



**Daniel J. Epstein Department of Industrial and Systems Engineering
University of Southern California**

Course Syllabus
ISE 335L – Supply Chain Design

INSTRUCTOR

Amir Gharehgozli, Ph.D.

MEETING TIME AND PLACE

TuTh 8:00AM - 9:20AM

GFS 207

INSTRUCTOR INFORMATION

Office Location GER 242A

Office Hours and Thursdays 6:00PM - 7:00PM (or by appointment)

location Via Zoom or in person by appointment

Web information Course materials and supplementary handouts are available on Blackboard.

Contact students The instructor will use Blackboard as the primary means of contacting you. Please check the announcements frequently.

Email Please use Blackboard to send me an email (during the first session, we will discuss where we can find it on Blackboard and how we can work with it.)

DISCLAIMER

This syllabus, course schedule, and the contents of course web site are subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements made while you were absent. If you have any questions about the material contained in this syllabus, please contact me. Your continued enrollment in the course evidences your agreement to the policies contained herein.

TEXTBOOK

The following textbook is the main textbook for this course. Extra materials may be provided for every session.

Course Text	Sunil Chopra, Supply Chain Management: Strategy, Planning, and Operation, 7th ed. Only the textbook; no access code, online tool, etc. is required. You can buy the other editions of the book as well. However, I will refer to the 7 th edition for the page, section, and question numbers. So, if you buy another edition of the book, you need to double-check those numbers with your classmates who have the 7 th edition.
Other Materials	Required readings for each session will be provided online.

COURSE DESCRIPTION

Supply chain management has emerged as one of the major areas for companies to gain a competitive edge. Managing supply chains is a complex and challenging task, given the current business trends of expanding product variety, short product life cycles, increasing outsourcing, globalization of business, and continuous advances in information technology. What is more, supply chain management, as a natural successor to operations management, is a fundamental driver not only to further improving operations but also to strengthening the competitive position of a company. The enormous progress in information technology, including the Internet, has contributed to both the increasing needs and opportunities for improved supply chain management. Companies moving into new markets or new technologies must have their supply chains prepared for the new business challenges and opportunities.

The goal of this course is to familiarize students with the discipline of supply chain management, which enables firms to better coordinate inbound and outbound information and material flows, and perform customer service activities relevant to logistics, operations, and marketing processes that occur along a supply chain.

COURSE OBJECTIVES

The course will introduce you to concepts and techniques related to the design, planning and control and improvement of supply chains and supply chain operations. More specifically, the course attempts to

- make you conversant in the language of supply chain management and expand your confidence in this area,
- allow you to see the role of supply chain management in the overall strategy and performance of the firm by providing a conceptual, strategic view of supply chain design and operations,
- analyze the underlying issues and trade-offs between the sourcing of raw materials, the manufacturing, storage, and transportation of products and the services required to fulfil customer expectations and the metrics of the firm,
- Provide you with quantitative and qualitative tools to identify, analyze and manage supply chain operations and issues.

At the end of the course, you should have gained an improved understanding of

- how supply chain strategy can be aligned with business strategy,
- the dynamic challenges in supply chain management,
- the competitive potential of superior supply chain management,

and acquired the skills to

- analyze supply chains and supply chain operations to identify problems and improvement opportunities,
- recommend and initiate supply chain improvement actions and projects.

TEACHING STRATEGIES

My philosophy for the learning environment is the role of the professor as director of learning among equals. I try to instill in students that they must be their own teachers gathering and discarding the appropriate skill sets for lifelong learning, success, and service to society. Therefore, Teaching/Learning Activities can be summarized as follows:

- Instructor
 - Instruct students on which resources to use in order to learn a topic.
 - Provide insights through PowerPoints/discussion board explanations/videos for specific and difficult to grasp topics.
 - Meet with students with appointments to review questions.
 - Review and grade and projects returning detailed comments.
- Students
 - Read books and papers assigned in a timely fashion.
 - Do the assignments in a timely fashion.
 - Write critically analyzed paper using concepts and terms learned

PREREQUISITS

ISE 330 and ISE 460

In general, the study of Supply Chain Management requires knowledge and understanding of quantitative tools and techniques which should have been gained through the prerequisite courses. Examples of such tools and techniques are linear algebra of cost and revenue functions, systems of linear equations, estimation of mean and standard deviation, time series analysis, probability and sampling distributions, confidence interval estimates, etc.

Blackboard

Blackboard is USC's primary Learning Management Software and used for communications, course material and lessons. Check the site daily. Make use of the online environment and its collaborative features (discussion/bulletin board, course email, etc.) to work with your classmates virtually. Check the course website and your campus email address daily.

Make sure you are able to navigate Blackboard. A brief introduction to Blackboard will be given during the first session. More info can be found at <https://blackboard.usc.edu/>. Should you experience a technical computer problem, contact the IT Help Center.

...Keep in mind that we will be relying heavily on technology for many of the assignments and exams. There is always the chance that your internet will be momentarily down when accessing course materials, assignments or exams. Please make sure you are giving yourself enough time to review the course materials and complete the assignments for the course to minimize any unforeseen challenges. I strongly encourage you to not wait until the last minute before the deadlines to complete the assignments. I have tried to give you a flexible window to complete the assignments from when they post to when they are due (which will be listed online). For the exams, I am always available to address any technical issues immediately.

COURSE ASSESSMENTS

Students will be evaluated in the following manner. The instructor reserves the right to change course requirements and grading to optimize the student learning experience. Students will be notified in advance of any such changes. Final grade will not be curved.

GRADING

Method of evaluation	Weight	Points (max)
Midterm 1	25%	$100 \times 25\% = 25$
Midterm 2	25%	$100 \times 25\% = 25$
Final	25%	$100 \times 25\% = 25$
Case reports	10%	$100 \times 10\% = 10$
Quizzes and Homework Assignments (each 100 points. The average is used in the third column.)	10%	$100 \times 15\% = 15$
Lab participation	5%	$100 \times 5\% = 5$
Total	100%	100
Instructor discretion		+ / -

Letter grade	Range of total points
A	$93 \leq \text{Grade} \leq 100$
A-	$90 \leq \text{Grade} < 93$
B+	$87 \leq \text{Grade} < 90$
B	$83 \leq \text{Grade} < 87$
B-	$80 \leq \text{Grade} < 83$
C+	$77 \leq \text{Grade} < 80$
C	$73 \leq \text{Grade} < 77$
C-	$70 \leq \text{Grade} < 73$
D+	$67 \leq \text{Grade} < 70$
D	$63 \leq \text{Grade} < 67$
D-	$60 \leq \text{Grade} < 63$
F	$0 \leq \text{Grade} < 60$
* The instructor reserves the right to not curve or round up grades even for 0.01 points.	
** The instructor reserves the right to not curve or round up grades on an individual basis.	

*** The instructor reserves the right to change course requirements and grading to optimize the student learning experience. Students will be notified in advance of any such changes.

EXAMS

The exams will be closed-book and closed-notes exams. A formula sheet is allowed on the exam days. **No make-up exam will be given except for unusual circumstances such as severe illness, extremely important meeting and so forth.** Such cases should be supported by written evidence. If you have such an incident, please inform me of your situation by the exam date/time, otherwise you will receive a “zero” for the missed exam.

In case of emergencies or other unexpected circumstances on campus beyond my control, the date, location, and format of the final exam may be changed. I will notify as soon as possible of any such changes.

Homework Assignments

Three homework assignments will be given during the semester. The deadlines will be before the midterm and final exams. Homework assignments will be multiple choice questions (around 25 questions). Homework assignments will be available to you on Blackboard a few days before the deadlines. You can login and input your answers only once. There is no time limit for this assignment. You can exit and return multiple times. Your progress will be saved.

Working hard on these homework assignments not only helps you to get a better grade for your homework assignments, but also helps you to get a better grade in your exams.

No make-up homework assignment will be given except for unusual circumstances such as severe illness, extremely important meeting and so forth.

Group case report

- We will have three group-cases in the class. Each group will consist of three to four students. Team members remain unchanged.
- The group case analysis is intended to allow students to demonstrate their competence with supply chain management concepts and methodologies as well as collaboration and communication skills.
- Case report ***must be typed and no more than 3-5 pages*** (12-point font, 1 inch margins on all sides, 1.5 line-spaced) in length, including any supporting exhibits.
- Case report must have the following sections: title section (names, students IDs, date, class, professor, peer evaluation table), problem description, analysis, findings and conclusions.
- Case analyses should have clear and concise problem statement and well-justified recommendations. The analysis and recommendations must be supported by case facts; assumptions must be reasonable and clearly stated. In preparing the case report, position yourself as an analyst or consultant who is presenting the analysis and making recommendations to the manager.
- Add a peer evaluation table to each report where each group member rates every other group member from 1 to 5, 5 being the most collaborative. Add an average column to the table as well.

- *Individual grade for the group cases will be adjusted on the basis of peer evaluations to promote teamwork and to avoid free-riding.* Two rules will be implemented to avoid bias: (a) if there is only one team member gives a low evaluation, then the evaluation will be ignored with consideration of a personal bias; (b) if the average evaluation grade is 4+, then no adjustment will occur due to acceptable variations of the peer evaluations. Otherwise, Individual case grade will be adjusted based on the average value of peer evaluations.

The case reports will be graded based on the following dimensions:

- Proper diagnosis of the problem;
- Quality of the analysis (including clear statement of criteria for evaluation and assumptions, and the use of relevant tools);
- Quality of report presentation (including logical consistency, and linkage between problem definition, analysis, and recommendations);
- Justification, completeness, and feasibility of the recommendations.

POP QUIZZES

Pop quizzes will be used to evaluate your attendance and participation.

Pop quizzes will be given anytime regularly throughout the semester. No makeup quiz will be given (No Exception). Thus, it is very important to arrive for class on time and stay in the classroom until the class is over.

ATTENDANCE AND PUNCTUALITY

Class attendance is mandatory. Almost every session, there will be one quiz (or multiple quizzes) to check your attendance and participation. Each quiz has 100 points. Quizzes may be at the first moment of the class, in the middle of the class, AND/OR at the last moment of the class. You cannot take the quiz even if you are 1 second late or have already left.

Attendance quizzes have easy questions. For example: Today is ----? (a) Monday (b) Tuesday (c) Wednesday (d) None of the above.

Participation quizzes will be from course materials.

If you need to miss a class, please notify the instructor in advance, with the reason for your absence.

As a courtesy to other students and the instructor and as a demonstration of responsibility, students are expected to be in the class on time. Repeated failure to arrive to class on time will result in a substantial grade adjustment at the end of the semester.

Students are also expected to stay in the classroom until the class is over. Please do not leave in the middle of a lecture as it causes disruption.

No personal conversation is permitted during the class.

Please turn off or keep pagers, phones, watch alarms, etc. in the silent mode during class.

CLASS PARTICIPATION

The classroom is a laboratory in which you can test your ability to present your analysis, recommendations, and implementation plans. Active participation in all class discussions is essential to derive the full benefit of this course.

This class is heavily quantitative and often requires the use of the textbook, a calculator. Students are expected to come to class with these items so they can actively participate in classroom activities.

Please note that a perfect attendance does not guarantee a full credit (100 points) for this grading item. Your active participation does. Students are expected to attend all classes and to be on time for class. If you happen to miss a class, you are responsible for all the missed materials due to your absence. Office hours will NOT be used to go over the materials for missed classes.

Course outline: The following course outline specifies the topic that will be discussed each week. The required preparation for each class, including readings, cases and other assignments will be posted later. Please consult the outline carefully. The outline is due to changes.

Session	Date	Content	Chapter
1	01/10/2023	Lecture	Chapter 1. Understanding the Supply Chain Chapter 2. Supply Chain Performance: Achieving Strategic Fit and Scope Chapter 4. Designing Distribution Networks and Applications to Online Sales Chapter 5. Network Design in the Supply Chain
2	01/12/2023	Lecture	
3	01/17/2023	Lecture	
4	01/19/2023	Lecture	
5	01/24/2023	Lecture	
6	01/26/2023	Lecture	
7	01/31/2023	Lecture <i>Homework Assignment 1 is available online</i>	
8	02/02/2023	Lecture	
9	02/07/2023	Lecture <i>Homework Assignment 1 is due (deadline @8:00 AM)</i>	
10	02/09/2023	Midterm exam 1	
11	02/14/2023	Lecture	Chapter 6. Designing Global Supply Chain Networks Chapter 7. Demand Forecasting in a Supply Chain
12	02/16/2023	Lecture <i>Chapter 5 case report due (deadline @8:00 AM)</i>	
13	02/21/2023	Lecture	
14	02/23/2023	Lecture	
15	02/28/2023	Lecture	
16	03/02/2023	Lecture <i>Homework Assignment 2 is available online</i>	
17	03/07/2023	Lecture	
18	03/09/2023	Lecture <i>Homework Assignment 2 is due (deadline @8:00 AM)</i>	
19	03/14/2023	Spring Recess	
20	03/16/2023	Spring Recess	
21	03/21/2023	Midterm exam 2	
22	03/23/2023	Lecture	Chapter 11. Managing Economies of Scale in a Supply Chain: Cycle Inventory Chapter 12. Managing Uncertainty in a Supply Chain: Safety Inventory Chapter 14. Transportation in a Supply Chain
23	03/28/2023	Lecture <i>Chapter 7 case report due (deadline @8:00 AM)</i>	
24	03/30/2023	Lecture	
25	04/04/2023	Lecture	
26	04/06/2023	Lecture	
27	04/11/2023	Lecture	
28	04/13/2023	Lecture	
29	04/18/2023	Lecture <i>Homework Assignment 3 is available online</i>	
30	04/20/2023	Lecture <i>Chapter 11 case report due (deadline @8:00 AM)</i>	
31	04/25/2023	Lecture	
32	04/27/2023	Lecture <i>Homework Assignment 3 is due (deadline @8:00 AM)</i>	
33	TBD	Final exam	

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/scampus-part-b/>. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://studenthealth.usc.edu/counseling/>

National Suicide Prevention Lifeline – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://sites.google.com/usc.edu/rsvpclientservices/home>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086 Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://eeotix.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

The Office of Disability Services and Programs Provides certification for students with disabilities and helps arrange relevant accommodations. <https://dps.usc.edu/>

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/>

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. <https://diversity.usc.edu/>

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. <https://emergency.usc.edu/>

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime. Provides overall safety to USC community. <https://dps.usc.edu/>