Transportation, Distribution and Logistics

Pathway: Warehousing and Distribution Center Operations

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
TRPC01.01	Warehousing and Distribution Center Operations	#7: Inventory Control and Management #8: Shipping and Receiving #11: Personnel Management	Prepare, process, and store incoming and outgoing goods and materials.	Develop packaging, storage, and handling solutions for goods and materials.	Determine potential risks or damage from normal rigors including compression, shock, drop, moisture, corrosion, vibration, temperature, and motion during transportation and handling.
					Determine potential hazards to other goods and materials and health, safety and environmental risks.
					Determine size, weight, and shape requirements for packaging solutions.
					Determine best handling and storage methods and additional packaging requirements for these methods.
					Determine customer visual design and appearance requirements including handling information, warnings, display requirements, and required documentation.
					Determine other customer functional requirements including display/presentation and assembly and use requirements.
					Develop and test alternative packaging solutions and document test results.
					Document and develop prototypes of proposed packaging solution meeting requirements.
					Present and explain solution to customers (e.g., business meetings).
					Identify and map potential locations.
					Evaluate alternative locations and determine service level and cost differences.
					Select locations.
					Document (e.g., report, memo, tables) evaluation process and location decisions.
					Present and explain information on location process and decisions (e.g., business meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Develop warehousing solutions to meet customer and business requirements.	Determine customer requirements for warehousing services including processing, handling, and storing goods and materials including additional logistics and information services (e.g., reviewing customer compliance manuals).
					Project short-term and long-term demand for warehousing services including the volume and flow of goods and materials to and from warehouse(s).
					Determine and map warehouse location(s).
					Determine size and configuration of warehouse structure and infrastructure requirements and develop external layout plan (e.g. access roads, lots, dock configuration).
					Develop internal layout plan including areas for processing incoming and outgoing products, cross-docking, and storage.
					Select material handling and storage equipment.
					Develop policies and procedures for processing goods and materials that meet customer requirements and comply in government regulations.
					Determine documentation and information requirements for managing warehouse operations.
					Develop report on proposed warehousing solution.
					Present and explain information on warehousing solution (e.g., business meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Process incoming products including unloading, receiving, checking, marking/identification and transporting to storage pick-up areas, work stations, or outbound staging areas and storing products for order-picking.	Determine scheduled volume and flow of incoming products for day/week.
					Determine equipment and staffing requirements and develop traffic management and work schedules.
					Select space for storing or cross-docking of incoming products.
					Develop instructions and related documentation (e.g., labels) for internal processing/storage.
					Confirm documentation (e.g., bill of lading, packing lists, MSDS sheets) and seals on incoming products and accept shipments.
					Unload and confirm quantity and contents of shipments and inspect for damage/hazards.
					Move to storage and cross-docking areas.
					Complete documentation on incoming processing and condition of products.
					Complete daily/weekly reports for customers and business on processing activities and inventory.
					Present and explain reports at business meetings.

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Process outbound shipments including order-picking, sorting and checking; packaging, sealing, weighing, and manifesting; and loading and load balancing and shipping.	Determine scheduled volume and flow of outbound products for day/week.
					Determine equipment and staffing requirements and develop traffic management and work schedules.
					Develop instructions for picking, moving, unitizing, and packaging outbound shipment.
					Develop and package shipping documentation (e.g., bill of lading, packing lists, international documentation, placards, MSDS sheets).
					Pick, assemble and package orders and load and secure them within containers and transport equipment (e.g. truck trailers, rail cars).
					Transfer and process documentation with transporter.
					Complete documentation on outbound processing.
					Complete daily/weekly reports for customers and business on processing activities and inventory.
					Present and explain reports at business meetings.
				Manage inventory according to company policies and customer requirements.	Forecast demand for products and materials for shipping.
					Determine required inventory levels to meet projected demand and maintain customer defined service levels (i.e., safety stock levels).
					Project incoming shipment level and schedules to maintain inventory levels.
					Conduct inventory control audits and develop inventory control reports.
					Develop reports on inventory management and control.
					Present and explain information on location process and decisions (e.g., business meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
TRPC01.02	Warehousing and Distribution Center Operations	#9: Warehousing and Distribution Quality Control	Improve the performance of warehousing and distribution operations to meet customer and business requirements.	Improve warehousing operations systems, processes and procedures.	Compile warehouse performance data.
					Analyze performance relative to targets/standards and identify performance problems.
					Document and report system performance trends and problems using graphs/charts (e.g. reports, memos).
					Identify potential solutions.
					Evaluate and select best solutions.
					Present and explain information on system performance and proposed solutions (e.g., business meetings).
				Improve the performance and reliability of warehousing equipment and information systems.	Compile warehouse equipment/system performance and reliability data.
					Analyze performance relative to targets/standards and identify performance problems.
					Document and report system performance trends and problems using graphs/charts (e.g. reports, memos).
					Identify potential solutions.
					Evaluate and select best solutions.
					Present and explain information on performance/reliability and proposed solutions (e.g., business meetings).

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
TRPC01.03	Warehousing and Distribution Center Operations	#10: Compliance and Regulations	Maintain the compliance of transportation operations with company policies and government laws and regulations.	Maintain compliance with and performance of health, safety and environmental management system requirements.	Analyze changes in government laws and regulations and new customer requirements and determine required system changes.
					Conduct health, safety and environmental reviews/audits to determine level of conformity.
					Compile and analyze health, safety, and environmental incidence data and audit findings.
					Determine causes of system failures.
					Identify and evaluate alternative solutions.
					Develop report on system performance and proposed solutions.
					Present and explain report in business meetings.
				Maintain compliance with and performance of security and loss prevention systems.	Analyze changes in government laws and regulations (e.g., control of hazardous materials) and new customer requirements and determine required system changes.
					Conduct inventory control, security/loss prevention reviews and audits to determine level of conformity.
					Compile and analyze damage and loss data and audit findings.
					Determine causes of system failures.
					Identify and evaluate alternative solutions.
					Develop report on system performance and proposed solutions.
					Present and explain report in business meetings.

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Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Maintain compliance with and performance of quality management systems.	Analyze changes in government laws and regulations (e.g., government procurement) and new customer requirements (e.g., ISO 9000) and determine required system changes.
					Conduct quality reviews and audits to determine level of conformity.
					Compile and analyze quality failure cost data and audit findings.
					Determine causes of system failures.
					Identify and evaluate alternative solutions.
					Develop report on system performance and proposed solutions.
					Present and explain report in business meetings.

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