



**EBGN 559A - Supply Chain Management**  
**Division of Economics and Business**  
**Spring 2018**  
M/W 11:00 am – 12:15 am – Hill Hall 204

**Instructor**

Dr. Tulay Flamand

Division of Economics and Business

Room 313, Engineering Hall

Phone: (303) 273-3757

tflamand@mines.edu

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

TA: Gautham Venkatesha Reddy - gvenkateshareddy@mymail.mines.edu

**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 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

**Canvas :** This course will make use of Canvas. All course materials will be available on the course site (listed as Supply Chain Management – Sprg.2018.EBGN559A).

**Textbook (Required) :** David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Designing and Managing the Supply Chain, Concepts, Strategies and Case Studies, 3<sup>rd</sup> 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. The software has been uploaded to the Canvas. Instructions for the installation will be provided by the instructor.

**Simulation Game :** Students will be required to play an in-class simulation game. The game will cost about \$15 per student.

## 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](http://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 about 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. Each student must work individually. 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. Otherwise, it **WILL NOT** be considered for re-grading.

### Simulation Game:

Students will be required to play a simulation game in class. Students will be asked to write a 1-2 page memo including:

- Specific decisions made during the game and their resulting outcomes.
- What decisions lead to your success or failure?
- What could have been done differently or better?

The grade assigned for the memo above will be counted as a homework.

**Case Discussions:** There will be in-class case discussions during the semester. Students must be well-prepared before each discussion class and must participate in each discussion. At the beginning of each case discussion class, each student must submit a case report (1-2 pages). Case reports should include (i) a brief summary of the case, and (ii) the answer for each case discussion question. Violations of academic honesty such as obtaining any material, including case summaries and/or answers of case questions from the internet, will not be tolerated.

**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. Please check the term project handout for the details.

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

Homework Assignments: 20%

Midterm: 20%

Final: 20%

Class Project: 20%

Case Discussion (based on the case report and the class participation): 20%

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

**Detailed Course Schedule Spring 2018 (subject to minor revision):**

Week	Day	Date	Chapter	Topic	Case	Homework	Homework Due Date
1	Wed	1/10/2018	Ch1	Introduction to Supply Chain Management	Meditech Surgical		
	Thu	1/11/2018	Ch1	Introduction to Supply Chain Management			
2	Mon	1/15/2018			Martin Luther King Day - Holiday		
	Wed	1/17/2018	Ch2	Inventory Management and Risk Pooling			
3	Mon	1/22/2018	Ch2	Inventory Management and Risk Pooling	Steel Works		
	Wed	1/24/2018	Ch2	Inventory Management and Risk Pooling			
4	Mon	1/29/2018	Ch2	Inventory Management and Risk Pooling	Acme Case	Homework 1	2/12/2018
	Wed	1/31/2018	Ch3	Network Planning			
5	Mon	2/5/2018	Ch3	Network Planning			
	Wed	2/7/2018	Ch4	Supply Contracts			
6	Mon	2/12/2018	Ch4	Supply Contracts		Homework 2	2/23/2018
	Wed	2/14/2018	Ch5	The Value of Information			
7	Mon	2/19/2018			Presidents' Day Break		
	Wed	2/21/2018	Ch5	The Value of Information			
8	Mon	2/26/2018	Ch5	The Value of Information	Barilla SpA Reebok NFL Replica Jerseys		
	Wed	2/28/2018	Ch5	The Value of Information			
9	Mon	3/5/2018			Midterm		
	Wed	3/7/2018		Simulation Game			
10	Mon	3/12/2018	Ch6	Supply Chain Integration		Homework 3	3/23/2018
	Wed	3/14/2018	Ch6	Supply Chain Integration			
11	Mon	3/19/2018	Ch7	Distribution Strategies			
	Wed	3/21/2018	Ch11	Coordinated Product and Supply Chain Design			
12	Mon	3/26/2018			Spring Break		
	Wed	3/28/2018					
13	Mon	4/2/2018	Ch11	Coordinated Product and Supply Chain Design	HP Network Printer Design for Universality	Homework 4	4/18/2018
	Wed	4/4/2018	Ch11	Coordinated Product and Supply Chain Design			
14	Mon	4/9/2018		Introduction to Optimization Models and AMPL for SCM			
	Wed	4/11/2018		Introduction to Optimization Models and AMPL for SCM			
15	Mon	4/16/2018		Introduction to Optimization Models and AMPL for SCM		Homework 5	4/30/2018
	Wed	4/18/2018		Introduction to Optimization Models and AMPL for SCM			
16	Mon	4/23/2018		Introduction to Optimization Models and AMPL for SCM			
	Wed	4/25/2018		Class Project Presentations			
17	Mon	4/30/2018		Class Project Presentations			
	Wed	5/2/2018		Class Project Presentations			
18	TBA	TBA		Final			