	L21C07	Warehousing and Distribution Centre Operations	L	T	P	J	S	C	
			3					3	
	Course owner	Dept. of Operations	Syllabus version				1.0		
	Course Pre-requisite(s)	NIL	Contact hours				30		
	Course Co-requisite(s)	NIL	Date Approved						
	Alternate Exposure								

The course deals with various approaches, and techniques used in the design and operation of warehouse and distribution process of global supply chains. The material is taught from a managerial perspective, with an emphasis on where and how specific tools can be used to improve the overall performance of logistics system. We place a strong emphasis on the development and use of basic and analytical knowledge to illustrate the underlying concepts involved in both intra- and inter-company logistics operations.

Course Objectives

1. To develop competencies and knowledge of students to become warehouse professional
2. To orient students in the field of logistics
3. To help Students to understand warehousing and distribution centre operations
4. To apply the basic knowledge of warehousing and distribution centre operations in the real-life situation
5. To incorporate and manage uncertainty and risk associated with warehouse and distribution operations

UNIT - I Introduction to Warehouse

No of Hours: 6

Introduction to Warehouse (Storage and Packaging) Background – Need for Warehouse– Importance of warehouse–Types of Warehouses–Broad functions in a warehouse–warehouse layouts and layout related to functions. Associate warehouse–Its functions–equipment available in associate warehouse–Video on warehouse–Visits to warehouses–Warehouse Organization Structure–Benefits of Warehousing.

Learning Outcomes:

After completion of this unit, the student will be able to

- Explain the need and importance of warehouses in an organization L2
- Classify the different types of warehouses L2
- Describe the broad functions of warehouses L2
- Analyze the warehouse layouts and layout related to functions L4
- Explain the benefits of warehousing L2

Pedagogy tools: Blended learning, case study, video lectures, self-reading

UNIT - II Receiving and Dispatch of Goods in warehouse


No of Hours: 6

Receiving and Dispatch of Goods in warehouse Various stages involved in receiving goods–Stages involved receipt of goods–Advanced shipment notice (ASN) or invoice items list–Procedure for Arranging of goods on dock for counting and Visual inspection of goods unloaded–Formats for recording of goods unloaded from carriers–Generation of goods receipt note using computer–Put away of Goods–Put away list and its need–Put away of goods into storage locations–storage location codes and its application–Process of put away activity–Procedure to Prepare Warehouse dispatches

Learning Outcomes:

After completion of this unit, the student will be able to

- Explain various stages involved in receiving goods. L2
- Explain advanced shipment notice (ASN) or invoice items list L2
- Illustrate the procedure for arranging of goods on dock for counting and visual inspection L2

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	Course Co-requisite(s)	NIL	Date Approved						
	Alternate Exposure								

- Describe the process of put away activity L2
- Explain the procedure to prepare warehouse dispatches L2

Pedagogy tools: Blended learning, case study, video lectures, self-reading

UNIT - III Warehouse Activities

No of Hours: 6

Warehouse Activities Explain receiving, sorting, loading, unloading, Picking Packing and dispatch, activities and their importance in a warehouse-quality parameters-Quality check-need for quality check-importance of quality check. Procedure to develop Packing list / Dispatch note-Cross docking method- Situations suited for application of cross docking-Information required for coordinating cross docking-Importance of proper packing-Packing materials-Packing machines-Reading labels

Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the basic warehouse activities and their importance L2
- Analyse the parameters for quality checking L4
- Understand the procedure to develop packing list or dispatch note L2
- Apply cross docking method L3
- Explain the importance of proper packing L2

Pedagogy tools: Blended learning, case study, video lectures, self-reading

UNIT - IV Warehouse Management

No of Hours: 6


Warehouse Management: Warehouse Utilization Management - Study on emerging trends in warehousing sector-DG handling-use of Material Handling Equipment's in a warehouse-Inventory Management of a warehouse-Inbound & Outbound operations of a warehouse and handling of Inbound & Outbound operations. Distribution-Definition-Need for physical distribution- functions of distribution-marketing forces affecting distribution. The distribution concept-system perspective. Channels of distribution: role of marketing channels-channel functions-channel structure-designing distribution channel-choice of distribution channels

Learning Outcomes:

After completion of this unit, the student will be able to

- Explain the use of materials handling equipment in a warehouse L2
- Apply inventory management in a warehouse L3
- Differentiate inbound and outbound operations of a warehouse L4
- Explain the need for physical distribution L2
- Evaluate the choice of distribution channels L5

Pedagogy tools: Blended learning, case study, video lectures, self-reading

	L21C07	Warehousing and Distribution Centre Operations	L	T	P	J	S	C	
			3					3	
	Course owner	Dept. of Operations	Syllabus version				1.0		
	Course Pre-requisite(s)	NIL	Contact hours				30		
	Course Co-requisite(s)	NIL	Date Approved						
Alternate Exposure									

UNIT - V Warehouse Safety Rules and Procedures

No of Hours: 6

Warehouse Safety Rules and Procedures: The safety rules and Procedures to be observed in a Warehouse-Hazardous cargo– Procedure for Identification of Hazardous Cargo-safety data sheet-Instructions to handle hazardous cargo-Familiarization with the industry. Health, Safety & Environment-safety Equipments and their uses- 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

Learning Outcomes:

After completion of this unit, the student will be able to

- Apply the safety rules and procedures to be followed in a warehouse L3
- Analyze safe handling of the hazardous cargo in a warehouse L4
- Explain the safety equipment and their uses L2
- Apply 5S Concept on shop floor L3
- Understand the personal protective equipment and their uses L2

Pedagogy tools: Blended learning, case study, video lectures, self-reading

Textbook(s):

1. Course Material Prepared by LSC
2. JP Saxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd, First Edition, 2003.

Additional Reading

Reference Book(s):

1. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems [WithCDROM], Michael Ten Hompel, Thorsten Schmidt, Springer-verlag, First Edition, 2006.
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India

Journal(s):

1. Journal of Purchasing and Materials Management
2. Journal of Operations Management
3. International Journal of Production and Operations Management
4. International Journal of Production Economics
5. International Journal of Production Research

	Programme Objectives (POs)												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	3	1	3	2	1	2										
CO2	3	2	3	0	2	3										
CO3	2	3	3	0	0	0										
CO4	2	1	3	2	0	2										
CO5	3	2	3	0	0	0										

1-Low, 2- Medium and 3- High Correlation