



EM 640 Distribution Logistics

Fall 2024

Instructor: Art (Ismail) Yagci, PhD

 Online through the learning management system

Email: use canvas course site – Inbox (<https://canvas.njit.edu/>)

Office Hours: By Email (use canvas course site – Inbox)

COURSE DESCRIPTION

Over the past decades, the field of business logistics has evolved significantly, transitioning from its origins in warehouse operations and transportation to becoming a critical component in the boardrooms of leading global enterprises. Supply chain logistics management encompasses the development and foundational principles of the logistics discipline within a supply chain framework. Logistics involves all activities necessary for the movement of products and information to, from, and between members of a supply chain. Supply chain logistics management offers a structured approach for businesses and their suppliers to collaboratively deliver goods, services, and information in a manner that is efficient, effective, relevant, and sustainable for customers.

This course is structured around three primary objectives:

1. **To present** a comprehensive overview of current logistical practices within the global economy.
2. **To explore** strategies for applying logistics principles to secure a competitive advantage.
3. **To provide** a conceptual framework for integrating logistics as a core competency within an enterprise's supply chain strategy.

Additionally, students will gain hands-on experience with quantitative methodologies and analytical techniques that underpin operations and supply chain logistics strategy and planning. This will be achieved through the use of case studies and the development of analytical spreadsheet models for optimization challenges.

CANVAS LEARNING MANAGEMENT SYSTEM

All course activities will be conducted online using the Canvas learning management system. There are no mandatory in-person sessions; however, students are expected to adhere to a week-by-week schedule as detailed in the syllabus. The coursework is designed to be completed asynchronously, allowing students to progress through the material without needing to visit the campus.

The Canvas system will play a central role in facilitating communication between students and instructors. All course materials, including lecture slides and homework assignments, will be distributed through Canvas. Likewise, all submissions for homework and other assignments will be made via Canvas. To access the system, please visit the Canvas website and log in using your valid UCID.

GRADING

Based on individual performance as follows:

10% Homework #1

20% Midterm Exam

10% Homework #2

20% Final Exam

40% Weekly Quizzes (including text book, case studies in text book, and lecture slides)

This syllabus is designed to provide students with an outline of the topics and material that may be covered throughout the semester and will be adhered to as closely as possible. However, the professor retains the discretion to modify, supplement, or adjust the syllabus as necessary to meet the evolving needs of the course.

LECTURE SLIDES AND SUGGESTED READINGS

EM 640 Distribution Logistics lectures slides will be distributed electronically through Canvas.
Textbook: Contemporary Logistics, 12th edition Paul R. Murphy, Jr. and A. Michael Knemeyer

COURSE POLICY

Students are expected to:

- Stay current with the material covered each week.
- Complete weekly quizzes by the designated deadlines.
- Submit all homework, midterm, and final exams on time.

As your instructor, you can expect me to:

- Provide comprehensive learning materials in a timely manner each week.
- Respond to student emails every Wednesday and Friday.
- Design quizzes and exams that accurately reflect the stated learning objectives of the course.

Weeks	Date	Text book Chapters	Topics
Week 1	Sep 3-8, 2024	1 & 2	<u>Overview of Logistic</u> - What is logistic - Activities in logistic channel - Logistic and information technology -Case 1.1 KiddieLand and the Super Gym -Case 2.1 To Invest or not to Invest? That is the question -Weekly Quiz (Submit via Canvas before midnight).
Week 2	Sep 9-15, 2024	3 & 4	<u>Financial Logistic</u> -Strategic and financial logistic -Organizational and managerial issues in logistic -Case-3.1 Brant Freezer Company -Case- 4.1 Red Spot Markets Company -Weekly Quiz (Submit via Canvas before midnight).
Week 3	Sep 16- 22, 2024	5 & 6	<u>Supply Chain Management & Procurement</u> -Supply chain process framework -Barriers to SCM implementation -Supplier Selection and Evaluation -Case - 5.1 Johnson Toy Company -Case 6.1 Tempo Ltd -Weekly Quiz (Submit via Canvas before midnight).
Week 4	Sep 23-29, 2024	7	<u>Demand Management & Customer Service</u> -Demand management -Order management -Customer management -Case 7.1 Handy Andy Inc. -Weekly Quiz (Submit via Canvas before midnight) -Homework -1 (Submit via Canvas before midnight)
Week 5	Sep 30-Oct 6, 2024	8	<u>Inventory Management</u> -Inventory classification -Inventory cost -Inventory flows

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			<ul style="list-style-type: none"> -Inventory management -Case 8.1 Low Nail Company -Weekly Quiz (Submit via Canvas before midnight)
Week 6	Oct 7, 2024 (Time: 6:00 PM-7:00 PM EST)	NA	Midterm Exam (includes text book chapter 1-8, case 1-5, and lecture slides)
Week 7	Oct 14-20, 2024	Lecture class / slides	<u>Distribution & Logistics Solution Approaches</u> <ul style="list-style-type: none"> -Development of analytical spreadsheet model for optimization problems i.e., Linear Programing with excel solver
Week 8	Oct 21-27, 2024	9	<u>Facility Location</u> <ul style="list-style-type: none"> -Strategic importance of facility location -Factors influencing facility locations -Finding lowest cost location -Excel solution: Facility Location -Case 9.1 All-Indian Logistic Services -Weekly Quiz (Submit via Canvas before midnight).
Week 9	Oct 28–Nov 3, 2024	10	<u>Warehousing</u> <ul style="list-style-type: none"> -Role of WH in logistic -Design consideration in WH -WH productivity analysis -Case 10.1 Minnetonka Warehouse -Weekly Quiz (Submit via Canvas before midnight).
Week 10	Nov 4-10, 2024	11	<u>Packing and Handling</u> <ul style="list-style-type: none"> -Packing fundamentals -Issues in packing -Materials handling -Excel solution: Partial Loading (Knapsack Problem) -Case 11.1 Let There Be Light Lamp Shade Company -Weekly Quiz (Submit via Canvas before midnight).
Week 11	Nov 11-17, 2024	12	<u>Transportation</u> <ul style="list-style-type: none"> -Trans. Infrastructure -Trans. modes -Trans. Regulations -Intermodal trans. -Excel solution: Transportation problems -Case 12.1 HDT Truck Company -Weekly Quiz (Submit via Canvas before midnight) Homework -2 (Submit via Canvas before midnight)
Week 12	Nov 18-24, 2024	13	<u>Transportation Management</u> <ul style="list-style-type: none"> -Contemporary transportation management -Rate and pricing negotiation -Modal and carrier selection -Case 13.1 – Chippy Potato Chip Company -Weekly Quiz (Submit via Canvas before midnight).
Week 13	Dec 2-8, 2024	Lecture class / slides	<u>Distribution & Logistics Solution Approaches</u> <ul style="list-style-type: none"> -Development of analytical spreadsheet model for optimization problems i.e., how to solve Linear Programing for assignment problem, transshipment problem
Week 14	Dec 9-11, 2024	14	<u>Global logistic supply chain</u> <ul style="list-style-type: none"> -Macro environmental Influences on International logistic -Case 14.1 Nurnberg Augsburg Maschinenwerke (N.A.M.) -Weekly Quiz (Submit via Canvas before midnight).
Week 15	TBD (Time: 6:00 PM-7:00 PM EST)	NA	Final Exam (includes chapter 9-14, case 9-14, and lecture power points) (Check NJIT final Exam Dates for latest update)

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