
4. Comprehend cultural and technological impact on global supply chain development

Unit 1

Supply Chain Concepts: Objectives of a Supply Chain, Stages of Supply chain, Value Chain Process, Cycle view of Supply Chain Process, Key issues in SCM, logistics & SCM, Supply Chain Drivers and obstacles, Supply chain strategies, strategic fit, Best practices in SCM, Obstacles of streamlined SCM.

Unit 2

Logistics :Evolution, Objectives, Components and Functions of Logistics Management, Distribution related Issues and Challenges; Gaining competitive advantage through Logistics Management, Transportation-Functions, Costs, and Mode; Network and Decision, Containerization, Cross docking.

Unit 3

Supply Chain Performance: Bullwhip effect and reduction, Performance measurement: Dimension, Tools of performance measurement, SCOR Model. Demand chain management, Global Supply chain- Challenges in establishing Global Supply Chain, Factors that influences designing Global Supply Chain Network.

Unit 4

Warehousing: Concept and types, Warehousing strategy, Warehouse facility location & network design, Reverse logistics, Outsourcing- Nature and concept, Strategic decision to Outsourcing, Third party logistics(3PL), Fourth party logistics(4PL).

Supply Chain and CRM- Linkage, IT infrastructure used for Supply Chain and CRM, Functional components for CRM, Green supply chain management, Supply Chain sustainability.

Suggested Readings:

1. Chopra, Sunil, Meindl, Peter and Kalra, D. V.; Supply Chain Management: Strategy, Planning and Operation; Pearson Education
2. Altekar, Rahul V.; Supply Chain Management: Concepts and Cases;
3. Ballou, Ronald H.; Supply Chain Management; Pearson Education
4. Sahay, B.S.; Supply Chain Management; Macmillan
5. Ballou, R.H. Business Logistics Management. Prentice-Hall Inc.
7. Bowersox D.J. ,Closs D.J. , Logistical Management, McGraw-Hill, 1996

MANAGERIAL ECONOMICS

Course Objectives:

CO 1: The course aims to expose Students to basic micro economic Concepts

CO2: Understand how market structure influences the allocation of resources

CO3: To apply economic reasoning to problems of business.

Learning Outcomes:

Use supply and demand to explain various economic phenomena and principles.

1. Explain the economic meaning of price, elasticity, and production costs. Describe the cause and effect of changes in all of these variables.
2. Draw and analyze cost and revenue curves that maximize profit.
3. Discuss differences and critically analyze the pros and cons of different market structures, including competitive, monopolistic and oligopolistic markets.

UNIT – I

Basic Concepts and principles: Definition, Nature and Scope of Economics-Micro Economics and Macro Economics, Managerial Economics and its relevance in business decisions. Fundamental Principles of Managerial Economics - Incremental Principle, Marginal Principle, Opportunity Cost Principle, Discounting Principle, Concept of Time Perspective, Equi-Marginal Principle, Utility Analysis, Cardinal Utility and Ordinal Utility. Case Studies

UNIT –II

Demand and Supply Analysis: Theory of Demand, Types of Demand. Determinants of demand, Demand Function, Demand Schedule, Demand curve, Law of Demand, Exceptions to the law of Demand, Shifts in demand curve, Elasticity of Demand and its measurement. Price Elasticity, Income Elasticity, Arc Elasticity. Cross Elasticity and Advertising Elasticity. Uses of Elasticity of Demand for managerial decision making, Demand forecasting meaning, significance and methods.(numerical Exercises) Case Studies

Supply Analysis; Law of Supply, Supply Elasticity; Analysis and its uses for managerial decision making.

Price of a Product under demand and supply forces. Case Studies

UNIT –III

Production and cost Analysis: Production concepts & analysis; Production function, Types of production function, Laws of production: Law of diminishing returns, Law of returns to scale.

Cost concept and analysis: Cost, Types of costs, Cost output relationship in the short-run. Cost output relationship in the Long-run. Estimation of revenue. Average Revenue, Marginal Revenue. Case Studies

UNIT –IV

Market structures: Perfect and Imperfect Market Structures, Perfect Competition, features, determination of price under perfect competition. Monopoly: Feature, pricing under monopoly, Price Discrimination. Monopolistic: Features, pricing under monopolistic competition, product differentiation. Oligopoly: Features, kinked demand curve, cartels, price leadership. Case Studies

UNIT –V

National Income; Concepts and various methods of its measurement, Circular flows in 2 sector, 3 sector, 4 sector economies, Inflation, types and causes, Business Cycle & its phases.

Suggested Readings

1. Managerial Economics ,D.N.Dwivedi,Vikas Publication, 7th Ed
2. Managerial Economics, GEETIKA, McGraw-Hill Education 2nd Ed.
3. Managerial Economics: Concepts and Applications (SIE), THOMAS& MAURICE, McGraw-HillEducation, 9th Ed
4. Managerial Economics, H.L Ahuja, S.Chand, 8th Ed
5. Managerial Economics - Theory and Applications, Dr.D.M.Mithani, Himalaya Publications, 7th Ed.
6. Sociology & Economics for Engineers, Dr.Premvir Kapoor, Khanna Publishing House

BUSINESS STATISTICS AND DATA ANALYTICS

Course Objectives:

- CO1-To understand the role of statistics in scientific investigation and decision making
- CO2-To understand the nature of statistical inferences about population
- CO3-To be equipped with a variety of techniques for analyzing statistical data
- CO4-To understand the role of business analytics in real world

Learning Outcomes

- 1-Develop the ability to interpret statistical analysis tools commonly used in the workplace
- 2-Use of Excel for basic data manipulation and simple statistical and graphical analysis
- 3-Perform linear regression, multiple regression and forecasting techniques using computer software
- 4-Understand the importance of various techniques for analyzing the statistical data

Unit I : Descriptive Statistics

Meaning, Scope, types, functions and limitations of statistics, Measures of Central tendency – Mean, Median, Mode, Quartiles, Measures of Dispersion – Range, Inter quartile range, Mean deviation, Standard deviation, Variance, Coefficient of Variation, Skewness and Kurtosis.

Unit II :Time Series & Index Number

Time series analysis: Concept, Additive and Multiplicative models, Components of time series, Trend analysis: Least Square method - Linear and Non- Linear equations, Applications in business decision-making.

Index Numbers:- Meaning , Types of index numbers, uses of index numbers, Construction of Price, Quantity and Volume indices:- Fixed base and Chain base methods.

Unit III: Correlation & Regression Analysis

Correlation Analysis: Rank Method & Karl Pearson's Coefficient of Correlation and Properties of Correlation.

Regression Analysis: Fitting of a Regression Line and Interpretation of Results, Properties of Regression Coefficients and Relationship between Regression and Correlation.

Unit IV: Probability Theory & Distribution

Probability: Theory of Probability, Addition and Multiplication Law, Baye's Theorem

Probability Theoretical Distributions: Concept and application of Binomial; Poisson and Normal distributions.

Unit V : Hypothesis Testing & Business Analytics

Hypothesis Testing: Null and Alternative Hypotheses; Type I and Type II errors; Testing of Hypothesis: Large Sample Tests, Small Sample test, (t, F, Z Test and Chi Square Test)

Concept of Business Analytics- Meaning types and application of Business Analytics, Use of Spread Sheet to analyze data-Descriptive analytics and Predictive analytics.

Suggested Readings

1. G C Beri - Business Statistics, 3rd ed, TATA McGrawHill.
2. Chandrasekaran & Umamaparvathi - Statistics for Managers, 1st edition, PHI Learning
3. Davis, Pecar - Business Statistics using Excel, Oxford
4. Ken Black - Business Statistics, 5th ed., Wiley India
5. Levin and Rubin - statistics for Management, 7th ed., Pearson
6. Lind, Marchal, Wathen - Statistical techniques in business and economics, 13th ed, McGrawHill
7. Newbold, Carlson, Thorne - Statistics for Business and Economics, 6th ed., Pearson
8. S. C. Gupta - Fundamentals of Statistics, Himalaya Publishing
9. Walpole - Probability and Statistics for Scientists and Engineers, 8th ed., Pearson

QUANTITATIVE TECHNIQUES FOR MANAGERS

Course Objectives

CO1- To develop skills in formulating and structuring decision making problems as mathematical models

CO2- To expose the students to understand various skills required for decision making through scientific and systematic methods

CO3-To understand the use of software for obtaining solutions of the models formulated and interpretation of results for better decision making

LO4- To understand the role of project management in decision making process

Learning Outcomes

1- Identify and formulate operations research models that represent real world problems

2- Understand the mathematical tools that are needed to solve decision making problems

3- Use of Excel-Solver to solve the proposed models.

4-Develop reports that describes the model and the solving technique

5-Analyse the results and propose recommendations to the decision-making processes

Unit I -Operations Research &Decision Making Environments

Operations Research: - Uses, Scope and Applications of Operation Research in managerial decision-making. *Decision-making environments*:-Decision-making under certainty, uncertainty and risk situations; Decision tree approach and its applications.

Unit II -Linear Programming Problem & Transportation Problem

Linear programming: Mathematical formulations of LP Models for product-mix problems; graphical and simplex method of solving LP problems; duality.

Transportation problem: Various methods of finding Initial basic feasible solution-North West Corner Method, Least Cost Method & VAM Method and optimal solution-Stepping Stone & MODI Method, Maximization Transportation Problem

Unit III -Assignment model & Game Theory

Assignment model: Hungarian Algorithm and its applications, Maximization Assignment Problem.

Game Theory: Concept of game; Two-person zero-sum game; Pure and Mixed Strategy Games; Saddle Point; Odds Method; Dominance Method and Graphical Method for solving Mixed Strategy Game.

Unit IV -Sequencing & Queuing Theory

Sequencing Problem: Johnsons Algorithm for n Jobs and Two machines, n Jobs and Three Machines, Two jobs and m - Machines Problems.

Queuing Theory: Characteristics of M/M/I Queue model; Application of Poisson and Exponential distribution in estimating arrival rate and service rate; Applications of Queue model for better service to the customers.

Unit V -Replacement Problem & Project Management

Replacement Problem: Replacement of assets that deteriorate with time, replacement of assets which fail suddenly.

Project Management: Rules for drawing the network diagram, Applications of CPM and PERT techniques in Project planning and control; crashing of operations.

Suggested Readings

- 1.R. Panneerselvam - Operations Research (PHI, 2nd Edition)
- 2.Sharma J K - Operations Research (Pearson, 3rd Edition)
- 3.Apte-Operation Research and Quantitative Techniques (Excel Books)
- 4.S Kalawathy-Operation Research (Vikas IVth Edition)
- 5.Natarajan- Operation Research(Pearson)
- 6.Singh & Kumar–Operation Research(UDH Publisher edition 2013)

7. Taha Hamdy - Operations Research - An Introduction (Prentice-Hall, 9th edition)

8. Vohra - Quantitative Techniques in Management (Tata McGraw-Hill, 2nd)

9. Kothari - Quantitative Techniques (Vikas 1996, 3rd Edition).

BUSINESS COMMUNICATION

Course Objectives

CO1: Ability to communicate ideas assertively and confidently

CO2: Gain skills to build rapport, initiate conversations, offer feedback, respond to criticism and compliment people in a positive way

CO3: understanding of the potential of great listening, questioning and acknowledging the other at all times

Learning Outcomes

1. Apply business communication theory to solve workplace communication issues.
2. Demonstrate the communication skills required in the workplace.
3. Understand and express complex ideas in written and spoken formats.
4. Learn to write business letters and make business presentations

UNIT I :

Introduction: Role of communication - defining and classifying communication - purpose of communication - process of communication - characteristics of successful communication - importance of communication in management - communication structure in organization - communication in crisis barriers to communication. Case Studies

UNIT II:

Oral communication: What is oral Communication - principles of successful oral communication - what is conversation control - reflection and empathy: two sides of effective oral communication - effective listening - non - verbal communication. Written communication: Purpose of writing - clarity in writing - principles of effective writing - approaching the writing process systematically: The 3X3 writing process for business communication: Pre writing - Writing - Revising - Specific writing features - coherence - electronic writing process.

UNIT III:

Business letters and reports: Introduction to business letters – writing routine and persuasive letters - positive and negative messages- writing memos - what is a report purpose, kinds and objectives of report writing. Presentation skills: What is a presentation - elements of presentation - designing a presentation. Advanced visual support for business presentation types of visual aid

UNIT IV:

Employment communication: Introduction - writing CVs - Group discussions - interview skills Impact of Technological Advancement on Business Communication networks - Intranet - Internet - e mails - SMS - teleconferencing - video conferencing. Case Studies

UNIT V :

Group communication: Meetings - Planning meetings - objectives - participants - timing - venue of meetings - leading meetings. Media management - the press release press conference - media interviews Seminars - workshop - conferences.

SUGGESTED READINGS:

1. Ober Newman, Communicating in Business, Cengage Learning, 2015.
2. P. Subba Rao, B. Anita Kumar, C. Hima Bindu, Business Communication, Cengage Learning India. Pvt. Ltd. 2012.
3. Stephen Bailey, Academic Writing for International students of Business, Routledge, 2013.
4. Rajendra Pal, J S Korlahahi, Essentials of Business Communication, Sultan Chand & Sons, New Delhi, 2013.
5. Sailesh Sen Gupta, Business and Managerial Communication, PHI, 2011.

II SEMESTER**OPERATIONS & GREEN SUPPLY CHAIN MANAGEMENT****Course Objectives**

CO1: Gain a comprehensive understanding of the key components of a supply chain, including procurement, production, logistics, and distribution.

CO2: Learn about the environmental and social impacts of traditional supply chain practices and the importance of sustainability in business operations

CO3: Explore the principles and concepts of green supply chain management, such as reducing waste, minimizing carbon emissions, and promoting responsible sourcing

Learning Outcomes

1. Demonstrate a comprehensive understanding of supply chain management principles, including procurement, production, logistics, and distribution.
2. Recognize the importance of sustainability in supply chain operations and the potential environmental and social impacts of traditional practices.
3. Apply the principles of green supply chain management, including reducing waste, minimizing carbon emissions, and promoting responsible sourcing.

UNIT –I Production Concepts:

Introduction, meaning, nature and scope of production and operations management. Difference between production and operations management. Productivity, factors affecting productivity and productivity measurement. Work study– Method study and work measurement. Production Technology – Types of manufacturing processes. Plant location and types of plant layout.

UNIT –II Operations Concepts:

Services scenario in India, difference between product and service, characteristics of services, classification of services, product and service design, factors affecting service design, service designing process, service blueprinting, service capacity planning. Dimensions of quality in services, understanding service quality gap, measuring service quality using SERVQUAL model.

UNIT-III Material and Inventory Management:

Types of production planning, process of production planning and control (PPC) – routing, scheduling and loading. Master production schedule, aggregate production planning. Types of inventories, inventory control techniques- EOQ, ABC, VED, FSN, HML and SDE (Simple numerical problems on Inventory control techniques). Just-in-time (JIT) and KANBAN.

UNIT-IV Green Supply Chain Management:

Introduction - Traditional Supply Chain and Green Supply Chain - Environmental Concern and Supply Chain - Closed-loop Supply Chain - Corporate Environmental Management - Green Supply Chain (GSCM): Definition, Basic Concepts - GSCM Practices. Case Studies

UNIT-V Green Logistics

Green Logistics and Transportation - Definitions of Green Logistics - Critical drivers of Green Logistics - Green transportation and logistics practices - Environmental impacts of transportation and logistics - Closing the Loop: Reverse Logistics. Case Studies

Suggested Readings:-

1. Aswathappa, K. & Bhat, K.S.-- Production and Operations Management (Himalaya Publishing House, 2nd Edition)
2. Chase, R.B., Shankar, R. & Jacobs, F.R. -- Operations & Supply Chain Management (Tata McGraw Hill, 14th Edition)
3. Chunawalla, S.A. & Patel, D.R. – Production & Operations Management (Himalaya Publishing House, 9th Edition)
4. Chary, S.N. - Production and Operations Management (Tata McGraw Hill, 6th Edition)

5. Joseph Sarkis, Yijie Dou. Green Supply Chain Management: A Concise Introduction, Routledge, 2017.
6. Charisios Achillas, Dionysis D. Bochtis, Dimitrios Aidonis, Dimitris Folinas. Green Supply Chain Management, Routledge, 2018.
7. Charantimath, P.M. - Total Quality Management (Pearson Education, 3rd Edition)
8. Bedi, Kanishka – Production & Operations Management (Oxford University Press, 3rd Edition)
9. Adam, Everett E. & Ebert, Ronald J. – Production and Operations Management (Prentice Hall, 5th Edition)
10. Gopalakrishnan, P. & Sundaresan, M. – Materials Management (Prentice Hall of India)

WAREHOUSE AND DISTRIBUTION MANAGEMENT

Course Objectives

CO1: Gain a comprehensive understanding of the fundamentals of warehousing, including its role in the supply chain and various types of warehouses.

CO2: Learn how to design and optimize warehouse layouts for maximum efficiency, considering factors like space utilization and material flow.

CO3: Understand inventory control and management techniques, including inventory optimization, safety stock, and demand forecasting.

Learning Outcomes:

1. Demonstrate a comprehensive understanding of warehousing principles, Including the role of warehousing in the supply chain
2. Design and optimize warehouse layouts to maximize space utilization and Streamline material flow.
3. Apply inventory control and management techniques to maintain accurate stock levels and minimize carrying costs.

UNIT 1: Warehouse Management

Importance of Warehousing and Warehousing Functions, Types of Warehouses, Specialized Warehouse Services, Developing Warehouse Strategies, Establishing Warehouse Standards, Receiving and Stocking, Order Picking and Shipping. Sizing the Warehouse, Warehouse Layout, Stocking Inventory in Warehouse Locations. Warehouse Automation, Warehouse Management and Environmental Sustainability, Today's Warehouse Challenges. Case Studies and Latest Updates.

UNIT 2: Warehouse Management Process

Receiving and Put Away, Picking Strategies and Equipment, Order Pick Method, Replenishment, Stock Counting, Cycle Counting, Return processing and Dispatch, Documentations. Case Studies and Latest Updates

Unit 3: Warehouse Costs and Performance Management

Types of Costs in Warehousing, Return on Investment, Traditional vs Activity Based Costing, Logistics Charging Methods, Selecting Right Performance Measures, Traditional and New Productivity Metrics, Integrated Performance Model, Benchmarking and Balance Scorecard. Health and Safety issues in Warehousing. Case Studies and Latest Updates

Unit 4 The Distribution Management Environment

Defining the Distribution Function, Basic Supply Chain Distribution Formats, Alternative Distribution Channel Formats, Role of Distribution Channels, Service Outputs and Functions of Distribution Channels, Distribution Channel Transaction Flows, Distribution Channel Inventory Flows, Substituting Information for Inventory. Reverse Logistics, Sustainability in Distribution. Case Studies and Latest Updates

Unit 5: Various Modes of Transportation

Importance of Various Modes of Transport-Rail, Road, Water, Air, Pipeline with their Characteristics and Cost Structure, The Carrier Selection Decision, Determinants of Carrier Selection, Legal Classification of Carriers, Role of Couriers as Carriers. Transportation Costs -Fixed, Variable, Joint and Common Costs, Product Related & Market Related Factors Influencing Transport Cost. Case Studies and Latest Updates

Suggested Readings

1. Gwynne Richards, Warehouse Management: A Complete Guide to Improving Efficiency

and Minimizing Costs in the Modern Warehouse (Kogan Press)

2. David Frederick Ross, Distribution Planning and Control Managing in the Era of SupplyChain Management (Springer)

3. David J. Bloomberg, Stephen LeMay & : Logistics, Prentice-Hall of India Pvt Ltd., Joe B.Hanna New Delhi,

4. Donald J. Bowersox & David J. Closs : Logistical Management, McGraw Hill PublishingCo. Ltd, New Delhi

5. Satish C. Ailawadi & Rakesh Singh : Logistics Management, Prentice-Hall of India Pvt Ltd., New Delhi
6. Donald Waters : Logistics. Palgrave Macmillan, New York,
7. Sarika Kulkarni : Supply Chain Management, McGraw Hill Publishing Co Ltd., New Delhi

INVENTORYMANAGEMENT

Course Objectives

CO1: Introduce students to the fundamental concepts and importance of Inventory management in various industries.

CO2: Define the different types of inventory, including raw materials, work-in-progress, and finished goods, and explain their management principles.

CO3: Explore the various costs associated with inventory, including holding costs, ordering costs, and shortage costs.

Learning Outcomes:

1. Demonstrate a solid understanding of the fundamental concepts and principles of inventory management.
2. Distinguish between different types of inventory (raw materials, work-in-progress, finished goods) and apply appropriate management strategies to each.
3. Analyze and calculate the various costs associated with inventory management, such as holding costs, ordering costs, and shortage costs.

Unit 1: Frameworks for Inventory Management

The Diversity of Stock-Keeping Units, The Bounded Rationality of a Human Being, Decision Aids for Managing Diverse Individual Items, Functional Classifications of Inventories, The A-B-C Classification as a Basis for Designing Individual Item Decision Models, The Phases of a Major Study of an Inventory Management-Consideration, Analysis, Synthesis, Choosing among Alternatives, Control, Evaluation, Transient Effects, Physical Stock Counts

Unit 2: Replenishment Systems for Inventory

Order Quantities When Demand Is Approximately Level, Assumptions Leading to the Basic EOQ, Derivation of the EOQ (Numerical Illustration), Sensitivity Analysis, Quantity Discounts (Numerical Illustration). Accounting for inflation, Price Established Independent of Ordering Policy & Price Set as a Fixed Fractions on Unit Variable Cost, Limits on order sizes-Maximum Time Supply or Capacity Restriction, Minimum Order Quantity

Unit 3: Inventory Items with Time-Varying Demand

The Complexity of Time-Varying Demand, The Choice of Approaches, General Assumptions and a Numerical Example, The Wagner-Whitin Method: An “Optimal” Solution under an Additional Assumption, Heuristic Approaches for a Significantly Variable Demand Pattern, the Silver-Meal, or Least Period Cost, The EOQ Expressed as a Time Supply, Lot-for-Lot, Least Unit Cost, Part-Period Balancing, When to Use Heuristics, Sensitivity to Errors in Parameters, Reducing System Nervousness.

Unit 4: Inventory Items with Probabilistic Demand

Some Important Issues and Terminology, Different Definitions of Stock Level, Back orders versus Lost Sales, Key Issues to Be Resolved by a Control System under Probabilistic Demand, The Importance of the Item: A, B, and C Classification, Continuous versus Periodic Review, The Form of the Inventory Policy, Types of Control Systems, Order-Point, Order- Quantity (s,Q) System, Order-Point, Order-Up-to-Level (s, S) System Oder-Up-to-Level (R, S) System

Unit 5: Coordinating Inventory Management in the Supply Chain

Information Distortion in a Supply Chain, Collaboration and Information Sharing, Sales and Operations Planning, Collaborative Forecasting, Vendor-Managed Inventory, Aligning Incentives, Wholesale Price Contract, Buyback Contract, Revenue-Sharing Contract, Service-Level

Suggested Readings

1. Edward A. Silver, Alberta, Canada David F. J. Thomas Penn , Inventory and Production Management in Supply Chains (CRC Press)
2. Robert A. Davis, Demand-Driven Inventory Optimization and Replenishment (Wiley-Wiley & SAS Business Series)
3. Max Mullar, Essentials of Inventory Management (AMACOM)
4. Nicolas Vendaput, Inventory Optimisations- Models and Simulation(De Gruyter)
5. Hanqin Zhang, Houmin Yan, and S.Prakash Sethi, Inventory and Supply Chain Management with Forecast Updates (Springer)

PROCUREMENT, STORAGE & WAREHOUSE MANAGEMENT

Course Objectives:

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

Learning 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. Apply inventory control and management techniques to maintain accurate stock levels and minimize carrying costs

Unit 1: Framework of Procurement Management

Introduction to Sourcing, Sourcing v/s Procurement, purchasing: Purchasing Cycle, 8 R's of Purchasing, Role of a Purchasing Manager, Risks associated with purchasing process and its mitigation, Placing Orders, Budgets and Expense Allocation, Establishing Concept and applications of Make or Buy Decision, Types and Methods of Sourcing in Retail, Centralized vs Decentralized Approaches, Single Sourcing vs Multiple Sourcing, Day-to-Day vs Long Term Sourcing, Case Studies and Latest Updates.

Unit 2: Processes in Procurements

Market Analysis and Supplier Research, Identifying Prime Sources of Suppliers' Information, Request for Proposal, Different Methods of Buying, Fundamental Steps of the Buying Process, Terms and Condition of Purchase, Buying Documentation, Negotiation in Procurement, Use of IT in Sourcing, Global Tenders and E-Procurement, Reverse Auctions, Overview of Global Purchasing,

Unit 3: Vendor Selection in Procurement

Vendor Selection Process, Evaluation of Existing Vendors, Developing Vendor Performance Measures, New Vendor Development Process, Working with Suppliers to Manage Quality, JIT and TQM in Sourcing, Key Supplier Account Management, Vendor Relationship Development, Vendor Monitoring, Promoting SME suppliers. Case Studies and Latest Updates.

Unit 4 : Aligning Inventory Objectives with Procurement

What are the objective of purchasing management at strategic in alignment of Material Management with Supply Chain, Role of purchasing in Supporting Inventory Objectives, Hedging vs. Forward Buying, Managing Price Fluctuation and Volatility in International Finance, Payment Modes, Matching Supply with Customer Demand, Managing Inward Logistics. Case Studies and Latest Updates.

Unit 5 Global Procurement Management

Global Trade Barriers, Dealing with International Suppliers, UNO and GATT conventions, Legal, Socio-Cultural Issues in International Buying, Environmental Issues & Green Purchasing, Industry Best Practices, Measurement of Sourcing Performance, Benchmarking in Retail Purchasing. Case Studies and Latest Updates.

Suggested Readings

1. Sollish, F. and Semanch, J. Strategic Global Sourcing: Best Practices, Wiley Publications
2. Chopra and Miendl, Supply Chain Management: Strategy, planning and operation, Pearson Books
3. by Sherry R. Gordon, Supplier Evaluation and Performance Excellence: A Guide to Meaningful Metrics and Successful Results.
4. B S Sahay, Emerging Issues in Supply Chain Management (McMillan)
5. Alan Harrison, Logistics Management and Strategy (Pearson)

PORT AND AIRPORT MANAGEMENT FOR LOGISTICS MANAGEMENT

Course Objectives:

CO1: Define the significance of ports and airports in the global logistics network.

CO2: Recognize the impact of efficient port and airport operations on supply chain performance.

CO3: Study the infrastructure components of ports and airports, including terminals, equipment, and facilities.

CO4: Explore how ports and airports are integrated into the broader logistics and supply chain system.

Learning Outcomes:

1. Explain the significance of ports and airports in the logistics and supply chain industry.
2. Recognize their role as key nodes in the global transportation network.
3. Assess the infrastructure components of ports and airports, including terminals, equipment, and facilities.
4. Analyze the capacity and layout planning to optimize logistical operations.

Unit I 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 II 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 III 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 IV 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 V Air Transport: Introduction to Air Transport - Air Freight - IATA - Cargo Handling at Goods at Air Port - Information Management of Air Cargo - System and Modules - Distribution of Goods.

Suggested Readings

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

STRATEGIC MANAGEMENT

Course Objectives:

C01: To introduce the concepts of strategic management and understand its nature in competitive and institutional landscape.

CO2: To expose students to various perspectives and concepts in the field of Strategic Management.

CO3: Develop the strategic thinking and decision making abilities of students, especially in relation to understanding the employability of various strategies in different situations.

Learning outcomes:

1. Demonstrate an appreciation of areas which are fundamental to the development of successful strategy.
2. Outline and critique the major perspectives on the conduct of strategy
3. Gain understanding of Strategy Implementation and Evaluation.

UNIT 1 Introduction: meaning nature, scope, and importance of strategy; Model of strategic management, Strategic Decision-Making Process. **Corporate Governance:** Composition of the board, Role and Responsibilities of the board of directors, Trends in corporate governance, Corporate Social Responsibility.

UNIT 2 Environmental Scanning: *Understanding the Macro Environment:* PESTEL Analysis, Industrial Organization (IO) & the Structure Conduct Performance (SCP) approach, Porter's Five Forces Model, *Understanding the Micro Environment:* Resource Based View (RBV) Analysis, VRIO Framework, Using resources to gain Competitive advantage & its sustainability, Value Chain Analysis. Case Studies and Latest Updates.

UNIT 3 Strategy Formulation: Situational Analysis using SWOT approach **Business Strategies:** Competitive **Strategy:** - Cost Leadership, Differentiation & Focus, Cooperative **Strategy:** - Collusion & Strategic Alliances **Corporate Strategies:** Directional **Strategy:** Growth strategies, Stability Strategies & Retrenchment Strategies. Corporate Parenting **Functional Strategies:** Marketing, Financial, R&D, Operations, Purchasing, Logistics, HRM & IT. *The sourcing decision:* Outsourcing & off shoring Case Studies and Latest Updates.

Unit 4 Strategy Choice and Analysis: Scenario Analysis Process, Tools & Techniques of strategic Analysis: BCG Matrix, Ansoff Grid, GE Nine Cell Planning Grid, McKinsey's 7'S framework. **Case Studies and Latest Updates. Strategy implementation:** Developing Programs, Budget and Procedures, Stages of Corporate Development, Organizational Life cycle, *Organizational Structures:* Matrix, Network & Modular/Cellular; Reengineering and Strategy implementation, Leadership and corporate culture, Case Studies and Latest Updates.

Unit 5 Strategy Evaluation & Control: Evaluation & Control process, *Measuring performance:* types of controls, activity based costing, enterprise risk management, primary measures of corporate performance, balance scorecard approach to measure key Performance, responsibility centres, Benchmarking, Problems in measuring Performance & Guidelines for proper control. Strategic Audit of a Corporation. Case Studies and Latest Updates.

Suggested Readings:

1. Wheelen, L. Thomas and Hunger, David J.; Concepts in Strategic Management and Business Policy, Pearson Education,
2. Stewart Clegg, Chris Carter, Martin Kornberger & Jochen Schweitzer: Strategy - Theory and Practice 3rd Ed. (SAGE Publishing India)
3. Kazmi, Azhar; Business Policy and Strategic Management; McGraw-Hill Education.
4. David, Fred; Strategic Management: Concepts and Cases; PHI Learning.
5. Thomson, Arthur A. and Strickland, A. J.; Strategic Management: Concept and Cases; McGraw Hill Education,
6. Jauch, L.F., and Glueck, W.F.; Business Policy and Strategic Management; McGraw-Hill Education,

III SEMESTER

SUPPLY CHAIN PLANNING

Course Objectives:

CO1: Define the concept of a supply chain and its components.

CO2: Explain the significance of effective supply chain planning in modern business operations.

CO3: Analyze various supply chain strategies, including lean, agile, and hybrid approaches.

CO4: Understand the alignment of supply chain strategies with overall business objectives.

Learning Outcomes:

1. Describe the fundamental concepts and components of supply chain management.
2. Explain the significance of efficient supply chain planning and its impact on organizational performance.
3. Analyze and select appropriate supply chain strategies, such as lean, agile, and responsive supply chains.
4. Align supply chain strategies with overall business goals and market demands.

Unit 1 Fundamentals of Supply Chain Planning

Management Components of Supply Chain Planning, Evolution of Supply Chain Management and Latest Trends, Understanding Logistics and Total Cost Management, Integrated Logistics Management, Supply Chain Structures and Supply Chain Strategies. Supply Chain Operations Reference Model (SCOR), Case Studies and Latest Updates

Unit 2 : Supply Chain Strategies

Crafting the Supply Chain Strategy, Stages of Supply Chain Strategy, Supply Chain Strategy Performance Attributes, Process Drivers of Supply Chain Performance, Supply Chain Strategy Matrix, Concept of Supply Chain Strategic Fit, Supply Chain Strategy Performance Metrics, Supply Chain Strategy and Risk Management. SCRM Maturity Model, Case Studies and Latest Updates.

Unit 3: The Agility and Lean Thinking in Supply Chain

The Concept of Agility in Supply Chain. Agile Drivers and Practices in Supply Chain- Joint Decision, End Customer First, Shared Goal. Inter firm Planning and Control for Supply Chain. Application of Lean Thinking to Business Processes and Supply Chain. Case Studies and Latest Updates

Unit 4 Demand Management in SCM

Components of Demand Management, Formulating Demand Strategies, Demand Planning, Developing the Demand Forecast, Creating the Supply Plan, Balancing the Demand and Supply Plans of Production, Implementing Sales and Operations Planning (S&OP) Grid in SCM., Case Studies and Latest Updates

Unit 5 Integrating the Supply Chain

Internal Integration-Function to Function. Intercompany Integration, Electronic Integration, Efficient Customer Response (ECR) in Supply Chain. Collaborative Planning, Forecasting and Replenishment, Overview of JIT and Quick Response. Enabling Sustainability in Supply Chain Strategy Case Studies and Latest Updates.

Suggested Readings

1. David Frederick Ross, Distribution Planning and Control- Managing in the Era of SupplyChain Management (Springer)
2. Supply Chain lanning and Control Product Documentation, SAP Business By Design
3. Edward Frazelle , Supply Chain Strategy- The Logistics of Supply ChainManagement(TMh)
4. Sunil Chopra and Peter Meindle, Supply chain management (Pearson)
5. D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Designing andManaging the Supply Chain concepts, Strategies and Case studies, Tata McGraw Hill,New Delhi
6. Alan Harrison and Remko van Hoek, Logistics Management and Strategy (Pearson).

MARITIME LOGISTICS

Course Objectives:

CO1: Provide an overview of the maritime industry and its significance in global trade and logistics.

CO2: Explain the key players, stakeholders, and terminology in maritime logistics.

CO3: Study the operations and management of ports, including container handling, vessel operations, and port facilities.

CO4: Understand the principles of efficient port management and their impact on supply chain efficiency.

Learning Outcomes:

1. Describe the core concepts and components of supply chain management.
2. Explain the importance of effective supply chain planning in modern business operations.
3. Analyze and select suitable supply chain strategies, including lean, agile, and hybrid approaches.
4. Align supply chain strategies with overall business objectives and market demands.

Unit 1 Foundation concepts of Maritime Logistics

Introduction to Maritime Logistics, Maritime Transport and Logistics as a Trade Facilitator, The Practice of International Shipping, International Trade Research and Non-Tariff Barriers, Current Status of International Maritime Trade and logistics, Global Trade and the Maritime Industry. Hinterland logistics-Strategy, Management and its Impacts on Supply Chains, Strategic Significance of Maritime Logistics. Case Studies and Latest Updates

Unit 2 Port Operations Management

Port Management Services, Numbers of Ports in India, Terminal Operators, Terminal Manager, Vessels Planning, Marine Terminal Operator (MTO) Agreements, Berths, Facilities and Equipment, Shipyards, Port Agents.

Shipment Procedures, Role of Clearing and Forwarding Agent, Cargo management Containerization, Shipping Documents and Terms Used in Shipping, Quality and Pre-Shipment Inspection Case Studies and Latest Updates

Unit 3 Containerization

Introduction to Containerization and Intermodal Transport, Development of Intermodal Transport, Developing Liner Service Networks in Container Shipping, Shipping Routes, Network Patterns and Port Centrality. Strategy in Container Shipping, Container Line Logistics Activities. Tanker Shipping Logistics, Contractual Relationships & Cargo Transfer Procedures. Case Studies and Latest Updates

Unit 4 Port-Related Claims and Legal Liabilities

Port Agency Selection and Responsibility, Conflict Resolution, Arbitration versus Court of Law, Safe Port, Stevedore Damage and Bills of Lading Stipulations. Port Capacity Utilization, Capacity Management and Capacity Planning on Port. Meaning and Importance of Letter of Credit, Incentives, Risk and Insurance, Benefits of Exports, Excise clearance Benefit Rebate, Income Tax Benefit. Case Studies and Latest Updates

Unit 5 Operations and Voyage Estimation

Structure of Ship Owning and its Management, Voyage Planning - Hires and Freight, Commissions, Commercial Operations. Voyage Estimation: Length of the Voyage, Commencing the Voyage Estimates, Tankers, Time Charter, Practical calculations. Case Studies and Latest Updates

Suggested Readings

1. Prabhakaran Paleri, Marine Environment: Management and People's Participation. KWPublishers Pvt. Ltd., and National Maritime Foundation: New Delhi.
2. Maria G. Burns, Port Management and Operations. CRS Press, U.K.
3. Alan E. Branch, Elements of Shipping. Chapman and Hall, Fairplay Publications, U.K.
4. Shankar, U. Environmental Economics. Oxford University Press: New Delhi.

5. Anthony W. Gallagher, Maritime Environmental Management: Principles and Practice. Routledge: London.
6. Hanley, Nick, J. F. Shogren & Ben White, Introduction to Environmental Economics. Second Edition, Oxford University Press: London.
7. Karpagam M, Environmental Economics. Sterling Publishers: New Delhi

SUPPLY CHAIN ANALYTICS

Course Objectives:

CO1: Gain a solid understanding of the key concepts and principles of supply chain management, including procurement, logistics, inventory management, and demand forecasting.

CO2: Learn how to collect and analyze data relevant to the supply chain, including data on inventory levels, transportation costs, and customer demand.

CO3: Familiarize yourself with the various tools and technologies used in supply chain analytics, such as data analytics software, optimization software, and supply chain management systems.

Learning Outcomes:

1. Students should be able to explain the key concepts and components of supply chain management, including procurement, production, distribution, and logistics.
2. Students should be able to identify relevant data sources, collect data, clean and preprocess data, and manage databases to support supply chain analytics.
3. Students should be able to use descriptive analytics techniques to summarize historical supply chain data and generate meaningful reports and visualizations.

Unit 1: Importance of Analytics in SCM

Context of today's Supply Chains (SC) analytics, Understanding the Supply Chain Analytics(SCA), Revisions of Basic of Supply Chain Management, Important of Analytics in Supply Chain, Relating operations Management with Supply Chain Concepts with SC Analytics, The Importance of Supply Chain Analytics in the Flows Involving Material, Money, Information and Ownership. **Case Studies and Latest Updates**

Unit 2: Framework of Supply Chain Analytics

Supply Chain Analytics Tools, Key Issues in Supply Chain Analytics, What Involves in Supply Chain Analytics, Concept of Descriptive Analytics in a Supply Chain, Bullwhip Effect in SCM, Decision Domains in Supply Chain Analytics, Overview of SAP Supply Chain Analytics modules and its Functionalities. Uses of Spreadsheet / Tableau in Supply chain Analytics

Unit 3: Modelling and Simulations for Supply Chain Analytics

Introduction to Modelling, Approaches for Optimization and Simulation, Modelling Software, Supply Chain Decisions that Requires Mathematical or Interpretative Modelling. Understanding of Data and its Role in Analytics of a Transportation Problem in a Supply Chain. Managerial Implications of the Results of Analytics. **Spreadsheet Modelling for Supply Chain**

UNIT 4: Predictive Modelling in Supply Chain

Forecasting for Supply Chain Planning and Management, Review of Multiple Regression and Stepwise Selection of Predictive Variables, Identification of Variables in a Forecasting Model, Exponential Smoothing Forecasting Models, Introduction to ARIMA Modelling, Data Driven Inventory Optimization. **Uses of Spreadsheet for Statistical Analysis (Lab Work)**

Unit 5: Foundation of Prescriptive Analytics in SCM

Network Planning in a Supply Chain, Importance of Network Planning, Design of Logistics Network using Heuristics/optimization, Concept of 3PL/4PL in a Supply Chain. Performance Optimisation in SCM, Information Technology in SCM. **Case Study with Latest Updates**

Suggested Readings

1. Sunil Chopra and Peter Meindl, Supply Chain Management (Pearson)
2. Jeremy F. Shapiro. Modeling the Supply Chain. Duxbury Thomson Learning
3. D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Designing and Managing the Supply Chain concepts, Strategies and Case studies, Third Edition, TataMcGraw Hill, New Delhi,
4. Rahul Saxena & Anand Srinivasan, Business Analytics
5. Lora M. Cecere, Supply Chain Metrics that Matter(Wiley)

MULTIMODAL LOGISTICS

Course Objectives:

CO1: Provide an overview of different transportation modes, including road, rail, air, sea, and pipelines, highlighting their strengths, weaknesses, and suitability for various types of cargo.

CO2: Explain the concept of multimodal transportation and the advantages of combining different modes to optimize the movement of goods.

CO3: Differentiate between intermodal and multimodal transportation, understanding when each approach is most appropriate.

Course Learning Outcomes:

1. Students should be able to describe the key characteristics, advantages, and limitations of different transportation modes, including road, rail, air, sea, and pipelines.
2. Students should be able to differentiate between intermodal and multimodal transportation and understand when and how to apply each approach.
3. Students should be able to analyze and design transportation solutions that integrate multiple modes efficiently and cost-effectively.

Unit 1 : Fundamentals of Rail, Road and Cargo Logistics

Modes of Transportations. Importance of Road and Rail Logistics, Characteristics of Different Modes of Logistics, Airline Marketing and Customer Service Standardization in Logistics, Air Freight for Exports and Imports. E-Way Bills. Economic Impacts of Rail and Road Networks. **Case Studies with Latest Updates.**

Unit 2 : Introduction to Air Cargo

Air Transport System and its Functions, Airside, Terminal Area, Landside Operations, Civil Aviation Structure, Safety and Security, Security v/s Facilitation, ICAO security manual, Training and Awareness, Rescue and Firefighting, Issues, Challenges and Future of the Air Cargo Industry. **Case Studies with Latest Updates.**

Unit 3 : Air Cargo Management System

Introduction to Air Cargo: Aviation and airline terminology, IATA, Aircraft layout, Different Types of Aircraft, Aircraft Manufacturers, International Air Routes, National and International Airports, Various Codes at Airports & Consortium, Process Flow in Air Cargo. **Latest Updates**

Unit 4 : Shipment Planning in Air Cargo

Strategies and Planning, Audits, Segmentation, SWOT, Management Control, Consignee Controlled Cargo, Sales leads, Routing Instructions, Customer service, Future trends, Advices, Booking, SLI, Labeling , Volume/Weight Ratio , Shipment Planning , TACT , Air Cargo Rates and Charges, Cargo operations, Customs clearance. **Latest Updates.**

Unit 5 Air Freight and Shipment Handling

Air Freight Forwarding: Air freight Exports and Imports, Special Cargoes, Consolidation, Documentation, Air Way Bill (AWB), Communication in Air Cargo, Handling COD shipments, POD, Conditions of contract, Provisions for Dangerous or Hazardous Goods. **Latest Updates**

Suggested Readings

1. John J Liu, Supply Chain Management and Transport Logistics (Routledge)
2. John Walter wood , Airports; some elements of designs and future development
3. Simon Taylor, Air transport logistics (Hampton)
4. Paul Jackson and William Brackenridge, Air cargo distributions: a management analysis of its economic and marketing benefits (Gower Press)
5. Peter S. Smith , Air freight: operations, marketing and economics (Faber)
6. Sung Chi-Chu , 4th Party Cyber Logistics for Air Cargo by (Kluwer)
7. Mark Wang , Accelerated Logistics (Santa Monica CA)

PROCUREMENT AND VENDORS MANAGEMENT

Course Objectives:

CO1: Develop a foundational understanding of procurement principles, concepts, and best practices.

CO2: Learn how to develop a strategic sourcing plan that aligns with organizational goals and objectives.

CO3: Gain the ability to identify, evaluate, and select suppliers based on criteria such as quality, cost, reliability, and ethical considerations.

Learning Outcomes:

1. Students will be able to demonstrate a comprehensive understanding of the core concepts, principles, and processes of procurement and vendor management.
2. Students will have the ability to develop and implement a strategic sourcing plan aligned with organizational goals and objectives.
3. Students will be capable of identifying, evaluating, and selecting suppliers based on criteria such as quality, cost, reliability, and ethical considerations.

Unit 1: Framework of Procurement Management

Introduction to Sourcing, Sourcing v/s Procurement, Purchasing: Purchasing Cycle, 8 R's of Purchasing, Role of a Purchasing Manager, Risks associated with purchasing process and its mitigation, Placing Orders, Budgets and Expense Allocation, Establishing Concept and applications of Make or Buy Decision, Types and Methods of Sourcing in Retail, Centralized vs Decentralized Approaches, Single Sourcing vs Multiple Sourcing, Day-to-Day vs Long Term Sourcing, **Case Studies and Latest Updates.**

Unit 2: Processes in Procurements

Market Analysis and Supplier Research, Identifying Prime Sources of Suppliers' Information, Request for Proposal, Different Methods of Buying, Fundamental Steps of the Buying Process, Terms and Condition of Purchase, Buying Documentation, Negotiation in Procurement, Use of IT in Sourcing, Global Tenders and E-Procurement, Reverse Auctions, Overview of Global Purchasing, **Case Studies and Latest Updates.**

Unit 3 Vendor Selection in Procurement

Vendor Selection Process, Evaluation of Existing Vendors, Developing Vendor Performance Measures, New Vendor Development Process, Working with Suppliers to Manage Quality, JIT and TQM in Sourcing, Key Supplier Account Management, Vendor Relationship Development, Vendor Monitoring, Promoting SME suppliers. **Case Studies and Latest Updates.**

Unit 4 : Aligning Inventory Objectives with Procurement

What are the objective of purchasing management at strategic in alignment of Material Management with Supply Chain , Role of purchasing in Supporting Inventory Objectives, Hedging vs. Forward Buying, Managing Price Fluctuation and Volatility in International Finance, Payment Modes, Matching Supply with Customer Demand, Managing Inward Logistics. **Case Studies and Latest Updates.**

Unit 5 Global Procurement Management

Global Trade Barriers, Dealing with International Suppliers, UNO and GATT conventions, Legal, Socio-Cultural Issues in International Buying, Environmental Issues & Green Purchasing, Industry Best Practices, Measurement of Sourcing Performance, Benchmarking in Retail Purchasing. **Case Studies and Latest Updates.**

Suggested Readings

1. Sollish, F. and Semanch, J. Strategic Global Sourcing: Best Practices, Wiley Publications
2. Chopra and Miendl, Supply Chain Management: Strategy, planning and operation,
Pearson Books
3. by Sherry R. Gordon, Supplier Evaluation and Performance Excellence: A Guide to Meaningful Metrics and Successful Results.
4. B S Sahay, Emerging Issues in Supply Chain Management (McMillan)
5. Alan Harrison, Logistics Management and Strategy (Pearson)

UNIVERSAL HUMAN VALUES AND PROFESSIONAL ETHICS

Course Objectives:

CO1: To understand the meaning, purpose, and relevance of universal Human values

CO2: To inculcate and practice human values consciously to be a good human being and realize one's potentials.

Learning outcomes :

1. Know about universal human values and understand the importance of values in individual, social circles, career path, and national life.
2. Learn from case studies of lives of great and successful people who followed and practiced human values and achieved self-actualization.
3. Become conscious practitioners of human values.
4. Realize their potential as human beings and conduct themselves properly in the ways of the world.

UNIT-1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

Understanding the need, basic guidelines, content and process for Value Education, Self-Exploration-what is it? - its content and process; 'Natural Acceptance' and Experiential Validation- as the mechanism for self-exploration, Continuous Happiness and Prosperity- A look at basic Human Aspirations, Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority, Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario, Method to fulfill the above human aspirations: understanding and living in harmony at various levels.

UNIT-2: Understanding Harmony in the Human Being - Harmony in Myself (8 Hours)

Understanding human being as a co-existence of the sentient 'I' and the material 'Body', Understanding the needs of Self ('I') and 'Body' - Sukh and Suvridha, Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer), Understanding the characteristics and activities of 'I' and harmony in 'I', Understanding the harmony of I with the Body: Sanyam and Swasthya; correct appraisal of Physical needs, meaning of Prosperity in detail, Programs to ensure Sanyam and Swasthya.

UNIT-3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

Understanding harmony in the Family- the basic unit of human interaction, Understanding values in human-human relationship; meaning of Nyaya and program for its fulfillment to ensure Ubhay-tripti; Trust (Vishwas) and Respect (Samman) as the foundational values of relationship, Understanding the meaning of Vishwas; Difference between intention and competence, Understanding the meaning of Samman, Difference between respect and differentiation; the other salient values in relationship, Understanding the harmony in the society (society being an extension of family): Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals, Visualizing a universal harmonious order in society- Undivided Society (AkhandSamaj), Universal Order (SarvabhaumVyawastha)- from family to world family!.

UNIT-4: Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

Understanding the harmony in the Nature, Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature, Understanding Existence as Coexistence (Sah-astitva) of mutually interacting units in all-pervasive space, Holistic perception of harmony at all levels of existence.

UNIT-5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

Natural acceptance of human values, Definitiveness of Ethical Human Conduct, Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order, Competence in Professional Ethics: a) Ability to utilize the professional competence for augmenting universal human order, b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems, technologies and management models, Case studies of typical holistic technologies, management models and production systems, Strategy for transition from the present state to Universal Human Order: a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers, b) At the level of society: as mutually enriching institutions and organizations

Suggested Readings

1. R R Gaur, R Sangal, G P Bagaria, 2009, A Foundation Course in Human Values and Professional Ethics.
2. Ivan Illich, 1974, Energy & Equity, The Trinity Press, Worcester, and Harper Collins, USA
3. E.F. Schumacher, 1973, Small is Beautiful: a study of economics as if people mattered, Blond & Briggs, Britain.
4. Susan George, 1976, How the Other Half Dies, Penguin Press. Reprinted 1986, 1991
5. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, Limits to Growth - Club of Rome's report, Universe Books.
6. A Nagraj, 1998, Jeevan Vidya Ek Parichay, Divya Path Sansthan, Amarkantak.
7. P L Dhar, RR Gaur, 1990, Science and Humanism, Commonwealth Publishers.

8. A N Tripathy, 2003, Human Values, New Age International Publishers.
9. Subhas Palekar, 2000, How to practice Natural Farming, Pracheen (Vaidik)KrishiTantraShodh, Amravati.
10. E G Seebauer& Robert L. Berry, 2000, Fundamentals of Ethics for Scientists &Engineers, Oxford University Press
11. M Govindrajan, S Natrajan& V.S. Senthil Kumar, Engineering Ethics (includingHuman Values), Eastern Economy Edition, Prentice Hall of India Ltd.
12. B P Banerjee, 2005, Foundations of Ethics and Management, Excel Books
13. B L Bajpai, 2004, Indian Ethos and Modern Management, New Royal Book Co.,Lucknow. Reprinted 2008

IV SEMESTER

Emerging Technologies in Global Business Environment

Course Objectives:

CO1: To familiarize students with the latest technological advancements and innovations, such as artificial intelligence, block chain, Internet of Things (IoT), 5G, and virtual/augmented reality, among others.

CO2: To help students analyze and interpret how emerging technologies are driving global business trends, such as digital transformation, industry 4.0, and the shift to e-commerce.

CO3: To enable students to adapt to and embrace technological change by providing insights into how businesses can leverage emerging technologies for growth and competitiveness.

Learning Outcomes:

1. Students should be able to demonstrate a deep understanding of various emerging technologies, including their principles, applications, and potential impact on global business.
2. Students should be able to analyze and interpret global business trends influenced by emerging technologies and identify the key drivers of change in different industries and regions.
3. Students should be able to develop strategies for integrating emerging technologies into business operations, marketing, and overall organizational planning.

Unit 1 Industry 4.0 and Digital Transformation

Meaning and Nature of Industry 4.0 and Latest Trends. Realignment in Political, Economic, Socio-Cultural, Technological Factors that are driving change in International Business Management, the changing nature of Globalization, The changing nature of regulatory environment, natural environment, new age ethics. Overview of Digital Transformation.

Unit 2: Emerging Technologies as Drivers of Global Business

Artificial Intelligence- Machine Learning, Deep Learning Singularity - Time Lines and Implication. **Augmented Reality**, Virtual Reality and Mixed Reality and Applications. **Blockchain** - Concepts and Industrial Applications, Challenges in adopting Block chain. **Additive Manufacturing:** Advantages and Disadvantages, new applications of additive manufacturing, impact of additive manufacturing on supply chain management, mass customization and the customer experience. Introduction of **Neuroscience in Business**. **Internet of Things (IoT)**.

Unit 3: New Age Economies

Circular Economy- Concept of Circular Economy, difference between Linear and Circular Economy, Role of Circular Economy in Sustainable Business and Innovation. **Behavioural Economics-** Core Concepts of Behavioural Economics, Nudging and Choice Architecture, Ethical Concerns of Behavioural Economics. **Economic Nationalism** - Nature of Economic Nationalism, Contemporary Cases in Economic Nationalism, Future of Economic Integration.

Sharing Economy - New Business Models, Characteristics, Difference Between Platforms and Traditional Business Models, Different Types of Platforms, implications on future of work.

Unit 4: Changing Natures of Global Politics

Identity Politics – Issues & Challenges, The Rise of Authoritarianism and what that means for politics, Reviving Democratic Ideals, The Rise of China and its impact on global trade.

Unit 5: Social, Cultural and Global Challenges

Diversity of different generations in the workplace, issue of inter-generational equity. **Migration** - Political, Economic and Human Rights Perspective, the Migrant Crisis in the EU. **Climate Change** – Political Dimensions of Climate Change, Plight and Issue of Climate Refugees, Sustainable Development Goals.

Rising Inequality: Historical Context of Inequality and Social Unrest, Global Inequality, Social and Economic Reforms. **Privacy in the Digital World** – Complexity of Privacy Issues, Basics of GDPR (General Data Protection Regulation), Importance of Personal Data,

Existential Threats – Five Types of Risks associated with AI, Need for New Age Ethics.

Suggested Readings

1. Kapoor, Mansi - Global Business Environment: Shifting Paradigms in the Fourth Industrial Revolution, SAGE Publishing India
2. Narendra Jadhav, New Age technology and Industrial Revolution 4.0 (Konark Publisher)
3. Pranjal Sharma, India Automated (McMillan)
4. Kapoor, M - Global Business Environment: Shifting Paradigms in the Fourth Industrial Revolution, SAGE India
5. Arun Sundararajan, The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism (MIT Press)
6. Mark Van Rijmenam, The Organisation of Tomorrow: How AI, blockchain and analytics turn your business into a data organisation (Routledge)
7. Nitin Seth, Winning in Digital Age (Penguin)
8. Hu, Ming, Sharing Economy (Springer)
9. Hill, International Business, McGraw-Hill
10. Cherunilam, F - International Trade and Export Management, Himalaya
11. Daniels - International Business (Pearson)

e- Business and e- Logistics

Course Objectives:

CO1: To provide students with an overview of the concepts and principles of e-business and e-logistics.

CO2: To explore the various models and technologies used in e-commerce and online retail including online marketplaces, payment gateways, and the integration of digital platforms.

CO3: To understand how e-logistics technologies optimize supply chain operations, from sourcing and procurement to distribution and delivery.

Learning Outcomes:

1. Students should be able to demonstrate a clear understanding of the core concepts and principles of e-business and e-logistics, including their definitions, scope, and significance.
2. Students should be able to describe and evaluate various e-commerce models (B2B, B2C, C2C) and the technologies that support online transactions, such as payment gateways and online marketplaces.
3. Students should be able to analyze how e-logistics technologies, including inventory management systems and transportation optimization tools, are used to streamline supply chain operations and improve efficiency.

Unit 1 Drivers of Digital Business and Industry 4.0

Introduction to digital business and e-commerce, Marketplace analysis for e-commerce, Managing Digital Business Infrastructure, E-environment and Factors Driving E-Business. Different Models of E-Business. Industry 4.0 and Emerging Trends

Unit 2: Managing Digital Business Infrastructure

Technology and digital business infrastructure components, Focus on Web services, SaaS, cloud computing and service-oriented architecture (SOA), Benefits of web services or SaaS, Application programming interfaces (APIs), Challenges of deploying SaaS, Virtualisation, Service-oriented architecture (SOA), Selecting hosting providers, managing service quality when selecting Internet service and cloud hosting providers, Introduction to EDI.

Unit 3 E Business Environment

Social and legal factors for e-commerce service adoption, Understanding users' access requirements and consumers influence from online channels, Contemporary business demand for digital business services. B2B , B2C, C2C and B2G Models. Privacy and trust in e-commerce, National and International regulations on privacy and electronic communications, Marketing of e-commerce business, Forming an electronic contract (contract law and distance-selling law). Accepting payment. Protecting Intellectual Property (IP).

Unit 4 Digital Business Strategy

The imperative for digital business strategy, Digital channel strategies, Strategy process models for digital business, Selection of digital business strategy, Competitive environment analysis, Assessing competitive threats, Sell-side and Buy-side threats, Co-opetition, Competitor analysis, Resource-advantage mapping, Digital business channel priorities and its diversification, Business, service and revenue models, Marketplace restructuring, Supply chain management capabilities.

Unit 5 E Procurement and E Logistics

Understanding the Procurement process, Participants in different types of e-procurement, Drivers of e-procurement, Benefits of e-procurement, Estimating e-procurement costs, Barriers and risks of e-procurement adoption. Push and Pull Supply Chain, E- Logistics Technologies- Advance Ship Notice (ASN), Tracking systems, Satellite global positioning systems (GPS) and geographic information systems (GIS), Bar-coding and scanning, Digital Signature Technology, Wireless Technology – Radio Frequency Identification and Detection (RFID).

Suggested Readings

1. Dave Chaffy, Digital Business and E commerce Management – Strategy, Implementation and Practices (Pearson)
2. Gerhard Oswald & Michael Kleinemeier, Shaping the Digital Enterprise: Trends and UseCases in Digital Innovation and Transformation (Springer)
3. Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
4. RaviKalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley.
5. Efraim Turban, Jae Lee, David King, H.Michael Chung, "Electronic Commerce-A Managerial Perspective", Addison-Wesley

INTERNATIONAL LOGISTICS MANAGEMENT

Course Objectives:

CO1: Gain a comprehensive understanding of the global supply chain, including its components, functions, and how it operates across international borders.

CO2: Familiarize yourself with international trade regulations, customs procedures, import and export documentation, and compliance with international trade laws.

CO3: Learn about various transportation modes used in international logistics, including ocean freight, airfreight, rail, and road transportation, and understand their advantages and disadvantages.

Learning Outcomes:

1. Students should be able to demonstrate a deep understanding of how international supply chains function, including the various components and their interrelationships.
2. Learners should be able to explain and apply international trade regulations and customs procedures, including import/export documentation and compliance with relevant laws.
3. Students should be capable of selecting appropriate transportation modes for different international logistics scenarios, considering factors like cost, time, and type of goods.

Unit 1 : Foundation Concepts in International Logistics

Managing the Supply Pipeline for Global Trade Flows, The Global Logistics Operators, Comparison between National (Domestic) and International Logistics, International Transport, Globalisation and International Trade Environment. Factors Driving Global Supply Chain Management, Customs and Global Supply Chain Management.

Case Studies and Latest Updates

Unit 2 Export Sales Contract in International Logistics

Constituents of the Export Sales Contract, Contract of Affreightment: Terms of Delivery & Incoterms standards. International Purchasing Systems, Constituents/Strategy and its Interface with the Management of the Global Supply Chain, Negotiating the Contract, Selecting the International Logistics Operator, Criteria of Selecting the Third-Party Logistics Operator, Contract Logistics. **Case Studies and Latest Updates**

Unit 3 Integrating International Logistics with Supply Chain

Trade-Offs in International Logistics, Multi-Modalism, Key Factors in a Transport Mode(s) & Trade-Off. Considerations of Speed, Frequency, Packing and Insurance in International Transportation. Warehousing & Benchmarking in Global Supply Chain Management, Supply Chain Cycle Time Reduction, Demand-Driven Supply Network in International Logistics. **Case Studies and Latest Updates**

Unit 4: International Transport Systems

Introduction to International Transport System- Basic Terms, Characteristics and Relations, Significance of Transportation Services, Characteristics of Modes of Transports -Road Transportation, Rail Transportation, Maritime Transport, Air Transport. Intermodal Transportation, Technical performance & Transport Economic Indicators, Maritime Routing Patterns, The Containerization of Commodities, Transcontinental Bridges. **Case Studies and Latest Updates**

Unit 5: Cost and Economy of International Logistics

International Transport and Economic Development, Transportation and Commercial Geography International Transport Costs, International Transport Supply and Demand, Location Analysis, Market Area Analysis, The Nature of International Transport Policy, International Transport Planning, International Transport Safety and Security, Traffic Counts and Traffic Surveys, Cost /Benefit Analysis. **Case Studies and Latest Updates**

Suggested Readings

1. Alan E. Branch, Global Supply Chain Management and International Logistics (Routledge)
2. Jean-Paul Rodrigue, Claude Comtois and Brian Slack, "THE GEOGRAPHY OF TRANSPORT SYSTEMS" (2009), New York: Routledge.
3. Douglas Long: International Logistics Global Supply chain management, Kluwer academic publishers
4. Asopa, V.N: Shipping Management: Cases and Concepts, Macmillan, New Delhi.

5. Lambert, D et al: Strategic Logistic Management, McGraw Hill, New Delhi.
6. Morlok, Edward K. "The Freight Transportation System," Excerpted from CRCEngineering Hand Book.
7. LaLonde, Bernard J. "Intermodal Freight Requirements," TR News 192,10.DeGarmo, E. Paul, et.al. Engineering Economy, 8th Edition, Macmillan.

Risk Management in Supply Chain and Logistics

Course Objectives:

CO1: Develop a comprehensive understanding of the various risks that can impact supply chain and logistics operations, including financial, operational, geopolitical, and environmental risks.

CO2: Learn to identify and categorize potential risks within the supply chain, including risks associated with suppliers, transportation, inventory management, and demand variability.

CO3: Acquire the skills to assess and analyze the impact and likelihood of different risks, and prioritize them based on their potential consequences.

Learning Outcomes:

1. Students should demonstrate a deep understanding of the various risks that can impact supply chain and logistics operations
2. Graduates should be able to identify and categorize potential risks within the supply chain, including risks associated with suppliers, transportation, inventory, and demand variability.
3. Learners should be capable of assessing and analyzing the potential impact and likelihood of different risks

Unit 1 : Introduction of Risks Management

Risk Management: Concept and Process, An Action-Based Framework for Supply Chain Risk, Identification of Operational Hazards, Risk Assessment and Valuation, Tactical Risk Decisions and Crisis Management, Strategic Risk Mitigation, Four Operational Hedging Strategies. Effect of disruptive Supply Chain on Corporate Performance

Unit 2 Operational Strategy for Managing Supply Chain Risks

Introduction, Stockpile Inventory, Diversify Supply, Backup Supply, Manage Demand, Ambiguity in Risks. Decentralised Risks Management Strategy. Shared risks; Achieving an integrated approach; Identifying risks , Analysing and responding to risks ; Problems with integrating SCRM ; Levels of SCRM integration ; In summary

Unit 3 Managing Supply Chain Disruption

Economic Risks to Supply Chain-Demand Shock, Currency Fluctuation, Supply Shock, Industrial Unrest, Impacts of Natural Disasters, pandemics and Climate Change, Societal Risks to Supply chain, Risks and Security in Air Cargo Supply chain, Time-Based Risk Management-Response Time and Impacts, Risk and Reward Considerations.

Unit 4; Approaches to Risk Management

Identifying Risks and its Types, Tools for Analysing Past Events, Tools to Collect Opinions, Tools to Analyse Operations, Problems with Risks Identification, Conceptual Explanations with Examples, Development of Risk Management Techniques, Supply Chain Risk Management (SCRM) and aims of SCRM. Steps in Risk Management, Principles of SCRM. Supply Chain Management in Disaster Response.

Unit 5 : Creating Resilient Supply Chains

Concept of Resilient Supply Chain, Principles of Designing a Resilient Supply Chain, Physical Features of a Resilient Supply Chain, relationships within a Resilient Supply Chain, Risk Compensation and Business Continuity. Latest updates in Resilient Supply Chain.

Suggested Readings

1. Donald Water, Supply Chain Risks Management, (Kogan Pages)
2. Omra Khan & George Zsidisn , Handbook for Supply Chain and Risks Management (Meri Pustak)
3. Yacob Khojasteh, Supply Chain Risk Management: Advanced Tools, Models, and Developments (Springer)
4. Bret Wagner, Sime Curkovic, and Thomas Scannell, Managing Supply Chain Risk: Integrating with Risk Management
5. Lingxiu Dong, Onur Boyabatli, and Panos Kouvelis, Handbook of Integrated Risk Management in Global Supply Chains (Weily)

REGULATORY COMPLIANCE IN SUPPLY CHAIN AND LOGISTICS

Course Objectives:

CO1: Develop a comprehensive understanding of the regulatory frameworks that impact supply chain and logistics, including local, national, and international regulations.

CO2: Learn to identify and categorize the specific laws, regulations, and standards that apply to different aspects of supply chain and logistics

CO3: Acquire the skills to assess the compliance of supply chain and logistics operations with relevant laws and regulations, and identify areas of non-compliance.

Learning Outcomes:

1. Students should demonstrate a deep understanding of the regulatory frameworks that impact supply chain and logistics
2. Graduates should be able to identify and categorize the specific laws, regulations, and standards that apply to various aspects of supply chain
3. Learners should be capable of assessing the compliance of supply chain and logistics operations with relevant laws and regulations

Unit 1: Introduction of Contracts and its Importance in Supply Chain

Essentials of a Contract, Void Agreements and Contingent Agreements, Performance and Discharge, Remedies for Breach and Quasi Contracts, Consideration and Legality of Object, Bailment and Pledge, Carriage of Goods, Indemnity and Guarantee. Overview of Contracts in Supply chain. **Latest Updates and Case Studies**

Unit 2: Preliminaries for Exports and Imports

Classifications and Types of Export and Import, Export Licensing, Selection of Export Product, Methods of Exporting, Pricing Quotations, Payment Terms, Letter of Credit., Liberalization of Imports, Negative List for Imports, Categories of Importers. **Latest updates and Case Studies.**

Unit 3: Documents for Shipping Logistics

Commercial Invoice, Shipping Bill, Certificate of Origin, Consular Invoice, Bill of Lading, GRForm, ISO 9000, Procedure for obtaining ISO 9000, BIS 14000 Certification, Types of Marine Insurance Policies., Import Documents, Transport Documents, Bill to Entry, Certificate of Inspection, Certificate of Measurements, Freight Declaration. **Latest updates and Case Studies**

Unit 4: Procedure and Regulatory Compliances in Export-Import

Steps in Export Procedure, Export Contract, Forward Cover, Excise Clearance, Pre-shipment Inspection, Methods of Pre-shipment Inspection, Marine Insurance, Role of Clearing and Forwarding Agents, Shipping and Customs Formalities, Customs EDI System, Realization of Exports Proceeds. Pre-Import Procedure, Steps in Import Procedure, Legal Dimensions of Import Procedure, Customs Formalities for Imports Exchange Control Provisions for Imports.

Latest Updates and Case Studies

Unit 5: International Trade Policy and GST

Latest Foreign Trade Policy, Anti-dumping & Countervailing Laws, Trade Secrets and Intellectual property Rights. Provisions for Air Cargo Supply Chain and Contract of the Carriage. Various Provisions of Goods and Service Acts (GST) with reference to Logistics. **Latest Updates and Case Studies**

Suggested Readings:

1. Ruwantissa Abeyratne, Law and Regulation of Air Cargo (Springer)
2. Handbook of Import-Export Procedures – Ministry of Commerce, Government of India, New Delhi
3. Ram Singh, Export and Import Management (Sage)
4. Thomas E. Johnson, Export Import Documentation and procedure (AMCOM)
5. Nabhi's Board of Editors, How to EXPORT (Nabhi Publications)

6. S. D.Majumdar , GST: Explained for Common Man (Niyogi Book)
7. M. I. Mahajan, Import - Do it Yourself, Snow White Publications, New Delhi
8. D C Kapoor, Export Management (Vikas Publishing House)
9. S.S. Gulshan, Mercantile Law (Excel Books)
10. Chawla, Garg & Sarin, Mercantile Law, (Kalyani Publishers)