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**EM 640 Distribution Logistics**

Fall 2025

Instructor: Art (Ismail) Yagci, PhD

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Online through the learning management system

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

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

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**COURSE DESCRIPTION**

Over the past several decades, the field of business logistics has experienced significant evolution. What once centered on warehouse management and transportation now stands as a vital element of strategic decision-making within leading global enterprises. Supply chain logistics management involves applying logistics principles within the broader context of supply chain operations. Fundamentally, logistics encompasses all activities necessary to move products and information to, from, and among supply chain partners.

This discipline provides businesses and their suppliers with a systematic approach to collaboratively delivering goods, services, and information efficiently, effectively, and sustainably to meet customer needs.

**The course focuses on three key objectives:**

- Offering a comprehensive overview of modern logistical practices in the global economy.
- Examining strategies to leverage logistics for competitive advantage.
- Establishing a conceptual framework for integrating logistics as a core component of supply chain strategy.

Students will also gain practical experience in quantitative methods and analytical techniques essential for supply chain logistics strategy and planning. These skills will be reinforced through case studies and the development of spreadsheet-based analytical models designed to solve optimization problems.

**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

### Student Responsibilities:

- Keep up with the weekly course material.
- Complete all weekly quizzes by the specified deadlines.
- Submit homework assignments, as well as midterm and final exams, on time.

### Instructor Commitments:

- Provide complete and timely learning materials each week.
- Respond to student emails on Wednesdays and Fridays.
- Develop quizzes and exams that align closely with the course's stated learning objectives.

Weeks	Date	Text book Chapters	Topics
Week 1	Sep 2-7, 2025	1 & 2	<b><u>Overview of Logistic</u></b> - 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 <b><u>-Weekly Quiz (Submit via Canvas before midnight).</u></b>
Week 2	Sep 8-14, 2025	3 & 4	<b><u>Financial Logistic</u></b> -Strategic and financial logistic -Organizational and managerial issues in logistic -Case-3.1 Brant Freezer Company -Case- 4.1 Red Spot Markets Company <b><u>-Weekly Quiz (Submit via Canvas before midnight).</u></b>
Week 3	Sep 15-21, 2025	5 & 6	<b><u>Supply Chain Management &amp; Procurement</u></b> -Supply chain process framework -Barriers to SCM implementation -Supplier Selection and Evaluation -Case - 5.1 Johnson Toy Company -Case 6.1 Tempo Ltd <b><u>-Weekly Quiz (Submit via Canvas before midnight).</u></b>
Week 4	Sep 22-28, 2025	7	<b><u>Demand Management &amp; Customer Service</u></b> -Demand management -Order management -Customer management -Case 7.1 Handy Andy Inc. <b><u>-Weekly Quiz (Submit via Canvas before midnight)</u></b> <b><u>-Homework -1 (Submit via Canvas before midnight)</u></b>
Week 5	Sep 29 – Oct 5, 2025	8	<b><u>Inventory Management</u></b> -Inventory classification -Inventory cost

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			<ul style="list-style-type: none"> <li>-Inventory flows</li> <li>-Inventory management</li> <li>-Case 8.1 Low Nail Company</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight)</b></li> </ul>
Week 6	Oct 6-12, 2025	Lecture class slides /	<p><b><u>Distribution &amp; Logistics Solution Approaches</u></b></p> <ul style="list-style-type: none"> <li>-Development of analytical spreadsheet model for optimization problems i.e., Linear Programming with excel solver</li> </ul>
Week 7	Oct 17, 2025 <b>(Time: 7:00 PM-8:00 PM EST)</b>		Midterm Exam (includes chapter 1-8, case 1-8, and lecture power points)
Week 8	Oct 20-26, 2025	9	<p><b><u>Facility Location</u></b></p> <ul style="list-style-type: none"> <li>-Strategic importance of facility location</li> <li>-Factors influencing facility locations</li> <li>-Finding lowest cost location</li> <li>-Excel solution: Facility Location</li> <li>-Case 9.1 All-Indian Logistic Services</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight).</b></li> </ul>
Week 9	Oct 27- Nov 2, 2025	10	<p><b><u>Warehousing</u></b></p> <ul style="list-style-type: none"> <li>-Role of WH in logistic</li> <li>-Design consideration in WH</li> <li>-WH productivity analysis</li> <li>-Case 10.1 Minnetonka Warehouse</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight).</b></li> </ul>
Week 10	Nov 3-9, 2025	11	<p><b><u>Packing and Handling</u></b></p> <ul style="list-style-type: none"> <li>-Packing fundamentals</li> <li>-Issues in packing</li> <li>-Materials handling</li> <li>-Excel solution: Partial Loading (Knapsack Problem)</li> <li>-Case 11.1 Let There Be Light Lamp Shade Company</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight).</b></li> </ul>
Week 11	Nov 10-16, 2025	12	<p><b><u>Transportation</u></b></p> <ul style="list-style-type: none"> <li>-Trans. Infrastructure</li> <li>-Trans. modes</li> <li>-Trans. Regulations</li> <li>-Intermodal trans.</li> <li>-Excel solution: Transportation problems</li> <li>-Case 12.1 HDT Truck Company</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight)</b></li> <li><b>-Homework -2 (Submit via Canvas before midnight)</b></li> </ul>
Week 12	Nov 17-23, 2025	13	<p><b><u>Transportation Management</u></b></p> <ul style="list-style-type: none"> <li>-Contemporary transportation management</li> <li>-Rate and pricing negotiation</li> <li>-Modal and carrier selection</li> <li>-Case 13.1 – Chippy Potato Chip Company</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight).</b></li> </ul>
Week 13	Dec 1-7, 2025	Lecture class slides /	<p><b><u>Distribution &amp; Logistics Solution Approaches</u></b></p> <ul style="list-style-type: none"> <li>-Development of analytical spreadsheet model for optimization problems i.e., how to solve Linear Programming for assignment problem, transhipment problem</li> </ul>
Week 14	Dec 8-11, 2025	14	<p><b><u>Global logistic supply chain</u></b></p> <ul style="list-style-type: none"> <li>-Macro environmental Influences on International logistic</li> <li>-Case 14.1 Nurnberg Augsburg Maschinenwerke (N.A.M.)</li> <li><b>-Weekly Quiz (Submit via Canvas before midnight).</b></li> </ul>
Week 15	Dec 12, 2025 <b>(Time: 7:00 PM-8:00 PM EST)</b>		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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