Program Learning Outcomes Alignment to Unit Learning Outcomes

Adopted by LGM Advisory Board June 2022

(Updated verbaige in PLO denoted in orange text.)

1	Demonstrate basic understanding of logistic software systems and applications, including common applications, components, uses, processes, infrastructures, and e-Commerce management tools.
a	Explain the managerial and strategic applications of information systems.
b	Discuss the basic concepts involving systems architecture and infrastructure.
c	Describe the components/decisions that comprise typical logistic systems.
d	Define the critical role of technology in managing transportation operations and product flows, including the latest TMS tools for routing, scheduling, load planning, carrier selection, load tendering, status tracking, appointment scheduling, performance reporting, score-carding, and auditing.
e	Demonstrate an understanding of retailing in E-commerce by: Technology for spend analysis, competitive bidding, eProcurement, eSourcing, auctions/reverse auctions, contract compliance, and performance management
f	Demonstrate an understanding of retailing in E-commerce by: Analyzing branding and pricing strategies; Using and determining the effectiveness of market research; Assessing the effects of disintermediation.
g	Discuss the decision-making process of consumer purchasing online
h	Describe the infrastructure for E-commerce
i	Analyze the impact of E-commerce on business models and strategy
2	Demonstrate the ability to perform demand management to improve efficiency, perform inventory control measures, and optimize warehouse layouts.
a	Understand effective inventory management policy, demand variability, forecasting and lead time on inventory level and cost.
b	Describe basic demand forecasting methods.
c	Explain optimal order quantity.
d	Explain the advantages/disadvantages of different costing methods.
e	Discuss the assumptions surrounding the EOQ model.
f	Explain the meaning and the need for warehousing.
g	Explain the characteristics of an ideal warehouse, including location, layout, information technologies, equipment, personnel management, and security procedures.
h	Describe the four main functions of a warehouse and the activities inside each function.
i	Discuss how a warehouse can add value to a supply chain, including how to develop a balance between warehouse service level and the customers' needs, and implement quality control.
j	Identify, calculate, and explain the costs of a warehouse, including basic statistical measures for productivity, and determining when to outsource activities.
k	Define inventory management and stock control, and explain using ABC analysis for conducting a physical and cycle inventory count.
l	Name and explain at least 4 government regulations that impact a warehouse.
m	Identify who is responsible for health and safety in a warehouse, and describe the safety measures that should be taken, including ergonomics, procedures, security, and physical arrangements.
n	Describe how changes in the global and local supply chain impacts processes in warehousing operations, including reverse logistics.
o	Develop and employ basic customer demand forecasts
p	Plan the timely production of goods and services
q	Plan for and manage the distribution of the goods and services

Program Learning Outcomes Alignment to Unit Learning Outcomes

3	Explain the impact of logistics and supply chain operations on a firm's profitability, identifying the steps necessary for strategic procurement to evaluate and purchase a product or service, global sourcing, and strategic supplier evaluations, as well as complete basic cost-benefit analysis.
a	Define and apply the relationships of:
b	Basic supply management definitions, concepts, purposes, functions, processes, and goals
c	Linkages between procurement and other business functions
d	Day-to-day transactional and long-term strategic [procurement] activities
e	Requirements and challenges of global sourcing, including insource vs. outsource decisions; TCO analysis; risk management; negotiations, and supplier contract compliance
f	Best practices for assessing [procurement] performance using standard metrics and frameworks
g	Category analysis, supplier selection, contract negotiation, supplier relationship management, and performance evaluation
h	Principles and strategies for establishing efficient, effective, and sustainable [sourcing] operations, from sourcing teams to supplier rationalization
i	Understand the need for and insure the accomplishment of quality goods and services
j	Create a fundamental cost-benefit analysis
k	Explain how a certain product(s) or process can improve the overall logistics process

4	Explain the role of transportation management and identify the resources needed for domestic and global transactions and shipments.
a	Understand basic terminology and transport operations in the context of today's business environment.
b	List key elements, processes, and interactions of transportation operations management, including transportation modes, execution, and control.
c	Design principles and strategies for establishing efficient, effective, and sustainable transportation operations, including functional control, terms of sale, outsourcing, modal and carrier selection, rate negotiation, contracting, consolidation, 3PLs, sustainability, and overcoming barriers to success.
d	Understand basic international issues involved in transportation, including the requirements and challenges of planning and moving goods between countries, such as freight flows, intermodal options, planning/execution, ocean shipping and international air services; customs; global challenges, and regulation.
e	Identify best practices for assessing [transportation] performance using standard metrics and frameworks, including KPIs, tradeoff analysis, and more.
f	Understand and apply the business aspects of globalization and their impacts to developing global supply chain management.
g	Gain fundamental knowledge on political, legal, economical, and environmental aspects of global supply chain management.
h	Apply the fundamental elements of global logistics, international sourcing, and materials management to firms' global supply chain management.
i	Utilize international transportation such as ships, airplanes, trains, and trucks to facilitate global movement of goods.
j	Develop basic skills to employ intermediaries such as banks, brokers, and so on for international transactions.
k	Incorporate the role of logistics into global supply chain management.

Program Learning Outcomes Alignment to Unit Learning Outcomes

5	Demonstrate employability skills including effective communication, planning, critical thinking and problem solving, quality customer service skills, conflict resolution, ethical practices, and decision making.

- a Define the importance of planning, management, team building, and organization
- b Explain how leadership and communication affect project management
- c Applications of law and ethics in procurement, and social responsibility
- d Be able to draw conclusions based on facts, statistics, and information
- e Observe and study business operations and then describe the logistics systems in oral and written presentations.

6	Exhibit ability to work on a team project, develop and complete a project plan with budget, present a professional presentation, as well as demonstrate effective use of digital literacy tools/ resources (including data bases, spreadsheets, software systems, reporting).

- a Understand the nine project management knowledge areas: project, integration, scope, time, cost, quality, human resource, communications, risk, procurement management
- b Understand the five process groups [in a project]: initiating, planning, executing, controlling, closing
- c Define what project management is all about and how to approach it successfully
- d Explain the selection of a project manager and defining the goals of the project
- e Demonstrate the use of budgeting in project management, including cost and personnel budgeting
- f Describe the importance of estimating, guessing and milestones in project scheduling
- g Explain how variables and risks should be approached when planning a project
- h Demonstrate the ability to display professionalism and self-promotion
- i Apply concepts learned in class to implement a sales presentation

7	Explain and define the relationships of the key participants in logistics and the supply chain as a whole, and differentiate the processes that connect each participant, including sourcing, production and distribution, operations management, modality management, technological services, and strategic alliances.

- a Demonstrate understanding of basic terminology and supply chain operations in the context of today's business environment.
- b Understand the importance of strategic supply chain alliances and the impact of centralized versus decentralized networks.
- c Understand how supply chain management impacts society.
- d Manage the operations process
- e Describe operations management
- f Demonstrate a basic understanding of the factors that influence facility location decisions.
- g Be able to recommend areas for improvement in logistics and supply chain operations.

Course	Course Learning Outcomes (CLOs)	Final PLO Placement
Fund Computer Ops / E-Commerce	Analyze the impact of E-commerce on business models and strategy	1
Fund Computer Ops / E-Commerce	Demonstrate an understanding of retailing in E-commerce by: Analyzing branding and pricing strategies; Using and determining the effectiveness of market research; Assessing the effects of disintermediation.	1
Fund Computer Ops / E-Commerce	Describe the infrastructure for E-commerce	1
Fund Computer Ops / E-Commerce	Discuss the decision-making process of consumer purchasing online	1
International Lgm	Apply the fundamental elements of global logistics, international sourcing, and materials management to firms' global supply chain management.	4
International Lgm	Develop basic skills to employ intermediaries such as banks, brokers, and so on for international transactions.	4
International Lgm	Gain fundamental knowledge on political, legal, economical, and environmental aspects of global supply chain management.	4
International Lgm	Incorporate the role of logistics into global supply chain management.	4
International Lgm	Understand and apply the business aspects of globalization and their impacts to developing global supply chain management.	4
International Lgm	Utilize international transportation such as ships, airplanes, trains, and trucks to facilitate global movement of goods.	4
Operations Mgmt	Apply concepts learned in class to implement a sales presentation	6
Operations Mgmt	Be able to draw conclusions based on facts, statistics, and information	5
Operations Mgmt	Create a fundamental cost-benefit analysis	3
Operations Mgmt	Demonstrate the ability to display professionalism and self-promotion	6
Operations Mgmt	Describe operations management	7
Operations Mgmt	Develop and employ basic customer demand forecasts	2
Operations Mgmt	Explain how a certain product(s) or process can improve the overall logistics process	3
Operations Mgmt	Manage the operations process	7
Operations Mgmt	Plan for and manage the distribution of the goods and services	2
Operations Mgmt	Plan the timely production of goods and services	2
Operations Mgmt	Understand the need for and insure the accomplishment of quality goods and services	3
Principles of LGM	Be able to observe and study business operations and then describe the logistics/supply chain systems in oral and written presentations.	5
Principles of LGM	Be able to recommend areas for improvement in logistics and supply chain operations.	7
Principles of LGM	Demonstrate a basic understanding of the factors that influence facility location decisions.	7
Principles of LGM	Demonstrate understanding of basic terminology and supply chain operations in the context of today's business environment.	7
Principles of LGM	Describe basic demand forecasting methods.	2
Principles of LGM	Describe the components/decisions that comprise typical logistic systems.	1
Principles of LGM	Discuss the assumptions surrounding the EOQ model.	2
Principles of LGM	Discuss the basic concepts involving systems architecture and infrastructure.	1

Course	Course Learning Outcomes (CLOs)	Final PLO Placement
Principles of LGM	Explain optimal order quantity.	2
Principles of LGM	Explain the advantages/disadvantages of different costing methods.	2
Principles of LGM	Explain the managerial and strategic applications of information systems.	1
Principles of LGM	Understand effective inventory management policy, demand variability, forecasting and lead time on inventory level and cost.	2
Principles of LGM	Understand how supply chain management impacts society.	7
Principles of LGM	Understand the importance of strategic supply chain alliances and the impact of centralized versus decentralized networks.	7
Procurement	Define and apply the relationships of: Applications of law and ethics in procurement, and social responsibility	5
Procurement	Define and apply the relationships of: Basic supply management definitions, concepts, purposes, functions, processes, and goals	3
Procurement	Define and apply the relationships of: Best practices for assessing [procurement] performance using standard metrics and frameworks	3
Procurement	Define and apply the relationships of: Category analysis, supplier selection, contract negotiation, supplier relationship management, and performance evaluation	3
Procurement	Define and apply the relationships of: Day-to-day transactional and long-term strategic [procurement] activities	3
Procurement	Define and apply the relationships of: Linkages between procurement and other business functions	3
Procurement	Define and apply the relationships of: Principles and strategies for establishing efficient, effective, and sustainable operations, from sourcing teams to supplier rationalization	3
Procurement	Define and apply the relationships of: Requirements and challenges of global sourcing, including insource vs. outsource decisions; TCO analysis; risk management; negotiations, and supplier contract compliance	3
Procurement	Define and apply the relationships of: Technology for spend analysis, competitive bidding, eProcurement, eSourcing, auctions/reverse auctions, contract compliance, performance management, and more	1
Project Mgmt	Define the importance of planning, management, team building, and organization	5
Project Mgmt	Define what project management is all about and how to approach it successfully	6
Project Mgmt	Demonstrate the use of budgeting in project management, including cost and personnel budgeting	6
Project Mgmt	Describe the importance of estimating, guessing and milestones in project scheduling	6
Project Mgmt	Explain how leadership and communication affect project management	5
Project Mgmt	Explain how variables and risks should be approached when planning a project	6
Project Mgmt	Explain the selection of a project manager and defining the goals of the project	6
Project Mgmt	Understand the five process groups [in a project]: initiating, planning, executing, controlling, closing	6
Project Mgmt	Understand the nine project management knowledge areas: project, integration, scope, time, cost, quality, human resource, communications, risk, procurement management	6

Course	Course Learning Outcomes (CLOs)	Final PLO Placement
Transportation Mgmt	Define the critical role of technology in managing transportation operations and product flows, including the latest TMS tools for routing, scheduling, load planning, carrier selection, load tendering, status tracking, appointment scheduling, performance reporting, score-carding, and auditing.	1
Transportation Mgmt	Design principles and strategies for establishing efficient, effective, and sustainable transportation operations, including functional control, terms of sale, outsourcing, modal and carrier selection, rate negotiation, contracting, consolidation, 3PLs, sustainability, and overcoming barriers to success.	4
Transportation Mgmt	Identify best practices for assessing [transportation] performance using standard metrics and frameworks, including KPIs, tradeoff analysis, and more.	4
Transportation Mgmt	List key elements, processes, and interactions of transportation operations management, including transportation modes, execution, and control.	4
Transportation Mgmt	Observe and study business operations and then describe the logistics systems in oral and written presentations.	5
Transportation Mgmt	Understand basic international issues involved in transportation, including the requirements and challenges of planning and moving goods between countries, such as freight flows, intermodal options, planning/execution, ocean shipping and international air services; customs; global challenges, and regulation.	4
Transportation Mgmt	Understand basic terminology and transport operations in the context of today's business environment.	4
Transportation Mgmt	Understand how logistics management impacts society.	7
Warehousing & Inventory	Define inventory management and stock control, and explain using ABC analysis for conducting a physical and cycle inventory count.	2
Warehousing & Inventory	Describe how changes in the global and local supply chain impacts processes in warehousing operations, including reverse logistics.	2
Warehousing & Inventory	Describe the four main functions of a warehouse and the activities inside each function.	2
Warehousing & Inventory	Discuss how a warehouse can add value to a supply chain, including how to develop a balance between warehouse service level and the customers' needs, and implement quality control.	2
Warehousing & Inventory	Explain the characteristics of an ideal warehouse, including location, layout, information technologies, equipment, personnel management, and security procedures.	2
Warehousing & Inventory	Explain the meaning and the need for warehousing.	2
Warehousing & Inventory	Identify who is responsible for health and safety in a warehouse, and describe the safety measures that should be taken, including ergonomics, procedures, security, and physical arrangements.	2
Warehousing & Inventory	Identify, calculate, and explain the costs of a warehouse, including basic statistical measures for productivity, and determining when to outsource activities.	2
Warehousing & Inventory	Name and explain at least 4 government regulations that impact a warehouse.	2
70		

Core Competencies (adopted by ATU-Ozark Fall 2021)

1	Proficient and professional Written and Verbal Communication Skills
2	Effective Teamwork and Collaboration (includes negotiation, interpersonal skills, and conflict resolution)
3	Professionalism and Work Ethic – ethical behavior, showing up on time, appropriate dress, the way we speak.
4	Creative Problem Solving (being solution oriented, proactively seeking solutions for issues)
5	Execution/Project Management (confident to evaluate information AND make a decision)
6	Supervisory Skills and Leadership Development
7	Digital Literacy - the effective use of digital literacy tools/ resources (including data bases, spreadsheets, software systems, reporting)

These core competencies are being added to ATU-Ozark curriculum, Ozark High School curriculum, and encouraged by industry partners to develop employability skills for the workforce. Many of these align with the LGM PLO5 and PLO6.