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EM 640-102: Distribution Logistics

Ismail Yagci

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EM 640 Distribution Logistics

Spring 2021

Instructor: Art (Ismail) Yagci, PhD

Synchronous Online Course - live virtual classroom URL <https://njit.webex.com/meet/iaiy2>

6:00 pm - 8:50 pm Tuesday | Office hours: Tuesday's (after class time)

Email: iaiy2@njit.edu

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 model for optimization problems.

CANVAS LEARNING MANAGEMENT SYSTEM & WebEx

The course activity will be completed **Synchronous Online** through the Canvas learning management system and NJIT WebEx.

Synchronous Online: delivery of instruction takes place during the day and time noted, independent of location. All course activity can be completed online through the learning management system. There are no face-to-face sessions, but remote attendance is expected.

The course will make extensive use of the Canvas system to optimize student-instructor communication. All course materials including lecture slides and homework etc. will be distributed through Canvas. All submission of homework and other assignments will also be through Canvas. To access the system please go to <https://canvas.njit.edu> , you will need a valid UCID to login. To join live virtual classroom please go to <https://njit.webex.com/meet/iaiy2>

GRADING

Based on individual performance as follows:

10% Homework #1	25% Midterm Exam
10% Homework #2	25% Final Exam
20% Case Study Project	10% Class Discussion/Participation/Attendance

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.

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

CASE STUDY TEAM PROJECT

The case study project will be completed in teams of two, three or four students. Each team will be assigned a unique case study. The team is required to review and discuss the assigned case and create a detailed PowerPoint report which focuses on given team tasks. Each team will make a 30-minute presentation to the class on their case. Presentations will be scheduled for each team on the scheduled dates and will be announced and have to be submitted through Canvas. It is good if you can have company corporate type (private/public), brief background, structure, size (capitalization, employee), and scope of products in your presentation.

COURSE POLICY

Expectations of students: I expect you to

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

Expectations of the instructor: You can expect me to

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

Weeks	Date	Text book Chapters	Topics
Week 1	Jan 19, 2021	1 & 2	Overview of Logistic - What is logistic - Activities in logistic channel - Logistic and information technology
Week 2	Jan 26, 2021	3 & 4	Financial Logistic -Strategic and financial logistic -Organizational and managerial issues in logistic -Case 2.1 To Invest or not to Invest? That is the question
Week 3	Feb 2, 2021	5 & 6	Supply Chain Management & Procurement -Supply chain process framework -Barriers to SCM implementation -Supplier Selection and Evaluation -Homework -1 (make available to the students) -Case-3.1 Brant Freezer Company
Week 4	Feb 9, 2021	7	Demand Management & Customer Service -Demand management -Order management -Customer management -Case- 4.1 Red Spot Markets Company
Week 5	Feb 16, 2021	8	Inventory Management

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			<ul style="list-style-type: none"> -Inventory classification -Inventory cost -Inventory flows -Inventory management -Homework -1 (Submit via Canvas before 6 pm) -Case - 5.1 Johnson Toy Company
Week 6	Feb 23, 2021	NA	Midterm Exam (includes text book chapter 1-8, case 1-5, and lecture slides)
Week 7	March 2, 2021	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 Programming with excel solver -Case 6.1 Tempo Ltd
Week 8	March 9, 2021	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 7.1 Handy Andy Inc.
Week 9	March 23, 2021	10	<u>Warehousing</u> <ul style="list-style-type: none"> -Role of WH in logistic -Design consideration in WH -WH productivity analysis -Case 8.1 Low Nail Company -Homework -2 (make available to the students)
Week 10	March 30, 2021	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 9.1 All-Indian Logistic Services
Week 11	April 6, 2021	12	<u>Transportation</u> <ul style="list-style-type: none"> -Trans. Infrastructure -Trans. modes -Trans. Regulations -Intermodal trans. -Excel solution: Transportation problems -Case 10.1 Minnetonka Warehouse -Homework -2 (Submit via Canvas before 6 pm)
Week 12	April 13, 2021	13	<u>Transportation Management</u> <ul style="list-style-type: none"> -Contemporary transportation management -Rate and pricing negotiation -Modal and carrier selection -Case 11.1 Let There Be Light Lamp Shade Company
Week 13	April 20, 2021	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 Programming for assignment problem, transshipment problem

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			-Case 12.1 HDT Truck Company -Case 13.1 – Chippy Potato Chip Company
Week 14	April 27, 2021	14	Global logistic supply chain -Macro environmental Influences on International logistic -Case 14.1 Nurnberg Augsburg Maschinenwerke (N.A.M.)
Week 15	May 7 - 13, 2021	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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