

COURSE NAME:	Warehouse Management
TOTAL DURATION:	45 Hrs
MODE OF DELIVERY	PHYSICAL CLASSROOM TRAINING AT RESPECTIVE COLLEGES
TRAINER TO STUDENT RATIO:	1:50
TOTAL MARKS:	75

Table 1

OVERALL COURSE OBJECTIVE:	<ol style="list-style-type: none"> 1. Analyze the principles of warehouse management and justify their role in optimizing supply chain operations. 2. Evaluate inventory management techniques and tools, recommending solutions to enhance stock accuracy and operational efficiency. 3. Develop workflows for warehouse operations, including inbound, storage, and outbound processes, to minimize bottlenecks and improve productivity. 4. Construct risk management frameworks and compliance protocols to ensure safety and regulatory adherence in warehouse environments. 5. Design future-ready warehouses by integrating emerging technologies like AI, IoT, and robotics, focusing on sustainability and performance optimization.
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LEARNING OUTCOME:	<ol style="list-style-type: none"> 1. Critique warehouse management principles. 2. Evaluate inventory management techniques. 3. Develop efficient workflows for warehouse operations. 4. Construct risk management frameworks. 5. Design sustainable and technology-driven warehouse models.
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TABLE 2: MODULE WISE COURSE CONTENT AND OUTCOME

SL.NO	MODULE NAME	MODULE CONTENT	MODULE LEARNING OUTCOME	DURATION (HRS)
1	Introduction to Warehouse Management	<ul style="list-style-type: none">- Definition and role of warehousing- Types of warehouses- Principles of layout design and space optimization	Critique the principles of warehouse management and their importance in supply chain operations.	9
2	Inventory Management and Control	<ul style="list-style-type: none">- Inventory types- ABC analysis, EOQ, and JIT- RFID and barcoding systems for tracking	Evaluate inventory management techniques to improve accuracy and operational efficiency.	9
3	Warehouse Operations and Workflows	<ul style="list-style-type: none">- Inbound, storage, and outbound processes- FIFO, LIFO, cross-docking- Material handling systems	Develop workflows for efficient warehouse operations, reducing bottlenecks and increasing throughput.	9
4	Safety, Compliance, and Risk Management	<ul style="list-style-type: none">- Safety protocols and hazard identification- Legal and environmental regulations- Contingency planning	Construct risk management frameworks and ensure compliance with safety standards and legal requirements.	6
5	Performance Optimization	<ul style="list-style-type: none">- AI, IoT, and robotics in	Design future-ready	9

	and Technology	warehousing - Green warehousing practices - Blockchain and predictive analytics	warehouses by integrating advanced technologies and focusing on sustainability.	
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TABLE 3: OVERALL COURSE LEARNING OUTCOME ASSESSMENT CRITERIA AND USE CASES

LEARNING OUTCOME	ASSESSMENT CRITERIA	Performance Criteria	USE CASES
Critique warehouse management principles.	Judge the importance of warehousing in supply chain efficiency.	Demonstrates an understanding of key warehousing concepts and their application in real-world scenarios.	Use Case 1: Optimize an e-commerce warehouse to reduce order processing times and stockouts.
Evaluate inventory management techniques.	Recommend strategies like ABC analysis, EOQ, and RFID-based tracking to improve inventory accuracy.	Provides a detailed evaluation of inventory control methods and their impact on stock management.	Use Case 2: Implement JIT strategies for a manufacturing company to minimize waste and improve stock accuracy.
Develop efficient workflows for warehouse operations.	Create workflows for inbound, storage, and outbound logistics to streamline processes.	Designs workflows that reduce bottlenecks, improve material handling, and enhance operational productivity.	Use Case 3: Redesign the process flow for receiving, storing, and dispatching goods in a retail warehouse.
Construct risk management frameworks.	Propose safety measures and compliance strategies to mitigate	Demonstrates the ability to create risk mitigation plans that align with legal and regulatory	Use Case 4: Develop a risk management plan for a warehouse handling

	operational risks.	standards.	hazardous materials.
Design sustainable and technology-driven warehouse models.	Integrate IoT, AI, and robotics for enhanced efficiency and propose renewable energy solutions for sustainability.	Creates innovative warehouse designs that leverage emerging technologies and prioritize sustainability practices.	Use Case 5: Propose a smart warehouse solution for a logistics firm integrating robotics and predictive analytics.

TABLE 4: LIST OF FINAL PROJECTS (PROJECTS THAT COMPREHENSIVELY COVER ALL THE LEARNING OUTCOME)

SL.NO	FINAL PROJECT
1	Goods Receipt Note Confirm and document the receipt of goods into the warehouse, ensuring inventory records are updated accurately.
2	Delivery Receipt Document and track the delivery of goods from the warehouse, detailing conditions and quantities delivered.
3	Stock Transfer Note Record and monitor inventory movements between warehouses or locations to maintain accountability and accuracy.
4	Purchase Order Management Create and manage purchase orders to align with operational needs and inventory requirements.
5	Warehouse Performance Report Generate reports on warehouse efficiency using metrics like order accuracy, lead times, and space utilization.

TABLE 5: COURSE ASSESSMENT RUBRICS (TOTAL MARKS: 75)

ASSESSM	Learnin	Fair (1–5)	Good (6–	Excellent	TOT
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ENT CRITERIA	g Outcome		10)	(11–15)	AL MARKS
Understanding Warehouse Management	Critique warehouse management principles.	Basic understanding of warehousing concepts with limited applications.	Adequate understanding with moderate real-world applications.	Demonstrates comprehensive knowledge and provides actionable recommendations for operational improvements.	15
Inventory Management and Control	Evaluate inventory management techniques.	Limited ability to apply inventory methods; lacks accuracy in recommendations.	Applies inventory methods effectively with minor errors in recommendations.	Demonstrates mastery in inventory management techniques, offering precise and impactful recommendations.	15
Workflow Development	Develop efficient workflows for warehouse operations.	Creates basic workflows with minimal improvement in process efficiency.	Designs functional workflows that moderately streamline operations.	Produces advanced workflows that significantly reduce bottlenecks and improve productivity.	15
Safety and Risk Management	Construct risk management frameworks.	Basic safety and risk management plans with limited depth.	Develops moderately comprehensive risk mitigation plans with	Designs robust frameworks that align with legal standards	15

			functional safety measures.	and effectively mitigate operational risks.	
Technology and Sustainability Integration	Design sustainable and technology-driven warehouse models.	Basic understanding of emerging technologies with limited implementation of sustainable practices.	Integrates technology and sustainability practices moderately well in warehouse designs.	Creates innovative designs that fully leverage technology and emphasize sustainability.	15