

# **Appendix U**

## **TRANSPORTATION, DISTRIBUTION AND LOGISTICS YOUTH APPRENTICESHIP**

### **LOGISTICS/SUPPLY CHAIN MANAGEMENT (SCM) PATHWAY INVENTORY MANAGEMENT & PRODUCTION (UNIT 13)**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 1. Respond to customer inquiries

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Collect information from records or customer
- Respond to customer comments and questions
- Update information accurately as applicable
- Process physical documents of service
- Solicit supervisor or co-worker support and advice when necessary to meet customer needs
- Follow up to ensure customer's needs were met
- Handle complaints tactfully without insult or conflict

Learning Objectives

- List the variety and range of services that your facility offers
- Identify the internal and external customers in your facility
- Compare needs of internal and external customers
- Define customer service
- Describe how customer service affects a company's "bottom line"
- List strategies for maximizing customer satisfaction
- Describe the functions of other departments or units to serve the customer
- Describe facility issues that may impact customer needs being met
- Describe how plans are made to improve organizational performance including customer satisfaction and service/operations performance

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 2. Collect and maintain data & files

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Select appropriate forms/records
- Code documents as required
- File forms/records in appropriate location
- Retrieve and replace files in correct position
- Add, Edit, Verify and Query data in electronic files if applicable
- Use appropriate computer codes, formatting, macros, charts, spreadsheets, etc.
- Verify data prior to entry/storage
- Maintain files

Learning Objectives

- Demonstrate how electronic data is manipulated such as in a spreadsheet system
- Explain how data & files are backed up
- Identify and explain the role and function of software management systems
- Explain how planning software and systems (ERP, MRP, DRP, WMS) are utilized to manage logistics planning

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 3. Process documentation & prepare reports

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Determine required data and documentation needed
- Use the correct format to generate accurate reports
- Prepare reports as required
- Produce reports in a timely fashion
- Maintain record log
- Maintain electronic filing system
- Maintain security and confidentiality

Learning Objectives

- Describe the function of specific documents and forms in your company
- List typical documentation files necessary in inventory management & production
- Discuss the need importance of security & confidentiality of records

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **4. Gather qualified supplier information for materials to be ordered**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Locate suppliers using sources such as catalogs and the internet
- Gather supplier information about materials to be ordered

Learning Objectives

- Classify vendors by type
- Describe the function of the supplier qualification process
- Describe factors to consider when evaluating suppliers
- Explain the importance of assessing a vendor's financial status to the ability to supply
- Discuss the contract and negotiation process for supplier bids

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **5. Assist to determine prices, specifications, and delivery dates from potential suppliers**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Obtain supplier information/bids in order to make purchase decision
- Compare prices, specifications, and delivery dates from potential suppliers.
- Communicate to internal/external customers on supplier information and performance
- Maintain supplier contact
- Assist to inform suppliers of winning bid

Learning Objectives

- Compare quality and pricing structures for vendors offering the same type of service or product
- Discuss factors considered when ordering from one supplier versus another
- Describe how production schedules and customer order priorities influence choice of supplier

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **6. Gather and organize data for demand forecasting**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Research to determine viability of ventures for sources of materials and services
- Evaluate internal/external, local/global environments for threats or opportunities (economic, geography, history, political, competition, regulatory, cultural, technological)
- Compare costs/benefits of utilizing local, national and/or international markets

Learning Objectives

- Identify major local, national and international trade regions
- Define terms associated with trade regions
- Construct an import flowchart
- Construct an export flowchart
- Determine ports of entry/export for a selected product
- Describe types of payment methods used in international transactions

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 7. Assist to develop forecasts

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Gather and organize data for demand forecasting
- Develop forecasts
- Set lot sizes, inventory levels and order lead-time
- Document forecasts using graphs and charts in written reports or master file for ordering levels

Learning Objectives

- Explain the purpose and function of an inventory forecast
- List the types of data needed for inventory forecasting
- Define lot size, inventory level, re-order point and lead-time
- Explain the importance of the maintaining inventory levels to minimize inventory value
- Identify factors/variables for what, when and how much to order
- Describe the costs involved for excess inventory, back orders, etc.
- Discuss factors used to determine order lead-time
- Determine most appropriate demand forecasting method

**Comments:**



## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 8. Assist to develop production & inventory solutions based on production and logistics plan

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Determine selection criteria for warehousing services (e.g., loading, storing, consolidating) based on production and logistics plan
- Identify possible warehousing providers
- Assist to evaluate bids and select provider(s)
- Document (e.g., report, memo, tables) warehousing solution

Learning Objectives

- Identify the elements of a supply chain
- Define methods of inventory management
- Explain the purpose of an inventory plan
- Define the functions that inventories perform
- Identify costs relevant to inventory decisions
- Calculate the costs of ordering and carrying inventory
- Discuss the contract and negotiation process for warehousing/storage bids
- Compare and contrast the different types of inventory designs based on flow of materials
- Describe facility design issues and their impact on inventory & production planning
- Describe the steps in forecasting, planning, scheduling and inventory control that are used to ensure optimum use of capacity and resources
- Research and identify areas of waste
- Compare and contrast advantages and disadvantage of owning and operating facilities versus out-sourcing
- Name four major components of logistics
- Explain supply chain management
- Summarize differences between logistics and supply chain management
- Define basic logistics terminology
- Discuss/evaluate logistics industry trends
- Explain the functions of each department or unit within the larger organization
- Describe the role of sales and marketing operations in your facility

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 9. Assist to develop packaging and material handling requirements based on production and logistics plan

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Determine packaging, storage, and handling requirements based on production and logistics plan
- Identify alternative solutions
- Assist to evaluate alternative solutions
- Assist to select most cost-effective solution
- Document (e.g., report, memo, tables) evaluation process and selection decision

Learning Objectives

- Define the functions of packaging
- Describe packing material
- Explain how customer shipping instructions determine packing requirements
- Identify costs relevant to packaging decisions
- Compare different types of packaging solutions
- Compare packing materials to determine the safest and most cost-effective method of shipping

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **10. Verify receipt of goods/services**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Review procedures for materials movement between storage, customer and production
- Receive goods/services
- Ensure receipt matches original order for good/services
- Reconcile any discrepancies with worksite professional and supplier or department
- Communicate in a timely and accurate manner to the correct parties

Learning Objectives

- Discuss the reason for the distribution network of the inventory plan
- Describe different inventory systems

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 11. Complete inventory transfer forms for bookkeeping purposes

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Complete required forms/computer entry for inventory movement
- Review accuracy of forms/computer entry
- Forward forms to necessary departments or personnel

Learning Objectives

- Discuss the use of records and documentation to track inventory movement
- Describe the importance of tracking inventory movement
- Explain the process of inventory movements from raw materials receipt to production to shipping of final product

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **12. Assist to coordinate schedules for materials/product/services movement**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Ensure movement of materials/product/services, & equipment meet established deadlines
- Track, and report back product, production, material and/or delivery issues to original communicator
- Communicate in a timely and accurate manner to the correct parties

Learning Objectives

- Explain how to read a production schedule and manufacturing work order
- List methods of productivity measurement and just-in-time inventory control
- Describe how priority planning and capacity planning are linked
- Define the purpose of production activity control and inventory management in a made to order vs. made to stock facility
- Evaluate movement of goods to maximize value and minimize costs

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **13. Assist to perform physical inventory**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Carry out inventory activities safely
- Do physical count for each item
- Use correct unit of measure to record inventory results
- Keep inventory movement to a minimum

Learning Objectives

- Explain the purpose of a physical inventory
- Explain methods and reasons for monitoring inventory accuracy
- Discuss the timing of inventory audits to production requirements
- Describe your facility's policy in the event of inventory shortage

**Comments:**

## Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production

Competency

### 14. Report inventory shortage

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite

Performance Standard Criteria

**Performance will be successful when learners:**

- Compare physical count to perceived count
- Adjust and update inventory count
- Follow company policy in the event of inventory shortage.
- Make sure that inventory corrections are accurate
- Report inaccuracies to the proper parties

Learning Objectives

- Explain the costs of inventory shortages
- Describe common reasons for inventory shortages or overages
- Describe methods that are used to minimize inventory movement errors

**Comments:**

## **Unit 13: Logistics/Supply Chain Management (SCM) Pathway Inventory Management & Production**

Competency

### **15. Assist with inventory inaccuracies investigations**

Performance Standard Condition

**Competence will be demonstrated**

- at the worksite
- while assisting a worksite professional

Performance Standard Criteria

**Performance will be successful when learners:**

- Evaluate the amount and type of inaccuracy to be investigated
- List internal and external factors that could have contributed to the type of inaccuracy noted
- Compile necessary company documents to evaluate factors identified
- Audit processes and staff to evaluate potential losses
- Create solutions based on audit results
- Monitor implementation of solutions for effectiveness

Learning Objectives

- Discuss how inventory shortages are investigated
- List common reasons for inventory loss
- Identify factors that affect the costs of replenishing inventory
- Describe factors that affect the costs of shortages
- Define and explain the major measures used by a logistics organization to manage and improve performance

**Comments:**