

MET-2070: INTRODUCTION TO INDUSTRIAL WAREHOUSING

Cuyahoga Community College

Viewing: MET-2070 : Introduction to Industrial Warehousing

Board of Trustees:

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Academic Term:

Fall 2023

Subject Code

MET - Mech Eng/Manuf Ind Eng Tech

Course Number:

2070

Title:

Introduction to Industrial Warehousing

Catalog Description:

A continuation of industrial supply logistics and go into further detail of warehouse management and operations. Fundamentals of receiving product, storage of production output, processing orders, packaging and shipping, inventory control, handling of hazardous materials, transportation modal evaluation, customs, and dispatch and tracking operations. Designed to prepare students to take the MSSC CLT examination.

Credit Hour(s):

2

Lecture Hour(s):

1

Lab Hour(s):

2

Requisites

Prerequisite and Corequisite

MET-1631 Industrial Supply Logistics, and MET-1100 Technology Orientation.

Outcomes

Course Outcome(s):

Identify and discuss the process of product receiving and storage.

Objective(s):

- a. Describe product receiving operations and the types of typical supporting documents.
- b. Apply different product storage techniques in a typical warehouse setting.

Course Outcome(s):

Describe inventory control, types of packaging, and the process of shipping products.

Objective(s):

- a. Identify appropriate packaging for products to be shipped.
 - b. Apply order processing techniques when preparing simulation documentation.
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Course Outcome(s):

Practice safety principles in handling of hazardous materials.

Objective(s):

Practice safety principles in handling hazardous materials and describe appropriate techniques.

Course Outcome(s):

Describe how to evaluate transportation modes, dispatch products, and track products.

Objective(s):

- a. Evaluate different types of transportation modes for different simulated examples with regard to land, air, rail, and water transportation modes.
- b. Use tracking and dispatching software to demonstrate product tracking and dispatch.

Methods of Evaluation:

- a. Course Project
- b. Midterm Exam and Final Exam
- c. Laboratory Assignments/Reports
- d. Quizzes and Homework Assignments

Course Content Outline:

1. Product Receiving
 - a. The receiving process
 - b. Inbound Trucks handling/managing
 - c. Standard documentation
2. Product Storage
 - a. Methods of determining destination and direction of unloaded materials
 - b. Key issues affecting how materials are stored
 - c. Forms of how materials are stored
 - d. Storage options and automated processes
3. Order Processing
 - a. Describe best practices in order cycle and procurement processes
 - b. Pick tick inspection
 - c. Processes for accurately pulling products from storage
 - d. How audits function
 - e. Staging of pulled products and steps involved in developing a packing manifest
4. Packaging and Shipment
 - a. Process for selecting appropriate packaging materials
 - b. Describe selection tools
 - c. Typical steps to protect products from weather
 - d. Processes to ensure that outbound product counts are accurate
 - e. Importance of product labels and order forms
5. Inventory Control
 - a. Fundamentals of inventory control
 - b. Common inventory control systems
 - c. Inventory county and capturing logistics information
 - d. Describe reverse logistics
6. Safe handling of Hazardous Materials
 - a. List government regulations related to hazmat handling
 - b. Identify safe work practices for unloading and loading HAZMATS

- c. List safe work practices and how HAZMATS are identified in shipping materials
- 7. Evaluation of Transportation Modes (Truck, Air, Rail, Water)
 - a. Describe and list each mode of transportation and their advantages & disadvantages
 - b. Give examples of transportation documentation
- 8. Dispatch and Tracking Operations
 - a. Explain shipping documentation
 - b. List ways to track cargo
 - c. Basic customs terminology and documentation
- 9. Measurement and Conversion
 - a. Calculate basic weight and volume
 - b. Convert units between US and metric

Resources

Martin, Christopher. *Logistics & Supply Chain Management*. 5th ed. United Kingdom: Pearson Education Limited, 2016.

Hugus, Michael H. *Essentials of Supply Chain management*. 3rd ed. NJ: John Wiley & Sons, Inc., 2018.

Ready, Leo and Rebekah Hutton. *Supply Chain Logistics: Mid-level Technical Knowledge*. 3rd ed. Alexandria, VA: MSSC, 2013.

Richards, G. *Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse*. 3rd ed. New York, NY: Kogan Page, 2018.

Bowersox, Donald. *Supply Chain Logistics Management*. 5th. 2019.

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