

Fall 2019

# EM 640-851: Distribution Logistics

Art Ismail Yagci

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## **EM 640 Distribution Logistics**

Fall 2019

Instructor: Art (Ismail) Yagci, PhD

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Online through the learning management system

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### **COURSE DESCRIPTION**

Over decades, the discipline of business logistics has advanced from the warehouse floor and transportation dock to the boardroom of leading global enterprises. Supply chain logistics management encompasses the development and fundamental of the logistic discipline within a supply chain structure. Logistics includes all the activities required to move product and information to, from and between members of a supply chain. The supply chain logistics management provides the framework for businesses and their suppliers to jointly deliver goods, services, and information efficiently, effectively, relevantly and in a sustainable manner to customers.

This course focuses on three fundamental objectives: 1) presents a comprehensive description of existing logistical practices in a global economy, 2) describes ways and means to apply logistics principles to achieve competitive advantage, 3) provide a conceptual approach for integrating logistics as a core competency within enterprise supply chain strategy.

Moreover students will gain exposure to quantitative methodologies and analysis that support operations and supply chain logistics strategy and planning decisions, using case studies and development of analytical spreadsheet models.

### **MOODLE**

The course activity will be completed online through the learning management system. There are no required face-to-face sessions but students are expected to follow a week-by-week schedule as outlined in the syllabus. Work is typically done in an asynchronous mode and students can complete the coursework without coming to campus.

The course will make extensive use of the Moodle system to optimize student-instructor communication. All course materials including lecture slides and homework etc. will be distributed through Moodle. All submission of homework and other assignments will also be through Moodle. To access the system please go to <http://moodle.njit.edu>, you will need a valid UCID to login.

This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the professor reserves the right to modify, supplement and make changes as the course needs arise.

## GRADING

Based in individual and team performance as follows:

10% Homework #1                      25% Midterm Exam

10% Homework #2                      25% Final Exam

30% Weekly Quiz (including case study, text book, and class presentation)

## LECTURE SLIDES AND SUGGESTED READINGS

EM 640 Distribution Logistics lectures slides will be distributed electronically through Moodle.

Textbook: Contemporary Logistics, 11th edition Paul R. Murphy, Jr. and A. Michael Knemeyer

## COURSE POLICY

Expectations of students: I expect you to

- keep up with the material covered every week
- complete your quizzes on time every week
- complete your homework, midterm and final exam on time

Expectations of the instructor: You can expect me to

- provide comprehensive learning material on time every week
- respond to student emails on every Sunday
- create quizzes and exams that reflect the stated learning expectations for the course

Weeks	Date	Chapters	Topics
Week 1	Sep 3-8, 2019	1 & 2	<b><u>Overview of Logistic</u></b> - What is logistic - Activities in logistic channel - Logistic and information technology -Case 2.1 Just-in-Time in Kalamazoo <b>-Quiz (Submit via Moodle before week's end). E.g., before midnight of Sep 8, 2019</b>
Week 2	Sep 9-15, 2019	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>--Quiz (Submit via Moodle before week's end)</b>
Week 3	Sep 16-22, 2019	5 & 6	<b><u>Supply Chain Management &amp; Procurement</u></b> -Supply chain process framework

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			<ul style="list-style-type: none"> <li>-Barriers to SCM implementation</li> <li>-Supplier Selection and Evaluation</li> <li>-Homework -1 (make available to the students)</li> <li>-Case - 5.1 Johnson Toy Company</li> <li>-Case 6.1 Tempo Ltd</li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 4	Sep 23-29, 2019	7	<p><b><u>Demand Management &amp; Customer Service</u></b></p> <ul style="list-style-type: none"> <li>-Demand management</li> <li>-Order management</li> <li>-Customer management</li> <li>-Case 7.1 Handy Andy Inc.</li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 5	Sep 30- Oct 6, 2019	8	<p><b><u>Inventory Management</u></b></p> <ul style="list-style-type: none"> <li>-Inventory classification</li> <li>-Inventory cost</li> <li>-Inventory flows</li> <li>-Inventory management</li> <li>-Case 8.1 Low Nail Company</li> <li><b>-Homework -1 (Submit via Moodle before week's end)</b></li> <li><b>--Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 6	Oct 11, 2019 (Time: 6:00 PM-7:30 PM EST)	NA	Midterm Exam (includes chapter 1-8, case 1-8, lecture power points)
Week 7	Oct 14-20, 2019	NA	<p><b><u>Distribution Logistic Solution Approaches</u></b></p> <ul style="list-style-type: none"> <li>-Introduction Linear Programing with excel</li> </ul>
Week 8	Oct 21-27, 2019	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>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 9	Oct 28 – Nov 3, 2019	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>-Homework -2 (make available to the students)</li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 10	Nov 4-10, 2019	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</li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 11	Nov 11-17, 2019	12	<p><b><u>Transportation</u></b></p> <ul style="list-style-type: none"> <li>-Trans. Infrastructure</li> <li>-Trans. modes</li> </ul>

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			<ul style="list-style-type: none"> <li>-Trans. Regulations</li> <li>-Intermodal trans.</li> <li>-Excel solution: Transportation problems</li> <li>-Case 12.1 Truck Company</li> <li><b>-Homework -2 (Submit via Moodle before week's end)</b></li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 12	Nov 18-24, 2019	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>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 13	Dec 2-8, 2019	NA	<p><b><u>Logistic Solutions Approach</u></b></p> <ul style="list-style-type: none"> <li>-Linear Programming with excel: Assignment problem, Transshipment problem</li> </ul>
Week 14	Dec 9-11, 2019	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</li> <li><b>-Quiz (Submit via Moodle before week's end)</b></li> </ul>
Week 15	Date-TBD (Time: 6:00 PM-7:30 PM EST)	NA	Final Exam (includes chapter 9-14, case 9-14, and lecture power points) (Check NJIT final Exam Dates)

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