



EBGN 559 - Supply Chain Management
Division of Economics and Business
Spring 2017
M/W 10:30 am – 11:45 am – BH 106

Instructor

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Office hours: Monday/Wednesday 12:30 pm – 2:00 pm, or by appointment.

Course Details

Instructional activity: 3 hour lecture

Course designation: Elective

Course description:

Due to the continuous improvement of information technology, shorter life cycle of products, rapid global expansion, and growing strategic relationships, supply chain management has become a critical asset in today's organizations to stay competitive. The supply chain includes all product, service and information flow from raw material suppliers to end customers. This course focuses on the fundamental concepts and strategies in supply chain management such as inventory management and risk pooling strategies, distribution, procurement, outsourcing strategies, make-to-order/make-to-stock supply chains, supplier relationships and strategic partnerships. It introduces quantitative tools to model, optimize and analyze various decisions in supply chains as well as real-world supply chain cases to analyze the challenges and solutions.

During the semester, students will learn:

- 1) The fundamental concepts and strategies of supply chain management.
- 2) Challenges that arise in supply chains.
- 3) The quantitative decision making tools used to model, optimize and analyze decisions in supply chains.
- 4) Critical thinking skills used to characterize a supply chain, understand its main challenges, and come up with the right techniques and solutions.

Course Materials

Blackboard : This course will make use of Blackboard. All course materials will be available on the course site (listed as EBG559 Supply Chain Management).

Required Textbook: David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Designing and Managing the Supply Chain, Concepts, Strategies and Case Studies, 3rd Edition, McGraw-Hill/Irwin.

Reference Textbook (not required): Jeremy F. Shapiro, Modeling the Supply Chain, Duxbury.

Other Materials: During the semester, some research papers and/or articles may be utilized for class discussion. They will be provided by the instructor.

Software: This course will make use of AMPL/CPLEX to solve mathematical models. It has been uploaded to the Blackboard. Instructions for the installation will be provided in class.

Course Policies

Policy on academic integrity/misconduct: The Colorado School of Mines affirms the principle that all individuals associated with the Mines academic community have a responsibility for establishing, maintaining an fostering an understanding and appreciation for academic integrity. In broad terms, this implies protecting the environment of mutual trust within which scholarly exchange occurs, supporting the ability of the faculty to fairly and effectively evaluate every student's academic achievements, and giving credence to the university's educational mission, its scholarly objectives and the substance of the degrees it awards. The protection of academic integrity requires there to be clear and consistent standards, as well as confrontation and sanctions when individuals violate those standards. The Colorado School of Mines desires an environment free of any and all forms of academic misconduct and expects students to act with integrity at all times.

Academic misconduct is the intentional act of fraud, in which an individual seeks to claim credit for the work and efforts of another without authorization, or uses unauthorized materials or fabricated information in any academic exercise. Student Academic Misconduct arises when a student violates the principle of academic integrity. Such behavior erodes mutual trust, distorts the fair evaluation of academic achievements, violates the ethical code of behavior upon which education and scholarship rest, and undermines the credibility of the university. Because of the serious institutional and individual ramifications, student misconduct arising from violations of academic integrity is not tolerated at Mines. If a student is found to have engaged in such misconduct sanctions such as change of a grade, loss of institutional privileges, or academic suspension or dismissal may be imposed.

The complete policy is available at: <http://bulletin.mines.edu/policiesandprocedures/>

Disability Support: The Colorado School of Mines is committed to ensuring the full participation of all students in its programs, including students with disabilities. If you are registered with Disability Support Services (DSS) and I have received your letter of accommodations, please contact me at your earliest convenience so we can discuss your needs in this course. For questions or other inquiries regarding disabilities, I encourage you to visit disabilities.mines.edu for more information.

Coursework Return Policy: All assignments, exams and the project will be graded and returned within two weeks of their submission date.

Absence Policy: Class attendance is required. Students who miss class should email the instructor for the reason of their absence at least one day prior to the absence. If bonus points are given based on in-class exercises, there will not be any make-ups for students who were absent that day.

Course Assignments & Grading

Homework:

Please check the detailed course schedule below for homework assignments. Homework must be turned in before it is due to be graded. Late submissions will not be accepted for grading. If you would like to

discuss your grade for any specific homework, please bring it to my attention **within a week** of the date it was returned to you.

Case Discussions: There will be 5 in-class case discussions during the semester. Students must be well-prepared before each discussion class and must participate in each discussion. For each case study, students will pair up (you may form different pairs for each case). At the beginning of each case discussion class, each pair must submit a case report (a few pages). Case reports should include (i) a brief summary of the case, and (ii) the answer for each case discussion question.

Exams: There will be two exams (one midterm and one final). Both will be closed book, closed notes. You can bring a two sided 8.5x11 sheet with your notes and formulas. Please make sure to prepare it by hand. Computer printouts will not be accepted. If you are to be absent during a scheduled exam, you should schedule time for a make-up before you leave.

Class Project: In this class, you will be required to complete a term project. You will work in groups of up to 4 students. Please form your groups and email them to me by **January, 18 2017**. Each group will prepare a survey on the supply chain management of a specific industry (such as automotive, retail, energy, mining, health care, etc.). Once the groups are formed, topics will be assigned by the instructor. You are required to prepare a report including:

- A generic overview of the topic,
- Its specific features and challenges,
- The modeling approaches and solution techniques that have been used to analyze it,
- Specific examples on the supply chain management of the assigned topic,
- Examples of successes and failures of companies in the related area.

Each group must give a presentation at the end of the semester. Term project reports are due on **April, 26 2017**.

Grading Procedures: The final grade is based on homework assignments, two exams and the class project. Final grade percentage breakdown is as follows:

Homework Assignments: 30%

Midterm: 20%

Final: 20%

Class Project: 20%

Case Discussion (written and oral): 10%

To pass the course, the overall grade percentage must be at least 60%. The letter grade assignment from your final grade will be based on the following scale:

A	$93 \leq$ Final grade
A-	$90 \leq$ Final grade < 93
B+	$87 \leq$ Final grade < 90
B	$83 \leq$ Final grade < 87
B-	$80 \leq$ Final grade < 83
C+	$77 \leq$ Final grade < 80
C	$73 \leq$ Final grade < 77
C-	$70 \leq$ Final grade < 73
D+	$67 \leq$ Final grade < 70
D	$60 \leq$ Final grade < 67
F	Final grade < 60

Detailed Course Schedule Spring 2017 (subject to minor revision):

Week	Day	Date	Chapter	Topic	Case	Homework	Homework Due Date
1	Tue	1/10/2017	Ch1	Introduction to Supply Chain Management			
	Wed	1/11/2017		Introduction to Optimization Models and AMPL for SCM			
2	Mon	1/16/2017	Martin Luther King Day - Holiday				
	Wed	1/18/2017	Ch1	Introduction to Supply Chain Management	Meditech Surgical		
3	Mon	1/23/2017		Introduction to Optimization Models and AMPL for SCM			
	Wed	1/25/2017		Introduction to Optimization Models and AMPL for SCM		Homework 1	2/8/2017
4	Mon	1/30/2017	Ch2	Inventory Management and Risk Pooling			
	Wed	2/1/2017	Ch2	Inventory Management and Risk Pooling			
5	Mon	2/6/2017	Ch2	Inventory Management and Risk Pooling	Steel Works		
	Wed	2/8/2017	Ch2	Inventory Management and Risk Pooling	Acme Case	Homework 2	2/22/2017
6	Mon	2/13/2017	Ch3	Network Planning			
	Wed	2/15/2017	Ch3	Network Planning			
7	Mon	2/20/2017	Presidents' Day Break				
	Wed	2/22/2017	Ch3	Network Planning		Homework 3	3/1/2017
8	Mon	2/27/2017	Ch4	Supply Contracts			
	Wed	3/1/2017	Ch4	Supply Contracts		Homework 4	3/15/2017
9	Mon	3/6/2017	Midterm				
	Wed	3/8/2017	Ch5	The Value of Information			
10	Mon	3/13/2017	Ch5	The Value of Information			
	Wed	3/15/2017	Ch5	The Value of Information	Reebok NFL Replica Jerseys	Homework 5	3/22/2017
11	Mon	3/20/2017	Ch6	Supply Chain Integration			
	Wed	3/22/2017	Ch6	Supply Chain Integration		Homework 6	4/5/2017
12	Mon	3/27/2017	Spring Break				
	Wed	3/29/2017	Spring Break				
13	Mon	4/3/2017	Ch7	Distribution Strategies			
	Wed	4/5/2017	Ch7	Distribution Strategies		Homework 7	4/17/2017
14	Mon	4/10/2017	Ch11	Coordinated Product and Supply Chain Design			
	Wed	4/12/2017	Ch11	Coordinated Product and Supply Chain Design			
15	Mon	4/17/2017	Ch11	Coordinated Product and Supply Chain Design	HP Network Printer Design for Universality	Homework 8	4/26/2017
	Wed	4/19/2017	Ch8	Strategic Alliances			
16	Mon	4/24/2017	Ch8	Strategic Alliances			
	Wed	4/26/2017	Ch9	Procurement and Outsourcing Strategies		Homework 9	5/3/2017
17	Mon	5/1/2017		Class Project Presentations			
	Wed	5/3/2017		Class Project Presentations			
18	TBA	TBA	Final				