

FUNDAMENTALS OF LOGISTICS

Semester I	Course Type Domain	Code LD2301	Hours 45	Credits 3	Version 2023-24
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COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become logistics professionals
- To orient students in the field of Logistics
- To help Students to understand Fundamentals of Logistics

LEARNING OUTCOMES:

- Students will be able to apply the Basic knowledge of Logistics in the real-life situation
- This subject will enable them to enhance their ability and professional skills in Logistics

Unit	Topics
I	Introduction to Logistics: History of Logistics Need for logistics- Cost and Productivity, cost saving & Productivity improvement. Logistics Cost, reduction in logistics cost, benefits of efficient Logistics, Principles of Logistics, Technology & Logistics -Informatics, Logistics optimization. Listing of Sub-sectors of Logistics
II	Logistics and Customer Service - Definition of Customer Service Elements of Customer Service-Phases in Customer Service-Customer Retention - Procurement and Outsourcing - Definition of Procurement/Outsourcing - Benefits of Logistics Outsourcing - Critical Issues in Logistics Outsourcing
III	Global Logistics - Global Supply Chain - Organizing for Global Logistics-Strategic Issues in Global Logistics - Forces driving Globalization - Modes of Transportation in Global Logistics Barriers to Global Logistics - Markets and Competition - Financial Issues in Logistics Performance - Integrated Logistics - Need for Integration - Activity Centres in Integrated Logistics. Role of 3PL&4PL.
IV	a) Warehouse: Warehouse-Meaning, Types of Warehouses Benefits of Warehousing. b) Transportation- Meaning; Types of Transportations, efficient transportation system and Benefits of efficient transportation systems. c) Courier/Express - Courier/Express-Meaning, Categorization of Shipments, Courier Guidelines, Pricing in Courier - Express Sector for international and domestic shipping. d) E-Commerce - Meaning, Brief on Fulfillment Centers, Reverse logistics in e-commerce sector, Marketing in e-commerce and future trends in e-commerce.
V	a) EXIM: Brief on EXIM/FF & CC, Multi-modal transportation, brief on customs clearance, bulk load handling and brief on trans-shipment. b) Supply chain. c) Cold chain. d) Liquid Logistics. e) Rail Logistics.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Fundamentals of Logistics Management (The Irwin/Mcgraw-Hill Series in Marketing), Douglas Lambert, James R Stock, Lisa M. Ellram, McGraw-hill/Irwin, First Edition, 1998.
3. Vinod V. Sople (2009) Logistic Management (2nd Edn.) Pearson Limited.
4. Logistics Management for International Business: Text and Cases, Sudalaimuthu & Anthony Raj, PHI Learning, First Edition, 2009.
5. Fundamentals of Logistics Management, David Grant, Douglas M. Lambert, James R. Stock, Lisa M. Ellram, McGraw Hill Higher Education, 1997.
6. Logistics Management, Ismail Reji, Excel Book, First Edition, 2008.

MATERIALS MANAGEMENT

Semester I	Course Type Domain	Code LD2302	Hours 60	Credits 4	Version 2023-24
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COURSE OBJECTIVES:

- To help Students to understand basic Principles and concept of material Management
- To orient students on contemporary development in the field of material management
- To develop competencies and knowledge of students to become effective professionals

LEARNING OUTCOMES:

- To apply the knowledge about material management in the real-life business situation
- Understand the contemporary practices followed in the field of Materials Management
- To enhance their managerial ability and professional skills

Unit	Topics
I	Introduction: Materials Management - Evolution, Importance, Scope and Objectives- Interface with other functions. -Supply Chain Management -Objectives- Components, Trade off Customer Service & Cost. Supply Chain Analytics.
II	Purchasing: purchasing and procurement activities under Materials management- Purchasing Methods- Purchasing and quality Assurance- Purchase Cycle – governmental purchasing practices and procedures - Negotiation & Bargaining – Vendor relations
III	Inventory - Need of Inventory -Types of Inventory - Basic EOQ Model - EOQ with discounts – Different types of Analysis. Forecasting –methods of forecasting-Material Requirement Planning (MRP) -Input and output of MRP system -BOM Explosion -MRP II.
IV	Quality control of material: Incoming material quality control- statistical quality control(Various control charts)- Inventory control & Cost Reduction techniques. Value Analysis & Value Engineering. Standardization – need and importance. Codification - concept, benefits.
V	Stores - Functions- Stores layout -documentation- Materials handling and storage systems, - Principles of Materials Handling system – Safety issues

Text & Reference Books:

1. Course Material Prepared by LSC
2. Materials management: procedures, text and cases - A.K. Datta
3. Materials management: An integrated approach - P. Gopalakrishnan
4. Introduction to Materials management - J.R. Tony Arnold & Stephen N. Chapman
5. Purchasing and Materials Management - K S Menon
6. Handbook of Materials Management – Gopalakrishnan

WAREHOUSING & DISTRIBUTION CENTRE OPERATIONSemester
ICourse Type
DomainCode
LD2303Hours
45Credits
3Version
2023-24**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Warehouse professionals
- To help Students to understand Warehousing and distribution centre operations
- To orient students about contemporary practices followed in Warehousing & Logistics

LEARNING OUTCOMES:

- To apply the Basic knowledge of Warehousing and distribution centre operations in the real-life situation
- To enhance their ability and professional skills
- To Understand the contemporary Practices in the Industry

Unit	Topics
I	Introduction to Warehouse (Storage and Packaging) Background - Types of Warehouses - Broad functions in a warehouse - warehouse layouts and layout related to functions. Equipment requirement in warehouse -Strategic Aspects of Warehouse.
II	Receiving of Goods- Advanced shipment notice (ASN)-Goods Receipt note-(GRN)-Stages involved receipt of goods- Visual inspection of goods unloaded- Formats for recording of goods unloaded from carriers- Procedure for Arranging of goods on dock -Put away of Goods- its activity -Put away list and its need-Put away of goods into storage locations - storage location codes and its application
III	Procedure to prepare warehouse dispatches-Preparing Packaging List/Dispatch Note-Packaging-its importance of packing-Packaging Materials-reading Labels-quality parameters in packing significance-Cross Docking Method-and its application- Automation: Pick / Put to Light - A Frame - Automated Order Selection – Pick-N- Go - Outbound Sorters - Automatic Truck Loading.
IV	Distribution – Definition – Need for physical distribution –concept–system perspective - functions of distribution –marketing forces affecting distribution. Channels of distribution: role of marketing channels – channel functions – channel structure –designing distribution channel – choice of distribution channels
V	Warehouse Safety Rules and Procedures: Hazardous cargo – Procedure for Identification of Hazardous Cargo - safety data sheet- Familiarization with the industry. Health, Safety & Environment - 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

Text & Reference Books:

1. Course Material Prepared by LSC
2. Definitive Guide to Warehousing, The: Managing the Storage and Handling of Materials and Products in the Supply Chain (Council of Supply Chain Management Professionals) 1st Edition
3. Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse- III Edition-Gwynne Richards