**Course Description:**

Logistics Management explores how businesses develop plans and networks to move materials, information, products and services through organizations. Learners will develop knowledge and skills to design receiving and fulfillment processes, conduct inventory management and plan for preventative maintenance and compliance. This course also includes learning outcomes in global business and project management.

**Strand 1. Business Operations/21st Century Skills**

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

**Outcome 1.3 Business Ethics and Law**

Analyze how professional, ethical, and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

**Competencies**

1.3.5 Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.

**Strand 2. Business Foundations**

Learners acquire foundational knowledge of business activities supported by economic principles, business processes and global business considerations.

**Outcome 2.3 Global Business**

Relate global business functions to internal business operations, activities and strategies.

**Competencies**

2.3.3 Explain the impact of a country's economic development on global trade (e.g., type of economic system, natural resources, educational level, types of industries, infrastructure, technology availability or adoption).

2.3.4 Describe the impact of digital communication tools (e.g., Internet, video- and computer conferencing, webcasts, email, social media, digital communications) on global business activities.

2.3.6 Describe product standards’ issues associated with global business.

2.3.7 Describe costs associated with global business, methods used to analyze those costs and the role of outsourcing and offshoring in cost management.

2.3.8 Describe regulatory policies and the government agencies that influence global trade and describe their impact.

**Strand 4. Business Governance**

Learners acquire foundational legal knowledge and apply business governance principles to minimize risk, maintain organizational compliance and establish and maintain organizational structure.

**Outcome 4.2 Contract Oversight**

Administer and evaluate contracts.

**Competencies**

4.2.1 Distinguish among types of contracts (e.g., express, written, implied, bilateral, unilateral, quasi, promissory estoppel, counteroffer, executory, executed, implied, valid, voidable, void, letters of intent).

4.2.2 Explain the difference between an offeror and offeree, as it relates to a contract.

4.2.3 Identify the components of a legally enforceable contract (e.g., offer, acceptance, consideration, legality, capacity, consent, writing [if applicable]).

4.2.4 Determine if a contract contains all of the necessary components to be legally enforceable.

4.2.8 Implement the process to monitor contract terms for compliance and to protect against breach of contract or default.

4.2.11 Explain factors to consider (Mirror Image Rule, Uniform Commercial Code [UCC], clickwrap and browser wrap agreements) when evaluating offers.

**Outcome 4.3 Compliance**

Identify policies, processes and strategies to manage compliance.

**Competencies**

4.3.6 Analyze existing policies, procedures and documents to ascertain compliance with regulatory requirements and self-regulatory guidelines.

4.3.7 Discuss methods for documenting adherence to compliance policies and procedures.

**Strand 6. Business Management**

Learners identify and apply policies, processes and strategies for effective management of information, projects, strategy and talent.

**Outcome 6.1 Management Fundamentals**

Identify business management functions and strategies.

**Competencies**

6.1.12 Explain the role and function of quality management.

**Outcome 6.4 Project Management**

Plan, manage and evaluate projects.

**Competencies**

6.4.3 Define project objectives, scope, outputs, and resource requirements (i.e., project charter and statement of work).

6.4.4 Document, sequence, allocate, and schedule activities to facilitate on-time and on-budget completion of project by qualified resources.

6.4.5 Monitor changes to project scope and critical path and make adjustments to project activities.

6.4.6 Manage project schedule, monitor completion status, identify potential delays and review costs.

6.4.7 Communicate project completion status and potential delays to stakeholders.

6.4.8 Manage the project team to reduce conflict and meet project objectives (e.g., establish group norms, identify and provide training opportunities, facilitate cross-team communication, catalog and resolve issues, provide feedback).

6.4.9 Complete project closing activities (e.g., obtain buyer acceptance, finalize billing, archive documentation).

6.4.10 Evaluate project results (e.g., compare project results to expectations, conduct surveys, review lessons learned), and recommend follow-up actions.

**Strand 7. Operations Management**

Learners identify and apply policies, processes and strategies for business operations.

**Outcome 7.1 Safety, Health and Security**

Identify, administer and evaluate safety, health and security policies, processes and strategies.

**Competencies**

7.1.2 Identify types of hazardous materials, and describe their impact on human health and environmental resources.

7.1.3 Describe the requirements for the treatment, storage, and disposal of hazardous materials, and evaluate the impact of hazardous materials.

7.1.6 Explain the role and function of safety inspections.

7.1.9 Describe the importance of reporting and investigating safety and security incidents.

7.1.11 Explain how emergency and incidence response plans are adjusted to address hazardous materials’ presence or release.

**Outcome 7.2 Sourcing and Procurement**

Plan, implement and evaluate sourcing and procurement activities.

**Competencies**

7.2.1 Differentiate among purchasing, procurement and sourcing.

7.2.2 Identify potential sources of materials or services locally, and make purchasing recommendations.

7.2.3 Evaluate the impact of using global sources.

7.2.4 Describe how the bid or contracting process (e.g., bid specification, vendor or supplier search, bid review, selection of vendor) impacts business objectives.

**Outcome 7.3 Inventory Management**

Identify, administer and evaluate inventory management policies, processes and strategies.

**Competencies**

7.3.1 Calculate the cost of carrying inventory.

7.3.2 Identify the advantages and disadvantages of Just-in-Time (JIT) inventory processes.

7.3.3 Describe the factors considered in establishing inventory thresholds (e.g., tolerance for stock-outs, supply chain process goals).

7.3.4 Maintain inventory systems and controls to efficiently monitor, safeguard, and replenish inventory (e.g., JIT, Lean, FIFO, LIFO, inventory counts) based on usage levels, lead times and forecasts.

7.3.5 Explain the difference between demand forecasts and capacity planning strategies (e.g., lead strategy, lag strategy, match strategy).

7.3.6 Explain the role and function of a master production schedule.

7.3.7 Identify ways to evaluate the effectiveness and efficiency of a master production schedule.

7.3.12 Describe performance metrics (e.g., sales, stock, inventory performance) used to select a distribution strategy.

7.3.13 Conduct inventory valuation (e.g., First In First Out, Last In First Out, average cost).

7.3.14 Explain the importance of planning for inventory disruptions (e.g., stockout, dead, discontinued, obsolete).

7.3.15 Identify factors that impact the availability of inventory.

7.3.16 Describe how inventory management principles apply to intangible services.

7.3.17 Describe different methods to conduct a physical inventory (e.g., annual, cycle count, ABC analysis).

**Outcome 7.5 Facilities Management**

Identify, administer and evaluate methods of maintaining facilities, equipment and property.

**Competencies**

7.5.1 Identify routine activities for maintaining, disposing, retiring and replacing business facilities and equipment.

7.5.2 Create a preventive maintenance program that considers workflow efficiencies and production requirements.

7.5.3 Monitor, evaluate, and improve maintenance program.

7.5.7 Develop a strategy to optimize the use of a facility’s space (e.g., spacial configuration, renovations, energy use, preventative maintenance plans).

**Outcome 7.6 Distribution and Logistics Management**

Plan, implement and evaluate transportation methods for incoming and outgoing products and services.

**Competencies**

7.6.1 Describe factors that could impact the design of transportation, distribution and logistics strategies (e.g., geographical locations, transportation costs, storage capacities, process design, regulations).

7.6.2 Compare and contrast the transportation systems for tangible and intangible items (e.g., natural gas, electricity, telecommunications).

7.6.3 Analyze the cost structure and advantages and disadvantages of different transportation modes.

7.6.4 Analyze the impact of facility size and layout on inventory management, materials handling and logistics.

7.6.5 Explain the role and function of receiving and fulfillment processes.

7.6.6 Explain the role and function of packaging and select materials to pack process.

7.6.7 Develop transportation plans that comply with regulatory requirements.

7.6.8 Describe licensing regulations and the process to obtain releases and clearances to export products.

7.6.9 Describe commonly used metrics for evaluating transportation efficiency and effectiveness.

7.6.10 Explain how to tag and code products to track the movement of inventory.

7.6.11 Describe tagging and coding processes used to track the movement of products.

7.6.12 Describe reverse logistics’ processes and costs, and strategies used to reduce costs.

**Outcome 7.7 Supply Chain Management**

Plan, implement and evaluate supply chain management activities.

**Competencies**

7.7.3 Describe how the supply chain impacts customer satisfaction.

**Outcome 7.8 Operations Risk Management**

Identify, administer and evaluate policies, processes and strategies to manage risk of operational failure.

**Competencies**

7.8.3 Explain factors used to reduce the risk of routine and non-routine operational failures (e.g., automation, procedures, checklists).

**Strand 9. Financial Analysis and Evaluation**

Learners apply principles of financial and managerial accounting to collect, analyze and distribute financial data, evaluate investment opportunities and operate financial services.

**Outcome 9.7 Managerial Accounting**

Apply principles of accounting to analyze financial information for internal decision-making.

**Competencies**

9.7.4 Compute contribution margin and contribution margin ratio. Use these calculations to compute break-even and prepare cost, volume and profit analysis.

9.7.5 Allocate service department costs and corporate support costs.

9.7.6 Apply cost and revenue data for short-term and long-term decision-making, strategic planning, and forecasting.

9.7.7 Project future revenues and expenses for budgeting and forecasting purposes.