

SUPPLY CHAIN SYSTEMS – SPRING 2009

COURSE: MBAX6865, 3 Credits.

MEETING TIMES: Mondays 6:30-9:15pm, KOLB 300.

INSTRUCTOR: Gregg Macaluso,
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Mr. Macaluso is currently the Director of Procurement Strategy at the Engineering and Industrial Construction Firm of CH2M HILL, headquartered in Denver and in his 8th year of teaching at the Leeds School of Business. Prior to his current role with CH2MHill, Mr. Macaluso is a 20+ year practitioner of Supply Chain concepts and practices for some of the major management consulting firms including Andersen Consulting (now Accenture), Coopers & Lybrand (now IBM Global Services), Ernst & Young (now Cap Gemini), and UPS Supply Chain Solutions. As a result, the intent of the course will be not only to give insight into the course topic but also to share what clients, entrepreneurs, and prospective employers look for in improving operations all over the world. Please feel free to ask for time to talk about careers in operations, supply chain science, quality and the like as your interest dictates.

OFFICE HOURS: Mondays 4:15p-6:15p (KOLB 215) or by appointment.

TEXTBOOK: David Simchi-Levi, Philip Kaminsky, and Edith Simchi-Levi, *Designing and Managing the Supply Chain*, 3rd Edition, 2007. Irwin McGraw-Hill.

Lean Thinking by James P. Womack and Daniel T. Jones; Simon & Schuster, 1996. Chapters 1-6.

The Womack text is readily available in libraries and other sources if you choose not to buy but you will be responsible for the material. Supplies have been ordered for this class and are in the bookstore.

WEB SITE: <http://gmacaluso.pageout.net> Everything supplemental to the text will be on this website. Text notes, supplemental PowerPoint materials, rubrics for the assignments, answers to the in-class assignments or cases (after they are due), practice exam questions, a discussion area so

that you chat with other students, the syllabus, hints, updated due dates and announcements for the class, etc. So PLEASE, check back often.

OVERVIEW: Supply Chain Management coordinates and integrates the flow of materials, information, and capital as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer, both within and among companies. Due to an increased corporate focus on manufacturing cost reductions, Supply Chain Management has grown rapidly over the past several years. To minimize system-wide costs, firms increasingly rely on new supply chain modeling tools that allow the firm's logistics and operations to be integrated.

This course introduces students to the fundamental principles underlying supply chains, and focuses on the integration with both operations and logistics. In particular, the course will concentrate on the design and management of effective, tailored supply chains, ... those that deliver customer value while maintaining cost advantage.

OBJECTIVES: The primary course objectives are as follows:

- To compare and contrast major supply chain architectures and strategies, and evaluate their applicability in different settings;
- To develop a basic familiarity with important concepts and methods related to inventory management, aggregate planning, and network design;
- To recognize critical coordination and integration issues in Supply Chain Management;
- To identify and analyze recent developments in Supply Chain Management;
- To study Supply Chains in a real-life setting, and apply your knowledge to identify opportunities for improvement.

To achieve these objectives, students will work on case studies and assignments, as well as readings. In addition, in-class exercises, games, simulations, and a course project are used to illustrate and analyze key concepts. My objective is to get you to think-critically about operations and supply chain issues so that you can discern value when presented. It is always my second and oft unstated goal to prepare you for the sales-task that comes with any proposed change ... as that is often the more difficult task between identifying and capturing value.

PREREQUISITES: MBAC6080, Decision Modeling and Applications and/or equivalent graduate or undergraduate level process mapping/improvement, supply chain, logistics or operations management curriculum.

EVALUATION: There are four principal requirements for the course: Case reports and assignments, Exams, Class Participation, and Group Projects.

1. Case & Chapter Reports

I expect each student to have prepared assigned cases and chapter reading notes before they are discussed in class. On the day a case or chapter is discussed in class, a brief summary (1 or 2 pages) of your thoughts, ideas, approach, and questions is due before the start of class. Late notes will not be accepted.

During the semester, I may also give two or three individual assignments and/or post several practice questions that's answers are to be included in with weekly or otherwise assigned reports.

2. Exams

During the semester, there will be both a midterm and a final exam. They are both take-home exams, and the final exam is comprehensive for the entire course. The format for the tests will be a combination of multiple-choice and short-response or problem-solving.

3. Class Participation

From time to time I will sample attendance or pop quiz. Repeated absences (or late arrivals) may result in a reduced grade. Face it, ... this is a 3 hour time together each week ... the only way to make this feel like 2 hours and 50 minutes :-)) is for you and I to have a conversation each week about and over the material. I'll bring stories, games, and all forms of what I hope is interesting and entertaining material ... you'll need to bring "you" to make it all work. Can't mail in class time here. Participation/attendance will form part of your grade.

4. Group Projects

Group projects will provide students the opportunity to analyze course topics in a real-world setting. The class will be divided into several project groups that each work on a company project related to Supply Chain Management. The purpose of the project is to perform a systematic audit of the current supply chain, and to identify opportunities for improvement.

As a team, the group will prepare both oral and written presentations for each part of the project. Although the entire group will be graded on both presentations, each team member will be allowed to provide a peer evaluation of other team members. An individual student's grade will be a composite of the team grade and his/her peer evaluations.

There will be two cases included for group work: **Joe's Microelectronics & Strategic Sourcing Cases**

Joe's Microelectronics

This is a study of how to employ Lean techniques in a production environment. It will test the students' ability to assimilate data and make recommendations for a company that is in trouble relative to both quality and productivity. Students will be put in teams of 4 and assigned to interview Joe's executive team about the issues faced at the company. The teams will then review information given, agree on improvement recommendations, calculate benefit, and present (via PowerPoint) to management. The instructor will look through the responses and a subset of teams may be asked to present in front of the class (time permitting). All teams will receive a review of their recommendations so an accompanying Word document (2-4 pages 1.5-2 line spacing) is required as an attachment to the PowerPoint response format.

Strategic Sourcing Case

The single biggest expense incurred by most companies is for goods and services paid to other companies. Learning how to identify/capture, analyze and report strategies to save money on a company's purchases can represent millions of dollars of savings to organizations that do this successfully. Students will be given a data base of information (MS Access) on a company's spend. Students will take this data base of information, prepare various views and conclusions from the data (in MS Access or Excel) and prepare an MS PowerPoint presentation suitable for senior management evaluation and action. The presentation will point out key objectives in analyzing spend, summaries of what the data shows, pertinent analysis, and conclusions pointing out opportunity and suggesting action. The students will be evaluated on the completeness of their analysis, ability to manipulate the base data offered shown through various computer manipulations, and the completeness and persuasiveness of their final presentation to management.

GRADING:	Case & Chapter Reports	20 %
	Group Projects	
	- Joe's Microelectronics	20%
	- Strategic Sourcing Case	15%
	Midterm Exam	15 %
	Final Exam	20 %
	Class Participation	10 %

ACCOMODATIONS:

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and www.Colorado.EDU/disabilityservices

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at www.colorado.edu/disabilityservices.

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, students who have conflicts should contact me as soon as possible (i.e. at least two weeks in advance) so that arrangements in accordance with the campus policy can be made. Policy details can be found at http://www.colorado.edu/policies/fac_relig.html

CLASSROOM POLICY:

It is expected that each student will have read the assigned material before he/she comes to class.

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at

<http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

HONOR CODE:

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>

SEXUAL HARASSMENT POLICY:

The University of Colorado at Boulder policy on Discrimination and Harassment (<http://www.colorado.edu/policies/discrimination.html>), the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>

TENTATIVE COURSE SCHEDULE:

Reading and cases mentioned are to be prepared prior to the date listed ... Case and Chapter Reports are due on date listed.

Date	Topic	Text Reading
1/12	Course Overview & Syllabus/Website Review, Supply Chain Overview, S/C impact on Market Cap Basic/Classic S/C Model <i>In Class Read/Discussion: Bullwhip Principle – Lee, et. al</i>	
1/26	S/C Models & Alternatives <i>Game: Software Based - Beer Game (in class) & Recap.</i> CTO/MTO S/C Model alternative (StorageTek eg.) <i>In Class Read/Discussion: To Pull or Not to Pull Hopp/Spearman</i>	Ch. 1, Bullwhip- Case Report, Appendix A- Beer Game
2/2	Supply Chain Overview <i>Case: Barilla Spa (Vendor Managed Inv)</i> <i>Guest Speaker: Making the Case for Change</i> <i>William C. Carey - CPA</i>	Ch. 5, To Pull or Not to Pull - Case Report
2/9	Pull Strategies Introduction to Pull Concepts (Website) <i>Case: Dell Inc</i>	Ch. 6, Website Materials
2/16	Pull Strategies Joe's Microelectronics mtl (Website) <i>Game: Lean Game (in class)</i>	Womack Ch 1-6 Group Setup
2/23	Joe Microelectronics Staff Interviews <i>Case: Joe's Microelectronics</i>	Group Project
3/2	Joe's Microelectronics Case Due Select Class Presentations Echelon Mapping & Demand Profiling (Website)	Ch. 2, Website Materials
3/9	Inventory Management, Tailored Supply Chains Echelon Map, Demand Profiling Cont) <i>Case: Reebok NFL Replica Jerseys (postponement)</i> MIDTERM (Take Home)	Ch. 2
3/16	Network Planning & Distribution Strategies <i>Case: Amazon.com European Distribution Strategy</i>	Ch. 3, 7
3/30	Closed Loop, Sustainable Supply Chains <i>Guest Speaker: Richard Reynolds Teleconference</i> <i>Recorded from Abu Dhabi,</i>	Mtl (Website)

UAE – Masdar City (planned).

4/6	Strategic Sourcing/Alliances & Procurement <i>Case: Strategic Sourcing Case Introduction</i>	Mtl (Website) Ch. 8
4/13	Strategic Sourcing (cont) <i>Case: Zara – JIT Fashions vs China Outsourcing</i>	Group Project Ch. 9
4/20	Strategic Sourcing Case Due – Select Presentations International & Outsourced Supply Chains <i>Presentation: Peter v Porter: The Debate</i>	Ch. 9 cont), McKinsey & Co. Outsourcing Mtl.
4/27	IT & S/C Visibility, Course Review <i>Case: 7-11 Stocks Up on Tech Savvy</i> FINAL EXAM (Take Home)	Ch 14, 15