

## **MODELS FOR SUPPLY CHAIN MANAGEMENT**

**ESI6323** Section: 1FE2/2FED/CAMP/OVER

**Class Periods:** M | Period 7(1:55 PM - 2:45 PM); F | Period 7 – 8 (1:55 PM - 3:50 PM)

**Location:** M | WEIL 0279; F | FLG 0260

**Academic Term:** Spring 2024

### ***Instructor:***

Dr. Mengyu Li

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(352)-294-6391

Office location: 379 Weil Hall

Office Hours: Mondays, 3 - 4 pm (in person or via Canvas Zoom Conferences)

### ***Teaching Assistant/Grader:***

Marie Harriott

[mharriott@ufl.edu](mailto:mharriott@ufl.edu)

Office Hours: Wednesdays, 12:50 – 2:50 pm (via Canvas Zoom Conferences)

### ***Course Description***

This course covers essential elements of supply chain design and operation, which consists of controlling and coordinating activities such as order processing, purchasing, material storage and handling, production planning, packaging, transportation and setting customer standards. We will learn how these activities are effectively modeled, planned, and controlled in the manufacturing and service industries. The decisions and strategies regarding inventory and transportation, which are the most important parts of business logistics for a firm, are highlighted. During the course, we will discuss many case studies of manufacturing and service firms in the United States and abroad with a focus on their supply chain design and operation activities.

### ***Course Objectives***

This course is intended to provide students with:

- an understanding of key supply chain concepts,
- an appreciation of the need to take a comprehensive view of decisions for supply chain design and operation,
- an ability to model and optimize the design and operation of supply chain systems, and
- an opportunity to develop their critical and creative thinking skills by applying supply chain concepts to real-world applications.

### ***Materials and Supply Fees***

N/A

### ***Required Textbooks and Software***

- Required Textbooks: None
- Required Software: You must have access to Excel (for some activities and homework assignments) and Honorlock online proctoring services (for online exams). A detailed Honorlock program guideline can be found in the course Canvas site.

### ***Recommended Materials***

- Title: Supply Chain Management: Strategy, Planning, and Operation.
- Author: Sunil Chopra.
- Publication date and edition: 7<sup>th</sup> Edition. Boston: Pearson Education, 2017.
- ISBN number: 9780134731889

### ***Course Schedule\****

\*This is a tentative outline, and the instructor reserves the right to make changes as she deems necessary.

Week	Date (Mon - Fri)	Topic
1	Jan 8 - 12	Course Introduction Chapter 1. Understanding the Supply Chain
2	Jan 15 - 19 (Jan 15 holiday)	Chapter 2. Supply Chain Performance: Achieving Strategic Fit and Scope <i>* In-class Activity - Discussion: Strategic Fit</i>
3	Jan 22 - 26	Chapter 3. Supply Chain Drivers and Metrics Chapter 4. Designing Distribution Networks and Applications to Online Sales <i>* In-class Activity - Discussion: Omni Channel</i>
4	Jan 29 - Feb 2	Chapter 4. Designing Distribution Networks and Applications to Online Sales (Cont.) Chapter 5. Network Design in the Supply Chain <i>* In-class Activity - Discussion: Distribution Network</i> <i>* Online Discussion 1 - Movie Rental Case Study</i>
5	Feb 5 - 9	Chapter 5. Network Design in the Supply Chain (cont.) Chapter 6. Designing Global Supply Chain Networks <i>* In-class Activity - Tutorial: Chapter 5</i> <i>* Homework 1 (Chap. 5 &amp; 6)</i>
6	Feb 12 - 16	Chapter 6. Designing Global Supply Chain Networks (cont.) Chapter 7. Demand Forecasting in a Supply Chain <i>* In-class Activity - Tutorial: Chapter 6</i>
7	Feb 19 - 23	Chapter 7. Demand Forecasting in a Supply Chain (cont.) Chapter 8. Aggregate Planning in a Supply Chain <i>* Homework 2 (Chap. 7)</i>
8	Feb 26 - Mar 1	Chapter 8. Aggregate Planning in a Supply Chain (cont.) Review for Midterm <i>* In-class Activity - Tutorial: Chapter 8</i> <b>* Midterm Exam</b>
<b>Spring break</b>		
9	Mar 11 - 15	Chapter 9. Sales and Operations Planning in a Supply Chain <i>* In-class Activity - Tutorial: Chapter 9</i> <i>* Homework 3 (Chap. 8 &amp; 9)</i>
10	Mar 18 - 22	Chapter 10. Coordination in a Supply Chain Midterm Exam Review <i>* In-class Activity - Group Study: Chapter 10</i> <i>* Online Discussion 2 - Coordination in a Supply Chain</i>
11	Mar 25 - 29	Chapter 11. Managing Cycle Inventory in a Supply Chain <i>* Homework 4 (Chap. 11)</i>
12	Apr 1 - 5	Chapter 12. Managing Uncertainty in a Supply Chain <i>* Online Discussion 3 - Manage Uncertainty</i>
13	Apr 8 - 12	Chapter 13. Linking Product Availability to Profits <i>* Homework 5 (Chap. 12)</i>
14	Apr 15 - 19	Chapter 14. Transportation in a Supply Chain <i>* Homework 6 (Chap. 13)</i> <i>* Online Discussion 4 - Product Availability</i>
15	Apr 22 - 26 (Apr 25, 26 reading days)	Review for Final Exam <i>* In-class Activity - Tutorial: Chapter 14</i>
	<b>Final Exam</b>	<b>5/01/2024 @ 10:00 AM - 12:00 PM</b>

### **Attendance Policy, Class Expectations, and Make-Up Policy**

- This course is offered through the UF EDGE program. All lectures will be recorded and made available to all students (EDGE and on-campus). Attendance and participation are highly valued in this course. Attendance is not required but will be considered in the calculation of the student's final grade. The instructor reserves the right to issue a failing grade for lack of attendance/participation.
- Attendance is required exams online via Canvas Honorlock online proctoring services. Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx> Only University excused absences will be allowed for exam make-ups.

- Class Expectation: Stay ahead of the game! Each week has a lot of materials to cover. It can be made easier if you start on time and stay on schedule. You can find the detailed course schedules in the previous table.
- Late Assignment Policy: The assignments are to be submitted on or before the posted due date. Students are responsible for all material presented in each session. Late submission penalty of 25% per day (4 days maximum allowance) will be applied to late submissions. If the grades have been released/assignments have been evaluated, your assignment is excessively late, a zero will be given. **It is your responsibility to visit the course website regularly, read the posted announcements and be aware of assignment submission deadlines and procedures.**

### Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Homework Assignments (6)	100 each	30% (5% each, 6 in total)
Online Activities (4)	10 each	12% (3% each, 4 in total)
Midterm Exam	100	28%
Final Exam	100	30%
		<b>100%</b>

**Homework Assignments.** Homework assignments are selected from the Exercises included at the end of the chapters from the textbook. Consider the following for homework submissions:

- A response to a question is expected to provide an explanation of any model and/or methodological approach utilized, and to clearly identify the solutions. An explanation of a model requires defining all decision variables, parameters, constraints, and the objective function. Any additional Excel® sheets should be included as an appendix.
- As far as the homework grading is concerned, the important thing is to formulate a correct model. Therefore, you should make sure that your model is properly formulated and documented so that a grader can easily interpret it and determine whether it is a correct formulation.
- You should submit your homework on Canvas by 11:59 pm on the due date. The file(s) should be named as “*LASTNAME\_FIRSTNAME\_ESI6323\_HW#*”. Pages should be ready to print (you may check this using the Print Preview option). Your name should be on the header of each page.
- Any submitted homework assignments that are identical (or nearly so), either to each other or to a solution key will receive a credit of zero.

**Online Activities.** Online Activities are delivered via course Canvas site with a format of Online Discussions or Quizzes. Students will be given 7 days (1 week) to participate from the date that the online activities are posted. This also encourages you to visit the course website and watch lecture videos on a regular basis.

### Grading Policy

Percent	Grade	Grade Points
93.0 – 100.0	A	4.00
90.0 – 92.9	A-	3.67
87.0 – 89.9	B+	3.33
83.0 – 86.9	B	3.00
80.0 – 82.9	B-	2.67
77.0 - 79.9	C+	2.33
73.0 – 76.9	C	2.00
70.0 – 72.9	C-	1.67
67.0 – 69.9	D+	1.33
63.0 – 66.9	D	1.00
60.0 – 62.9	D-	0.67
0 – 59.9	E	0.00

More information on UF grading policy may be found at:  
<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>  
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### ***Students Requiring Accommodations***

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### ***Course Evaluation***

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at [gatorevals.ua.ufl.edu/students/](http://gatorevals.ua.ufl.edu/students/). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via [ufl.bluera.com/ufl/](http://ufl.bluera.com/ufl/). Summaries of course evaluation results are available to students at [gatorevals.ua.ufl.edu/public-results/](http://gatorevals.ua.ufl.edu/public-results/).

### ***University Honesty Policy***

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### ***Software Use***

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

### ***Student Privacy***

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

### ***Campus Resources:***

#### **Health and Wellness**

##### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**Counseling and Wellness Center:** <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

##### **Sexual Assault Recovery Services (SARS)**

Student Health Care Center, 392-1161.

**University Police Department** at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

## Academic Resources

**E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.  
<https://lss.at.ufl.edu/help.shtml>.

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

**Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.  
<https://teachingcenter.ufl.edu/>.

**Writing Studio, 302 Tigert Hall**, 846-1138. Help brainstorming, formatting, and writing papers.  
<https://writing.ufl.edu/writing-studio/>.

**Student Complaints Campus**: [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf).

**On-Line Students Complaints**: <http://www.distance.ufl.edu/student-complaint-process>.

### ***Disclaimer***

The instructor reserves the right, when necessary, to alter the grading policy, change examination dates, and modify the syllabus and course content. Modifications will be announced on the course website. Students are responsible for announced changes.