

ESI6323 MODELS FOR SUPPLY CHAIN MANAGEMENT Summer 2018

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 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.

Course Instructor. Prof. Elif Akçali. akcali@ufl.edu. 352.294.7726. <http://www.ise.ufl.edu/akcali>. Office Hours Wednesdays 6:30-8:30pm.

Teaching Assistant. Roshanak (Roshi) Mohammadivojdan, rmohammadivojdan@ufl.edu. Tobias Lodemann, leibniz93@ufl.edu Office Hours TBD.

Classroom Meetings. The class will meet five times throughout the semester in Lake Nona Facility.

Textbook. Sunil Chopra and Peter Meindl. *Supply Chain Management: Strategy, Planning, and Operation*. 6th Edition. Prentice Hall. 2016.

Course Tools. You must have access to Excel (for some in-class exercises and homework assignments) and a calculator (for the exams).

Course Assessment. Your final grade for the class will be calculated based on homework assignments, in-class activities, a midterm exam and a final exam:

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| • Homework Assignments | 18% (3% each of 6 out of 7) |
| • Midterm Exam | 30% |
| • In-Class Activities | 12% (2% each of 6) |
| • Final Exam | 40% |

Final grade averages will be rounded off to the nearest integer, and assigned on the standard scale as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
100-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-0

Detailed Course Outline. This is a tentative outline and the instructor reserves the right to make changes as she deems necessary.

Month	Date	Topic
April	Sunday 4/22	<i>In-Class Activity 1</i> CM1. Understanding the Supply Chain CM2. Supply Chain Performance: Achieving Strategic Fit and Scope CM3. Supply Chain Drivers and Metrics
May	Saturday 5/12	<i>In-Class Activity 2</i> CM4. Designing Distribution Networks and Applications to Online Sales CM5. Network Design in the Supply Chain CM6. Designing Global Supply Chain Networks
	Sunday 5/13	<i>In-Class Activity 3</i> CM7. Demand Forecasting in a Supply Chain CM8. Aggregate Planning in a Supply Chain
June	Saturday 6/9	<i>Midterm Exam</i> CM9. Planning Supply and Demand in a Supply Chain
	Sunday 6/10	<i>In-Class Activity 4</i> CM10. Coordination in a Supply Chain CM11. Managing Inventory in a Supply Chain
July	Saturday 7/14	<i>In-Class Activity 5</i> CM12. Managing Uncertainty in a Supply Chain CM13. Determining the Optimal Level of Product Availability
	Sunday 7/15	<i>In-Class Activity 6</i> CM14. Transportation in a Supply Chain CM15. Sourcing Decisions in a Supply Chain
August	Saturday 8/4	<i>Final Exam</i> CM16. Pricing and Revenue Management in a Supply Chain

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

Week	Date (Mon – Sun)	Activity
1	April 16 – April 22	April 22: Sunday AM: Lecture.
2	April 24 – April 29	
3	April 30 – May 6	May 3: Wednesday 11:59pm: Homework 1.
4	May 7 – May 13	May 12: Saturday AM: Lecture. May 13: Sunday AM: Lecture.
5	May 14 – May 20	
6	May 21 – May 27	May 23: Wednesday 11:59pm: Homework 2.
7	May 28 – June 3	
8	June 4 – June 10	June 6: Wednesday 11:59pm: Homework 3. June 9: Saturday AM: Exam. June 10: Sunday AM: Lecture.
9	June 11 – June 17	
10	June 18 – June 24	June 20: Wednesday 11:59pm: Homework 4.
11	June 25 – July 1	
12	July 2 – July 8	
13	July 9 – July 15	July 11: Wednesday 11:59pm: Homework 5. July 14: Saturday AM: Lecture. July 15: Sunday AM: Lecture.
14	July 16 – July 22	
15	July 23 – July 29	July 25: Wednesday 11:59pm: Homework 6.
16	July 30 – August 4	August 1: Wednesday 11:59pm: Homework 7. August 4: Saturday AM: Final Exam.

Homework Assignments. Homework assignments are selected from the Discussion Questions (DQ) and Exercises (E) included at the end of the chapters from the textbook. Consider the following for homework submissions:

- A response to a DQ is expected to be a succinct and clear paragraph of about 4-6 sentences.
- A response to an E 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 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 may not get Excel Solver® to work right. Please consult the “LP_Examples.xls” spreadsheet on the course site, which has formulation tips and troubleshooting steps for the Excel Solver®.
- You should submit your homework on Canvas by 11:59pm on the due date. The file(s) should be named as LASTNAME_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.

In-Class Activities. In-Class Activities are to be completed by the students during the corresponding class meeting and are to be submitted before the end of the class meeting.

Academic Honesty. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." you are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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.*" You are not allowed to refer to any course material from previous years or resources that are available on the web for the homework assignments. You are not allowed to use any material that is not permitted explicitly by the instructor during the quizzes or the final exam.

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, quizzes, final exam). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

Campus Helping Resources. Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. University Counseling & Wellness Center. 3190 Radio Road, 352-392-1575. www.counseling.ufl.edu/cwc/. Career Resource Center. First Floor JWRU, 392-1601, www.crc.ufl.edu.

Students with Disabilities. The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Dean of Students Office. 0001 Reid Hall, 352-392-8565. www.dso.ufl.edu/drc/