



SCM 7010 (A01) (3.0 CH)
ADVANCED SUPPLY CHAIN MANAGEMENT
Summer 2010

INSTRUCTOR

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Office Location: 682 Drake

Office Hours: by appointment

Class Time: Tuesday & Thursday

6:15 – 9:30p

COURSE DESCRIPTION

This course addresses issues and approaches associated with the management of supply chains, such as value stream mapping, demand planning and replenishment, vertical integration and outsourcing, supply chain integration, risk pooling and postponement strategies, and supply chain relationships. The course also includes a segment on humanitarian supply chain management, with an emphasis on supply chain preparedness for responding to disasters.

COURSE OBJECTIVES

The objective of this course is to further examine fundamental concepts of supply chain management from a general management perspective, rather than from a technical perspective. Although you may not be involved in the direct management of supply chains in current or future employment, it will be useful to understand the problems and complexity faced by managers who do address supply chain issues.

At the conclusion of this course, you should appreciate:

- the importance of a focus on managing the supply network for strategic competitive advantage in today's world of global competition, shorter product life cycles, internet and e-business applications, and new forms of distribution,
- the importance of supply chain integration, supply relationships, and the sharing of risks and rewards, and
- the importance of both the swift flow (of physical items, units of work, cash, information) and the reduction of variance within supply networks.

COURSE MATERIALS (all available at the U of M Bookstore)

- Taylor, David A. (2004), *Supply Chains: A Manager's Guide*, Addison-Wesley (Pearson Education), Boston.
- Package of cases and readings
- Access code for the Supply Chain Game (at the service desk at the bookstore or via online payment)

METHODS OF INSTRUCTION

The primary method of instruction will be the analysis and discussion of case studies. This requires active student participation. Each case presents a supply chain situation in which a decision must be made in light of a number of tradeoffs and alternatives. Class time will be devoted to discussing the situation, the implications of various options, and action to be taken to implement preferred options. There is no right answer to a case but there are definitely approaches that address the issues and recognize the tradeoffs involved.

Other activities will include exercises, discussions, a web-based game and associated debriefing session, a guest speaker, and student presentations.

PERFORMANCE EVALUATION

Individual Performance

Mini-Tests	8%	
Participation	20%	
Proposal	5%	
Paper	25%	
Presentation	5%	63 %

Group Performance

Mini-Tests	7%	
Group Exercises	15%	
Supply Chain Game	15%	<u>37 %</u>
		100 %

Mini-Tests. These are short, multiple-choice tests. Each one will cover most of the reading assignments for a number of sessions but not the content of any cases. Each test will be administered twice, first individually and then to your group. This serves two purposes. First, it encourages you to be prepared to do your fair share in upcoming group activities. Second, it should increase your group's understanding of the assigned material.

It is important to master the course content. However, scarce class time is best spent on other activities. The mini-test procedure is a well-developed and well-tested method that serves two purposes. First, it encourages you to "get ahead" with mastering some of the course content, so you can do your fair share and make more informed contributions in upcoming class activities. Second, it should raise your group's level of understanding of the assigned study material – beyond the level of any individual group member.

I will discard the individual and group scores for the session in which you have your worst individual result. Then, the weight will be assigned to the remaining two sessions equally (i.e., 4% for each individual mini-test and 3.5% for each group mini-test).

Participation. Participation in case discussions (and similar) is very important. I expect you to actively participate in advancing the learning of the class. Participation means making a useful contribution in a fair number of sessions. Generally, you may choose your moments. However, on a given day, I may

call on you for your contribution or I may include your name in a list of people from whom I expect to hear.

In general, a useful contribution helps push the understanding of the class forward. Examples include, but are not limited to, being involved in a discussion of assigned material, arguing your point of view during a case discussion, asking a relevant question, suggesting an alternate viewpoint, or redirecting our attention to something else in need of discussion. You do not have to be a top participant in each session, nor do you have to have the "right answer."

Although I expect you to attend every session, attendance is not the same as participation. On those very rare occasions when you are unprepared for a session and do not wish to be included in the discussion, please let me know in advance (voicemail or e-mail), but please attend. As well, please let me know if you plan to be absent. You do not have to explain; I will simply expect more from you later.

I judge participation for each session on a scale of 0 to 4, where 4 indicates an extensive contribution and 0 indicates no contribution. A regular contribution, such as building on points made by others, is worth 1. At the end of the course, I will determine overall participation by assigning grades to the best and worst participators and scaling others accordingly. **Note:** This makes it possible for everyone to do well in participation.

Proposal. This is a proposal for your paper (maximum one page) that you submit for my approval by the deadline (April 20). The purpose of the proposal is to allow you to select your own topic, while allowing me to provide some restrictions and guidance. There will be one student per similar topic (first come, first served). Hand in your proposals as early as possible. Late proposals will attract a grading penalty. Poor proposals may be returned a number of times for resubmission. **Note.** Instructions concerning style, page length, deadlines, and so forth - for both the proposal and the paper - will be handed out in class.

Paper. This is an individual paper on a topic that you have selected and I have agreed to. It must be submitted by the deadline (May 06). Of course, no paper will be late; nevertheless, a late paper will attract a penalty of minus 10% per day.

Presentation. You will present your paper to the class during our last session.

In-Class Group Exercises. For these, you will be working on an activity with your group. For a given session, your group will work on some form of "deliverable." Such deliverables might include a summary of the group's recommendation for a case situation, overheads suitable for a presentation, a chart, the results of a problem solving exercise, or a summary of the main points of your group's deliberations on a particular subject, to name a few. While designing these activities, I will assume you have mastered the appropriate content (via assigned readings, etc.) and are ready to apply your knowledge to the group activity.

A Note on Group Learning. A common objection to group work is, "I'm a good student; working with a group will lower my grade." While this may be so for one-shot group activities, such as a group term paper, it is not the case for the type of in-class group exercises we will be doing. Research in this area has shown that the group almost always outperforms its best member (about 97% of the time). So, even if you are the top individual performer in your group, your performance will likely be raised, not lowered, by the group activities.

Supply Chain Game. This is a web-based game played between groups. The game will be available in suspended mode for some time before it begins. Your group should use this time to become familiar with the game, determine a strategy, and prepare to play. The game takes place outside of class time – over a number of weeks. You will need to be in regular contact with your group members during the game, with the methods and timing decided by your group. Please see the separate handout for more detail.

COURSE SCHEDULE – Spring/Summer 2010 – updated March 29/10

Date	Readings	Topics/Events
Apr 06	Chs. 1, 2 R1	01a: Introduction to course 01b: Exercise: Supply Chain Management: Focus and Environment
Apr 08	Chs. 3, 4 R2	02a: Case: Dabbawallahs of Mumbai 02b: Exercise: Value Stream Mapping, Part I
Apr 13	Chs. 7, 8 R3	03a: Case: Sport Obermeyer 03b: Exercise: Replenishment
Apr 15	Chs. 9, 10	04a: Case: Hewlett-Packard: DeskJet Printer Supply Chain 04b: Mini-test #1; Exercise: Value Stream Mapping, Part II
Apr 20		Proposals due
Apr 20	Chs. 11, 12 R4, R5	05a: Case: Zara, IT for Fast Fashion 05b: Exercise: Vertical Integration / Outsourcing
Apr 22	Chs. 13, 14	06a: Case: Hewlett-Packard: Network Printer Design for Universality 06b: Mini-test #2; Exercise: Design for Supply
Apr 27	Ch. 15 R6	07a: Guest Speaker – Dan Maxson 07b: Case: IFRC: Preparing for Tomorrow's Disasters
Apr 29	R7	08a: Case: IFRC: The Gujarat Earthquake 08b: Mini-test #3; Exercise: Needs Assessment
May 04	R8	09a: Discussion: Pre-positioning Relief Supplies 09b: Supply Chain Game Debriefing; Course Evaluation
May 06		Papers due
May 06	none	10: Student Presentations

Readings

- R1. Mentzer, John T. et al. (2001), "Defining Supply Chain Management," *Journal of Business Logistics*, Vol. 22, No. 2, pp. 1-25.
- R2. Meredith, Jack R. and Shafer, Scott M. (2010), *Operations Management for MBAs*, 4th ed. New York: John Wiley & Sons, Inc., pp. 184-190.
- R3. Liker, Jeffrey K. and Choi, Thomas Y. (2004), "Building Deep Supplier Relationships," *Harvard Business Review*, Vol. 82, No. 12, pp. 104-113.
- R4. Ferdows, Kasra et al. (2004), "Rapid-Fire Fulfillment," *Harvard Business Review*, Vol. 82, No. 11, pp. 104-109.

- R5. Hayes, Robert et al. (2005), "Determining Organizational Boundaries: Vertical Integration and Outsourcing," Chap. 4 in *Operations, Strategy, and Technology: Pursuing the Competitive Edge*, New York: Wiley.
- R6. Van Wassenhove, Luc N. (2006), "Humanitarian Aid Logistics: Supply Chain Management in High Gear," *Journal of the Operational Research Society*, Vol. 57, No. 5, pp. 475-489.
- R7. Kovács, Gyöngyi and Spens, Karen M. (2007), "Humanitarian Logistics in Disaster Relief Operations," *International Journal of Physical Distribution & Logistics Management*, Vol. 37, No. 2, pp. 99-114.
- R8. McLachlin, Ron and Larson, Paul D. (2009), "Pre-Positioning in Humanitarian Logistics: A Postponement Strategy?" *Proceedings of International Humanitarian Logistics Symposium*, Faringdon, UK, (CD-ROM).

Mini-test coverage

Mini-Test One:

Taylor: Chapters 1 to 4, plus 7
Readings R1, R2

Mini-Test Two:

Taylor: Chapters 8 to 12
Readings R3 to R5

Mini-Test Three:

Taylor: Chapters 13 to 15
Readings R6 to R8

Session Assignments (Note: listed in alphabetical order)

For each of the case/discussion sessions, you have been assigned some "Questions for Consideration." These are for guidance only, to help you focus on certain aspects of the material. For each case, you should be prepared, at a minimum, to address each question in class. However, each case discussion will normally follow a sequence of:

Issues
Criteria
Discussion / Analysis
Plan of Action

Overall, putting yourself in the position of the decision maker, the real issue is what should be done and why. That is, as the decision maker, how do you plan to resolve the situation?

Note: I have attempted to match the content of readings and cases/discussions to some degree. However, there is no implied direct match; readings may contain concepts that are not in particular cases/discussions and vice versa.

Case: Dabbawallahs of Mumbai (A)

Questions for Consideration:

1. What factors need to be in place for a service like the dabbawallahs to work effectively?
2. What supply chain issues are raised by the dabbawallah delivery network? How do they manage the flows of demand, supply, and cash? How do they deal with complexity and variability? How do they measure and reward performance?
3. Is the dabbawallah meal distribution network an example of a world-class service? If yes, why hasn't their model been successfully replicated elsewhere? If not, what change(s) would be required to achieve world-class status?
4. Do you agree with Raghunath Medge's assessment of the future of the dabbawallahs? If so, why? If not, what are the major risks and challenges for the dabbawallahs going forward?
5. What operational capabilities does the dabbawallah service possess?
6. As Raghunath Medge, how would you lever these capabilities in the future?

Case: Hewlett-Packard: DeskJet Printer Supply Chain

Questions for Consideration:

1. What are the causes of the inventory vs. service problem?
2. What changes should be made in manufacturing and distribution to meet the goal of limiting inventory while providing a high level of service?
3. Would it be worthwhile to have the distribution centres perform some manufacturing tasks? Why or why not?
4. What would you recommend concerning the following suggestions?
 - a. Switch to air shipments of printers from Vancouver.
 - b. Build a European factory.
 - c. Hold more inventory at the European Distribution Centre.
 - d. Improve forecasting practices.
5. As Brent Cartier, what will you discuss when you phone the three Distribution Centre materials managers? What will you recommend to David Arkadia (your boss)?

Case: Hewlett-Packard: Network Printer Design for Universality

Questions for Consideration

1. In what way is a universal power supply a postponement strategy?
2. What are the cost and benefits of a universal power supply (feel free to make assumptions)?
3. How would such costs and benefits be different over the product life cycle?
4. As a member of the team, what are your recommendations about the adoption of a universal power supply?
5. What other operational improvements do you suggest for HP Boise?

Case: IFRC: The Gujarat Earthquake

Questions for Consideration:

1. What are the important considerations for effectively managing supply chains in disaster response situations?
2. As Bernard Chomelier, how do you size up IFRC's performance during the Gujarat earthquake? What did IFRC do right?
3. What changes should be made to improve effectiveness during future relief efforts?

Case: IFRC: Preparing for Tomorrow's Disasters

Questions for Consideration:

1. How do you size up the situation concerning Hurricane Mitch? Why did this disaster lead to a reaction by the IFRC at this time?
2. What would be the characteristics of a good response to a disaster?
3. What actions did IFRC take to be better prepared for the next disaster?
4. After these efforts, how well prepared were they to respond to the next disaster?

Case: Sport Obermeyer

Questions for Consideration:

1. As Wally Obermeyer, use the sample data given in Exhibit 10 to decide how many units of each style to order during the initial phase of production. Assume that all ten styles in the sample problem are made in Hong Kong and that the initial production commitment must be at least 10,000 units. (Ignore price differences among styles in your initial analysis.)
2. What operational changes will you make to improve performance?
3. How should Obermeyer management think (both short-term and long-term) about sourcing in Hong Kong versus China?

Case: Zara: IT for Fast Fashion

Questions for Consideration:

1. What is Zara's supply chain design? Does this fit their current strategy?
2. What are the flows of demand, supply, and cash?
3. What are the processes from an initial design idea to an item being available at retail outlets? Typically, how long does this take?
4. How vertically integrated is Zara? Should they consider more (or less) outsourcing? Why or why not?
5. As Mr. Salgado, what will you do concerning the issue of upgrading the POS terminals? Will you upgrade to a modern operating system? Should the POS applications be rewritten to include any additional functionality? If so, what functionality?

ACADEMIC REGULATIONS

Students are encouraged to contact Disability Services at 474-6213 or the instructor should special arrangements need to be made to meet course requirements.



ACADEMIC INTEGRITY

I.H. Asper School of Business, The University of Manitoba

It is critical to the reputation of the I. H. Asper School of Business and of our degrees that everyone associated with our faculty behaves with the highest academic integrity. As the faculty that helps create business and government leaders, we have a special obligation to ensure that our ethical standards are beyond reproach. Any dishonesty in our academic transactions violates this trust. The University of Manitoba Graduate Calendar addresses the issue of academic dishonesty under the heading "Plagiarism and Cheating." Specifically, acts of academic dishonesty include, but are not limited to:

- using the exact words of a published or unpublished author without quotation marks and without referencing the source of these words
- duplicating a table, graph or diagram, in whole or in part, without referencing the source
- paraphrasing the conceptual framework, research design, interpretation, or any other ideas of another person, whether written or verbal (e.g., personal communications, ideas from a verbal presentation) without referencing the source
- copying the answers of another student in any test, examination, or take-home assignment
- providing answers to another student in any test, examination, or take-home assignment
- taking any unauthorized materials into an examination or term test (crib notes)
- impersonating another student or allowing another person to impersonate oneself for the purpose of submitting academic work or writing any test or examination
- stealing or mutilating library materials
- accessing tests prior to the time and date of the sitting
- changing name or answer(s) on a test after that test has been graded and returned
- submitting the same paper or portions thereof for more than one assignment, without discussions with the instructors involved.

Many courses in the I. H. Asper School of Business require group projects. Students should be aware that group projects are subject to the same rules regarding academic dishonesty. Because of the unique nature of group projects, all group members should exercise special care to insure that the group project does not violate the policy on Academic Integrity. Should a violation occur, group members are jointly accountable unless the violation can be attributed to a specific individual(s).

Some courses, while not requiring group projects, encourage students to work together in groups (or at least do not prohibit it) before submitting individual assignments. Students are encouraged to discuss this issue as it related to academic integrity with their instructor to avoid violating this policy.

In the I. H. Asper School of Business, all suspected cases of academic dishonesty are passed to the Dean's office in order to ensure consistency of treatment.



MEDICAL ABSENTEEISM FORM

I.H. Asper School of Business, The University of Manitoba

STUDENT IDENTIFICATION: (PLEASE PRINT CLEARLY)

_____	_____	_____	_____
Last Name	First Name	Middle Initial	U of M Student Identification Number
_____	_____		
Course #	Instructor Name		
_____	_____		
Student's Signature	Date		

TO BE COMPLETED BY THE ATTENDING PHYSICIAN: (after the above section is completed) (PLEASE PRINT CLEARLY)

_____	_____	_____
Physician's Last Name	Physician's First Name	Middle Initial
_____	_____	_____
Street Address	City, Province	Postal Code
_____	_____	_____
Telephone Number	Fax Number	
_____	_____	
<p>To the attention of the physician: Your evaluation of the student's condition is being used for the purpose of determining whether or not the student has a <u>valid reason</u> to miss an important <u>exam</u> or <u>assignment</u>. Your professional evaluation is necessary to ensure that only valid cases are excused.</p>		
<p>I certify that the nature of the student's condition is severe enough to prevent the student from taking an exam or completing an assignment. If requested, my associates or I will verify for the above named instructor/administrator that this information is accurate.</p>		
The student's condition will likely span the following dates:		
_____	until	_____
(Indicate start date)		(Indicate end date)
_____	_____	
Physician's Signature	Date	

NOTES TO PHYSICIAN:

- Please make a note in the student/patient's file indicating that the student has given the above named instructor/administrator permission to verify with you, your staff, or your colleagues, that the information contained on this form is correct. Thank you for your professional evaluation of this student's condition.
- **PLEASE ATTACH THIS FORM TO YOUR REGULAR OFFICE STATIONERY THAT INDICATES THE STUDENT VISITED YOUR OFFICE.**

NOTES TO STUDENT:

- The use of this form is at the option of the student. However, in order to obtain an excused absence for an assignment or exam the student must obtain a doctor's certification that the student's condition is severe enough to prevent the student from taking the exam or completing the assignment.
- It is NOT SUFFICIENT to provide a note that only indicates the student visited the doctor's office.



FACULTY BIOGRAPHY

I.H. Asper School of Business. The University of Manitoba

Ron McLachlin, Ph.D. is an Associate Professor of Operations Management at the University of Manitoba, Asper School of Business. He earned his B.Sc.(Eng) and MBA degrees at the University of Alberta and his Ph.D. in Operations Management at the University of Western Ontario.

Dr. McLachlin's research interests are in operations strategy and supply chain strategy. His recent research concerns humanitarian supply chain management with an emphasis on issues of preparedness for responding to disasters. Within this, his focus is on strategies for pre-positioning relief supplies and the associated relationships within and among organizations that influence these efforts. He is also researching the transport of perishable food products between Canada and Mexico. He is the Canadian Regional Editor for Operations Management Research, on the Editorial Advisory Board for the Journal of Humanitarian Logistics and Supply Chain Management (to be launched in 2011), and was an Associate Editor (1998 to 2008) for the Journal of Operations Management.

He has published in journals such as the Journal of Operations Management and the International Journal of Manufacturing Technology and Management and has presented papers and participated in panel sessions at conferences such as those of the Production and Operations Management Society, the Administrative Sciences Association of Canada, the International Humanitarian Logistics Symposium, and the Decision Sciences Institute.

He has taught operations management, the management of quality, service operations, production seminars, operations strategy, topics in advanced production and operations management, and advanced supply chain management.