**CERTIFIED LOGISTICS TECHNICIAN (CLT) CERTIFICATE**

Instructional Hours (70 )

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| **Course Description**  (CLA Level) This portion of the course is designed to provide students with the foundational-level knowledge of the world of supply chain logistics. Modern competitive workers are those who can keep pace with rapid changes in technology and processes, are easily trainable and can work in a global environment. These workers must also be competent in the critical work activities common across all facilities within the supply chain: safety; quality control, communications, teamwork, good workplace conduct and familiarity with key computer systems and equipment that underpin supply chain operations.  This course covers the material handling aspects of the global supply chain and describes the foundational knowledge that front-line material handling workers should master to perform well. It is designed to give students a broad overview of the industry and how the front-line worker fits into that environment.  The Key concepts are:  Global Supply Chain Logistics Overview The Logistics Environment Material Handling Equipment Safety Principles Safe Use of Material Handling Equipment Quality Control Teamwork and Workplace Conduct Work Communication Using Computers Common Logistics Terminology  (CLT Level) This portion of the course is designed to provide students with mid-level technical knowledge of the world of supply chain logistics. The required competency of mid-level technical workers up to first line supervision includes: product receiving and storage, order processing, packaging and shipping, inventory control, hazmat handling, transportation evaluation, dispatch and order tracking. This portion of the course covers the material handling aspect of the global supply chain and describes the mid-level technical knowledge that front-line material handling workers should master to perform well. It is designed to give students more practical insight into the industry and how the fron-line worker fits into that environment.  The key concepts are:  Product Receiving Product Storage Order Processing Packaging and Shipping Logistics Documentation Inventory Control Safe Handling, Storage and Transport of Hazmats Evaluation of Transportation Modes Dispatch and Tracking Operations Metric Conversions  **Learning Objectives**  **CLA Level**  **Chapter 1: Global Supply Chain Logistics (4 hrs)**  **Lesson Description**  This chapter provides students with an overall view of the world of Global Supply Chain Logistics. It covers the product life cycle through the supply chain and outlines the roles of various links in the supply chain. This chapter also briefly addresses the productivity measures and cost elements of the supply chain.  **Learning Objectives**   * Demonstrate a clear understanding of how the product life cycle affects the company’s viability and profitability * Exhibits a clear understanding of how one’s role affects other parts of the product life cycle * Indicates an understanding of various transportation options * Applies a clear understanding of the basic principles of cost effectiveness and productivity enhancements   **Chapter 2: The Logistics Environment (4 hrs)**  **Lesson Description**  This chapter introduces the student to the logistics environment including the terms and jargon of the industry and the basic physical, informational and security aspects of the supply chain. It also provides a brief overview of government regulations that affect logistics workers.  **Learning Objectives**   * Exhibits a clear understanding of security requirements applicable to the logistics environment * Applies a clear understanding of the environmental impact of logistics activities * Demonstrates a clear understanding of the physical layout of the logistics environment |

**Chapter 3: The Material Handling Equipment (4 hrs)**

**Lesson Description**

This chapter introduces the student to the types of equipment used in logistics facilities. Students will learn about various types of fork-trucks, conveyors, packaging equipment, etc. They will also learn about the basic concepts of preventive and corrective maintenance for material handling equipment.

**Learning Objectives**

* Recognizes and understands uses of different types of material handling equipment
* Safely operates forklifts, tractors, hand trucks and dollies
* Operates conveyor systems safely and within operational guidelines
* Operates automated storage systems in a manner that assures efficiency and safety

**Chapter 4: Safety Principles (4 hrs)**

**Lesson Description**

This chapter introduces the concept of safety in the logistics environment. The student will learn about worker and workplace safety principles including accident preventions. They will also learn about government safety requirements.

**Learning Objectives**

* Participates in all national, state, and local safety training requirements
* Complies with relevant safety standards
* Maintains a clean and orderly work area
* Maintains a safe and healthy work environment
* Follows emergency procedures in the event of an incident or accident

**Chapter 5: Safe Material Handling and Equipment Operation (4 hrs)**

**Lesson Description**

This chapter introduces the concept of safety on the job for material handling workers. Students will learn safe material handling and lifting practices. They will also learn proper use of personal protective equipment. This chapter also includes basic safety concepts for material handling equipment.

**Learning Objectives**

* Applies safe material handling procedures
* Demonstrates safe lifting and carrying practices
* Identifies and complies with safety markings displayed on containers and cargoes
* Identifies, monitors, and reports potential work hazards, out-of-compliance conditions, and safety concerns immediately
* Uses appropriate personal protective equipment

**Chapter 6: Quality Control Principles (4 hrs)**

**Lesson Description**

This chapter introduces the principles of quality control in a logistics facility. Students will learn about quality control systems such as: Six Sigma, TQM, Lean, PDCA, etc. They will also learn about the role of the front-line worker in quality control including audits and managing non-conformities.

**Learning Objectives**

* Participates in quality control programs and initiatives
* Monitors and maintains calibration, preventative, and corrective maintenance schedule according to company specifications
* Uses established procedures to promptly document and communicate quality problems or issues
* Participates in quality audit processes
* Presents quality improvement recommendation in a clear and concise manner

**Chapter 7: Work Communications (4 hrs)**

**Lesson Description**

This chapter covers communication skills in the workplace. Students will learn about internal and external communication including clear communication between shifts.

**Learning Objectives**

* Facilitates communication between shifts by providing input about completed work, work that remains to be completed, and shift problems or issues
* Effectively communicates appropriate information to both internal (i.e., coworkers, supervisors, management, etc.) and external customers
* Clearly and effectively communicates thoughts, ideas, and information orally and in writing
* Effectively employs communication practices to solve interpersonal problems
* Communication reflects a clear understanding and accurate use of logistics nomenclature and terminology
* Effectively elicits clear statements of customer requirements and specifications
* Effectively applies appropriate actions for handling customer complaints

**Chapter 8: Teamwork and Good Workplace Conduct (4 hrs)**

**Lesson Description**

This chapter covers basic problem-solving skills, effective teamwork and meeting goals (SMART). Students will learn how to be an effective team-member.

**Learning Objectives**

* Demonstrates ethical and responsible behavior at work through the appropriate use of company IT systems, handling of tools and equipment, handling of proprietary information, communications with co-workers, management, customers, and suppliers
* Leveraging of the company’s Code of Conduct
* Demonstrates an understanding of work requirements and agreements
* Applies problem solving tools and procedures to identify problems and suggest potential solutions
* Effectively works in a team environment to solve problems
* Demonstrates characteristics of an effective team member in a logistics operation

**Chapter 9: Using Computers (3 hrs)**

**Lesson Description**

This chapter introduces students to general computers and general computer software used in a logistics environment. Students will also learn about general technology used in a logistics environment (e.g. bar codes, RFID, etc.)

**Learning Objectives**

* Demonstrates effective use of computer systems and software applications to fulfill roles and responsibilities (email, word processing, spreadsheets)
* Demonstrates and understanding of common software systems used in a logistics operation (e.g., Order Management System, Warehouse Management System, etc.)

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| **Learning Objectives**  **CLT Level**  **Chapter 1: Product Receiving (4 hrs)**  **Lesson Description**  This chapter covers the activities involved in receiving products into a logistics facility. Students will learn how the receiving activity is important to all aspects of logistics including: production, inventory control and quality control. They will also learn the types of documentation used in the receiving department.  **Learning Objectives**   * Inspects seals and trailer number of inbound truck prior to entry into the yard and prior to unloading products * Verifies documents (e.g., bill of lading, packing lists, etc.) against products being delivered * Conducts breakdown of bill of lading to establish proof of delivery * Properly secures trucks to ensure safe unloading of products * Inspects load conditions prior to unloading products * Ensures that products are unloading according to relevant governmental regulations, company policies and safe work practices * Checks products (i.e. overage, shortage and damages) while they are being unloaded * Accurately identifies damaged products * Appropriately processes inbound discrepancy reports (i.e. overage, shortage and damages) when necessary * Logistics forms (i.e., bill of lading)   **Chapter 2: Product Storage (4 hrs)**  **Lesson Description**  This chapter covers the activities involved in stocking products. Students will learn what factors affect how products are stored including: product shelf-life, hazards, weight and size. They will also learn about the importance of proper routing of products and safe storage.  **Learning Objectives**   * Appropriately puts products away in assigned locations * Appropriately determines the most effective means to segregate allocated items * Appropriately routes products in automatic back orders straight to shipping staging area |

**Chapter 3: Order Processing (4 hrs)**

**Lesson Description**

This chapter explains the product order cycle. Students will learn about various picking processes and how they impact warehouse operations. They will also learn about the importance of picking accuracy and common order picking forms.

**Learning Objectives**

* Inspects pick tickets
* Accurately pulls from storage products identified in pick tickets
* Appropriately stages pulled products for shipping
* Conducts audits to ensure pulled products are as ordered
* Accurately processes paperwork to develop packing manifest

**Chapter 4: Packaging and Shipment (4 hrs)**

**Lesson Description**

This chapter explains packaging and shipping procedures. Students will learn what types of packaging are best suited to products. They will also learn about shipping documentation and basic load distribution principles.

**Learning Objectives**

* Uses appropriate packing materials to package products, when necessary
* Uses appropriate packaging tools best suited for handling and packaging products
* Protects products from weather
* Verifies that outbound product counts are accurate and products are free from defect
* Verifies outbound products against customer orders
* Verifies that products are appropriately labeled in accordance with domestic and international regulations and company policy
* Verifies that the right packages are being loaded in the right trailer
* Verifies that packages are securely loaded into trailers based on safe loading procedures

**Chapter 5: Inventory Control (4 hrs)**

**Lesson Description**

This chapter explains how inventory control affects overall operation. Students will learn basic inventory management principles, stock rotation and inventory tracking methods. They will also learn about the technology used to control and monitor inventory.

**Learning Objectives**

* Maintains inventory accuracy
* Applies appropriate inventory maintenance procedures to manage surplus, slow moving and obsolete stock
* Appropriately applies FIFO and LIFO techniques to minimize damage to products based on obsolescence and seasonality
* Accurately uses material identification systems to optimize inventory levels for overstock and under stock
* Deploys proper handling controls for returned products according to established procedures
* Maintains accurate records of returned products

**Chapter 6: Safe Handling of Hazardous Materials (4 hrs)**

**Lesson Description**

This chapter provides an overview of the safe handling of hazmats. Students will learn hazmat classification. They will also learn about the rules and regulations that affect hazmat storage and transport.

**Learning Objectives**

* Unloads and loads hazardous materials according to relevant governmental regulations, company policies and safe work practices
* Transfers and stores hazardous materials in proper storage locations per relevant governmental regulations, company policies and safe work practices
* Effectively identifies hazardous materials in shipping documentation

**Chapter 7: Evaluation of Transportation Modes (4 hrs)**

**Lesson Description**

This chapter explains, in detail, the various transportation modes used to transport products throughout the supply chain. Students will learn the advantages and disadvantages of common transport methods. They will also learn about the rules and regulations that affect transport of goods.

**Learning Objectives**

* Understands factors used in evaluating transportation modes to determine optimum choices considering cost, safety, customer requirements, nature of shipment and timelines
* Understands how to use and maintain files related to various performance trends of different transportation modes to permit rapid decision making
* Completes all required transportation documents in accordance with company requirements

**Chapter 8: Dispatching and Tracking Operations (4 hrs)**

**Lesson Description**

This chapter explains how products are managed during transport, both domestically and internationally. Students will learn about basic customs documentation and the rules and regulations guiding international transport of products.

**Learning Objectives**

* Correctly prepares inbound and outbound shipment receipts and documentation
* Effectively evaluates consignments loads to identify type, capacity and compatibility of cargo
* Maintains effective records of cargo/container movement
* Verifies that vehicle loads are under legal weight limits
* Tracks trailer and container movement within the yard, including monitoring and minimizing detention costs
* Appropriately coordinates multiple transportation mode transfers
* Appropriately distributes loads and builds trucks to ensure vehicle loads are under legal weight limits
* Appropriately coordinates necessary reports related to import/export process
* Identifies and implements proper forms and practices related to the import/export of materials
* Identifies governing agencies responsible for import/export regulation enforcement

**Chapter 9: U.S. Metric Conversions (3 hrs)**

**Lesson Description**

This chapter explains basic measurement techniques. Students will also learn how to convert measurements between U.S. and metric systems.

**Learning Objectives**

* Demonstrates working knowledge of U.S. measurement systems
* Understands how to convert U.S. measurements to and from the metric system

**Method of Instruction:**

Lecture / Discussion

Class Demonstration/Labs  
Online Coursework

**Required Materials:**

Textbooks

Calculator

Spiral Notebook

**Method of Evaluation**

Attendance

Quizzes/Tests

Instructor Observation