## Minnesota Dual-Training Pipeline Competency Model for Advanced Manufacturing Occupation: Logistics and Supply Chain Manager

Personal Effectiveness Competencies  Maintenance, installation and repair  Workplace Competencies  Creative thinking and problem solving  Writing  Mathematics  Maintenance, installation and repair  Workplace Competencies  Creative thinking and problem solving  Coordinating  Customer focus  Academic Competencies  Communication: listening and speaking  Writing  Mathematics  Science  Communication: listening and speaking  Mathematics  Computer speaking  Personal and safety  Sustainable practices  Communication: Critical and analytical computer speaking  Personal Effectiveness Competencies  Personal Effectiveness Competencies		
Practice business ethics Conduct customer service procedures Coordinate purchasing Conduct negotiations Operate tracking systems Analyze logistics design Assess production control capacity Plan production and materials required  Industry-Sector Technical Competencies*  Distribution   Business math/accounting   Computer information systems   Warehousing Demand planning   Customer service/fulfillment   Procurement   Logistics strategy Global business   Inventory management   Continuous improvement, LEAN processes  Industry-Wide Technical Competencies  Industry-Wide Technical Competencies  Industry-Wide Technical Competencies  Maintenance, installation and repair continuous improvement   Quality the supply chain/supply chain/supply chain/supply chain/supply chain logistics improvement  Workplace Competencies  Workplace Competencies  Teamwork   Creative thinking and problem and recording with tools, safety and environment  Workplace Competencies  Academic Competencies  Creative thinking and problem and recording with tools, safety  Academic Competencies  Communication:   Critical and analytical computer skills  Personal Effectiveness Competencies  Personal Effectiveness Competencies  Personal Effectiveness Competencies  Installative   Dependability   Adaptability   Lifelong thinking and particular skills	Employer-Specific Requirements	Occupation-Specific Competencies*
Distribution Business math/accounting Computer information systems Warehousing  Demand planning Customer service/fulfillment Procurement Logistics strategy  Global business Inventory management Continuous improvement, LEAN processes  Industry-Wide Technical Competencies  Industry-Wide Technical Competencies  Industry-Wide Technical Competencies  Manufacturing process design/design/development Interprocess design/development Interprocess design/development Interprocess  Workplace Competencies  Vorkplace Competencies  Scheduling and coordinating problem solving Interprocess and equipment health, safety and environment interprocess and equipment problem solving Interprocess and equipment problem solving Interprocess Interproce		Practice business ethics Conduct customer service procedures Coordinate purchasing Conduct negotiations Operate tracking systems Analyze logistics design Assess production control capacity
Demand planning   Customer service/fulfillment   Procurement   Logistics strategy	Industry-Sec	tor Technical Competencies*
Industry-Wide Technical Competencies   Industry-Wide Technical Competencies	Distribution   Business math/accou	nting   Computer information systems   Warehousing
Industry-Wide Technical Competencies  Itainable and renewable roduction compliance design/ development    Department   Dep	Demand planning   Customer ser	vice/fulfillment   Procurement   Logistics strategy
Maintenance, installation and repair  Workplace Competencies  Workplace Competencies  Creative thinking and coordinating focus mentals  Writing  Writing  Maintenance, installation and repair  Maintenance, installation and repair  Maintenance, installation and repair  Chain/supply chain/supply chain/supply chain logistics  Working with tools, technology and recording  Working with tools, technology and analytical computer speaking  Writing  Mathematics  Science  Communication: listening and analytical thinking skills  Personal Effectiveness Competencies  Personal Effectiveness Competencies  Personal Effectiveness Competencies	Global business Inventory mar	nagement   Continuous improvement, LEAN processes
Maintenance, installation and repair design/ development  Workplace Competencies  Siness mentals  Teamwork Customer focus  Maintenance, installation and repair  Workplace Competencies  Creative thinking and problem solving  Academic Competencies  Academic Competencies  Writing Mathematics  Science  Communication: listening and speaking  Writing Mathematics  Computer Science  Communication: listening and speaking  Maintenance, installation the supply chain/logistics  Production in the supply chain/supply chain/supply chain/logistics  Personal Working with tools, and recording  Working with tools, and safety  Sustainable practices  Communication: listening and speaking  Personal Basic computer skills  Personal Effectiveness Competencies	Industry-Wi	·
Teamwork Customer focus  Academic Competencies  Writing Mathematics Science Computer Science Science Computer Speaking Science Competencies  Personal Effectiveness Competencies  Personal Effectiveness Competencies  Integrity Professionalism Initiative Dependability Adaptability Lifelong	Production compliance process design/	Maintenance, installation and repair  Maintenance, installation the supply chain/supply chain logistics improvement  Production in Quality assurance and continuous improvement  Quality assurance and health, safety and
Scheduling and coordinating broblem solving and recording with tools, technology and safety  Academic Competencies  Writing Mathematics Science Communication: listening and speaking thinking and safety  Personal Effectiveness Competencies  Personal Effectiveness Competencies  Initiative Dependability Adaptability Lifelong	Wor	kplace Competencies
Writing Mathematics Science Communication: Critical and analytical computer skills  Personal Effectiveness Competencies  Professionalism Initiative Dependability Adaptability Lifelong	Business Scheduling and coordinating	thinking and examining with tools, problem and technology health Sustainable practices
Writing Mathematics Science listening and speaking analytical computer skills  Personal Effectiveness Competencies  Professionalism Initiative Dependability Adaptability Lifelong	Acad	demic Competencies
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Based on: Advanced Manufacturing Competency Model, Employment and Training Administration, United States Department of Labor, February 2025. For more detailed information about competency model creation and sources, visit dli.mn.gov/business/workforce/advanced-manufacturing.

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## Competency Model for Logistics and Supply Chain Manager

**Logistics and Supply Chain Manager** – An individual who plans, directs, and coordinates purchasing, warehousing, distribution, forecasting, customer service, or planning services for an advanced manufacturing company. The individual also manages logistics personnel and logistics systems and directs daily operations of the logistics priorities at the manufacturing facility.

\*Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job (OJT) training opportunities.

## **Industry-Sector Technical Competencies**

**Related Instruction** for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee's current or intended occupation.

- **Inventory management** Demonstrate the ability to manage a warehouse or storage facility of inventory for a manufacturing production facility.
- **Computer information systems** Understand and demonstrate proficiency in various computer information systems used in manufacturing.
- **Business math/ accounting** Know how to do the basic functions of math to track orders, purchases, shipments, etc. and potentially use accounting software to assist in this process as well.
- **Warehousing** Demonstrate proficiency with efficient storage and control of the environment within a warehouse or other storage facility in a manufacturing setting.
- **Demand planning** Demonstrate proficiency with planning to fill existing and future demand for product.
- **Customer service/fulfillment** Demonstrate proficiency in high quality customer service, both in written and oral communication.

- Procurement Understand the methods for ensuring resources are available to purchase resources to have success in meeting orders and needs of the manufacturing production facility.
- **Logistics strategy** Understand the theory and application of on-the-ground approaches to ensuring adequate materials are available to meet demand.
- **Global business** Demonstrate proficiency with the customer base, be it local, statewide, nationwide, or international manufacturing businesses.
- **Distribution** Understand all transportation systems comprising the movement of goods and services from within the manufacturing production site to the product delivery to the customer to ensure job completion.
- **Continuous improvement, LEAN processes** Means and practices by which an organization can decrease the time required or improve efficiency in production, quality work environment, and reduction of waste.

## **Occupation-Specific Competencies**

**On-the-Job Training** is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Perform warehouse operations** Understanding of warehouse operations, unique to organization, and practice throughout field for manufacturing production facilities.
- **Practice business ethics** Applied ethical practices that ensure fair business operations for the manufacturer.
- **Conduct customer service procedures** Clear communication, both written and oral, to ensure a content customer.
- **Coordinate purchasing** Understanding of the acquisition of goods or services to achieve manufacturing organization goals.
- Conduct negotiations Demonstrated ability to research and communicate about the costs of
  goods and services to secure the most cost-effective option to meet the needs of the
  manufacturing facility.
- **Operate tracking systems** Understanding of individual tracking systems for the production facility.

- **Analyze logistics design** Understand how to develop and interpret logistics designs both within the field and unique to a manufacturer.
- **Operate tracking systems** Understanding of individual tracking systems for the production facility.
- **Assess production control capacity** Demonstrated understanding of organizational need to produce inventory to have on hand, without creating waste for the manufacturer.
- **Plan production and materials required** Managing the ability to meet product orders by first ensuring facility has systems, tools, and employees to take on new product and ensuring that enough raw materials are available to go forward with production.

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