

STRATEGIC SUPPLY CHAIN MANAGEMENT (OM367, 04850)

SYLLABUS, SPRING 2022

MEETING TIME & LOCATION:

Tuesdays and Thursdays, 3:30-4:45PM, UTC 1.130

INSTRUCTOR:

Guoming Lai, Professor

Office Hour: Fridays 2:30-3:30PM (Zoom)

Contact Information: guoming.lai@mcombs.utexas.edu

TEACHING ASSISTANT:

Amarendra Kancharla

Office Hour (Zoom): Wednesdays 6-7PM, or by appointment

Contact Information: amarendra@utexas.edu

COURSE DESCRIPTION:

Supply Chain Management involves the flows of materials and information among all of the firms that contribute value to a product, from the source of raw materials to end customers. We will integrate issues from marketing (channels of distribution), logistics, and operations management to develop a broad understanding of a supply chain. By taking a strategic perspective, we will focus on relatively long-term decisions involving the investment in productive resources, configuration of processes, product designs, and development of partnerships with suppliers and channels of distribution.

COURSE OBJECTIVES:

The course seeks to both improve your understanding of operations strategies and enhance your analytical skills. The course will present several analytical techniques which would aid you in making decisions in the real world. In the meanwhile, the course will introduce you various aspects, issues, and initiatives in nowadays business operations. At the end of this course, you should have:

- The understanding of the importance of operations strategies and the challenges;
- Developed an appreciation for the major strategic issues and trade-offs in supply chain management;
- Acquired analytical capability to uncover problems and improvement opportunities in supply chain management and recommend improvement along the dimensions of efficiency, quality and speed, and improved team-work capability to cooperate with others to solve business operations problems in supply chain management.

COURSE MATERIALS:

- Required Course Pack: A pack of cases is available for purchase through the UT Copy Center Website. Individual and group assignments are based on these cases. We will discuss the cases in class.
- Optional Textbook: (VM) Van Mieghem, Jan, *Operations Strategy: Principles and Practice*, Dynamic Ideas, Charlestown, MA, 2008.
- Course website: All materials available in electronic format (lecture slides/notes, homework assignments, homework solutions, sample exams, exam solutions, etc.) will be posted at Canvas course website (<http://utexas.instructure.com>). Several lecture slides/notes will be posted before the class.

COURSE EVALUATION:

Midterm I	20%
Midterm II	20%
Final Exam	35%
Homework	20%
Class Participation	5%

Based on the past experience of this course, most students receive grades above B-. Grades lower than B- will be assigned on a case by case basis.

Midterms

There are two in-class non-comprehensive midterms during the class period, conducted online through Canvas. Although they are computer based, they are individual exams and no discussion is allowed.

Final Exam

There is one in-class comprehensive exam in the last week of the semester, conducted online through Canvas. It is again an individual exam and no discussion is allowed.

Homework

▪ Individual Homework

Individual homework assignments serve one of two purposes. Either they are intended to provide an opportunity to use one of the analytical frameworks from class, or they are intended to help you to prepare for a class discussion of a case. Partial credit might be awarded for evidence of effort.

- You may discuss the assigned problems with your classmates. But you should write YOUR OWN solutions.
- You should provide formulas, steps, or reasons to support your solutions. Submissions with only the final solutions will not be given any credit. Submissions can be either typed or hand-written. However, please make sure that they are *readable*.

▪ Group Homework

The first two group assignments may require each group to conduct case analysis and then write an executive summary (ES). In those assignments, you will be asked to analyze a specific issue and make a recommendation. In general, an ES should accomplish the following:

- Articulate the operational problem in terms of how it affects important measures of the firm's performance.
- Identify and analyze the major alternatives.
- Present a persuasive argument for a particular course of action.

Each ES will provide several questions that are intended to guide your analysis/thought process. However, although the ES that you submit should reflect your consideration of the assignment questions, it should not be just a list of answers to these questions. Instead, it should be a logical and persuasive recommendation for action. A brief description of an ES and a sample are provided at the end of this document. Please restrict yourselves to one page of text (additional pages may be attached for exhibits). You may use single-spacing, but please use a reasonable font size, i.e. at least 11 pt.

The third group assignment is based on a global supply chain simulation. You will need to log on to Harvard Business Review website and pay a fee of \$15 per group. Specific instructions for the exercise will be provided. Grades will be based on both your write-up and your performance in the game.

The fourth group assignment will be the final project of the course. The project consists of two parts. The offline part requires you to conduct some quantitative analysis of a global procurement context. Then, you will compete in the class by groups. The winner will be the group that gets the highest profit. After the game, each group will write up the offline analysis and also describe the optimal inventory and procurement strategy you believe based on the simulation game.

Grading

Please turn in all assignments before the deadline. No late submissions will be accepted. Solutions to the homework will be distributed or discussed in the class. Please study each solution carefully even if you received full credit on the assignment.

Class Participation

To foster a productive learning environment, it is important that everyone come to class prepared and willing to contribute to discussion. Ideally, you will make concise, insightful, and eloquent comments in every class. However, I also recognize the importance of making smaller contributions, including asking questions. I believe that the learning environment is best when the discussion is not dominated by a few, but moved along incrementally by all of us. Do not be afraid to make points that you may regard as minor, ask clarifying questions, or otherwise contribute in small ways.

Feedback

Your informal feedback is very important to me. Please let me know throughout the semester if there is anything I can do to make this class better for you.

COURSE SCHEDULE:

The following is a tentative schedule of meetings, readings, and deliverables for the semester. This is subject to change. When there are major changes, you will be notified by email; a current schedule will always be available on the Canvas course website. *Note.* CP: the course pack.

Date	Topic	Recommended Reading List	Assignments Due
1/18	Introduction		
1/20	Capacity Sizing under Uncertainty		
1/25	Capacity Sizing under Uncertainty		
1/27	Capacity Sizing under Uncertainty		IH1
2/1	Capacity Timing		
2/3	Long Term Capital Investment	CP: Harley Davidson	GH1
2/8	Product Design to Hedge Demand Risk	CP: HP UPS	
2/10	Product Design to Hedge Demand Risk		GH2
2/15	Value of Operations Flexibility		
2/17	Economies of Scale and Logistics Design	CP: Dollar Tree Logistics	IH2
2/22	Quiz 1		
2/24	Sales and Operations Planning	CP: Cross River	IH3
3/1	Capacity Portfolio	CP: Seagate	IH4
3/3	Capacity Portfolio		
3/8	Supply Chain Coordination	Johnson Elevator (eCopy)	IH5
3/22	Supply Chain Coordination		
3/24	Contracts in the Sharing Economy	CP: Cargo	IH6
3/29	Global Competition Analysis	CP: American Connector	IH7
3/31	Offline Global Production Outsourcing Simulation: Due 4/3 Midnight		
4/5	Debrief Global Production Outsourcing		GH3
4/7	Quiz 2		
4/12	Revenue Management and Pricing		
4/14	Revenue Management and Pricing	CP: Cambridge Software	IH8
4/19	Procurement Auction Game		
4/21	Supply Chain Inventory Management		
4/26	Dual Sourcing Simulation: Mexico vs. China	CP: China/Mexico Sourcing	
4/28	Dual Sourcing Simulation: Mexico vs. China		GH4
5/3	Q&A Session		
5/5	Exam		

THE EXECUTIVE SUMMARY

Typically, an executive summary is a short synopsis of a longer report. However, for the purposes of this course, your *entire* report will be a single-paged executive summary, the objective of which is to describe and justify a specific course of action as concisely as possible. The intention, in limiting you to a single page of text, is to force you to focus on the most compelling arguments for the course of action that you are advocating. Although you are restricted to a single page of text to present your recommendation, you may attach additional pages as exhibits. For example, it would be appropriate to include details of any quantitative or financial analysis as an exhibit. However, you should make sure that any exhibits are well documented, and you should certainly not include an exhibit that does not merit specific reference in the text of your executive summary.

STRUCTURE

Although executive summaries can be written in different forms, it is important that you open with a statement that sets the tone and context for the recommendation that you will be presenting and captures the strategic relevance of the problem at hand.

Following the opening statement, there are two main approaches that can be adopted. The first is to lead off with the recommendation, and then provide the rationale for it. Alternatively, one can adopt a more linear approach by presenting the analysis that leads logically to the recommendation. Depending upon the situation, either of these two approaches can be effective.

As you write your executive summary, you may want to consider the following:

- The recommendation should be sufficiently operationally specific that it can be acted upon. Avoid wishy-washy phrases like, "They should consider..."; "They might want to..."; etc.
- Explain why you have rejected any reasonable alternatives to the course of action that you are advocating.
- Recognize any significant risks that might be associated with the course of action that you are recommending and suggest how they might be mitigated.
- To the extent that it is possible, quantify the benefits / costs associated with your recommendation. Details of any quantitative analysis can be attached (and appropriately referenced) as exhibits.

When writing an executive summary it is important to focus on important data, conclusions, and recommendations. Avoid including excessive background and detail. One approach developing your executive summary is to imagine that you need to present your recommendation to the CEO of your company while you are with her on an elevator. You need to capture the significance of the issue and make a logical, compelling case for your recommendation in a very short amount of time. Therefore, you cannot afford to waste time on minor points or on summarizing information that is not directly relevant for justifying your recommendation.

The following example shows how an executive summary can be structured and written. Although a right format is important, to provide concise while insightful summary, analysis and recommendation is crucial.

EXECUTIVE SUMMARY

Introduction: BMW faces a threat from the Japanese entry into the high end segment of the automobile market. Although BMW's share has not yet been affected, the threat is real, especially due to the lower prices, better quality and shorter lead times for new product introductions by the Japanese. It takes BMW six years to launch a new product, but the Japanese can do it in four. This difference is due to the fact that the Japanese introduce incremental changes frequently, while BMW made big changes infrequently. It has been proposed that BMW adopt a prototyping system more like that of the Japanese, by requiring design decisions to be locked in 12 months prior to each prototype in order to allow pre-production grade tooling to be used in the construction of each set of prototypes.

Analysis: The major advantage of BMW's current prototyping approach is that it affords maximum flexibility in the design process; i.e., BMW can make changes relatively late in the design cycle. Not only does this allow them to respond to the changing tastes of the market, it also allows them to incorporate technological breakthroughs into their products, enhancing their reputation as a technological leader.

Advantages of proposed approach:

- Improved product quality at launch.
- Using actual materials bought from suppliers will lead to a more accurate prototype testing.
- Use of pre-production tools enables BMW to discover tooling or parts' problems earlier in the product development cycle. Also by procuring parts from suppliers at the prototype stage, any incompatibility issues with parts can be identified earlier.
- Using plant workers for the final prototype more closely approximates the actual assembly line.
- The new approach would speed up the ramp-up and pilot processes due to production problems being identified earlier, and it will allow them time for fine tuning.
- Lower warranty expenses due to improved quality of products at launch.

Disadvantages of proposed approach:

- Higher tooling costs
- Loss of flexibility in design commitment for each prototype build cycle.

Recommendations: To adopt the new prototyping approach BMW will have to trade off flexibility and quality. While to make design changes later is important to keep up with changing consumer demands, the higher quality levels of the Japanese vehicles are a bigger threat. BMW can balance these issues by:

- For now, use the new approach for the cockpit design. The cockpit seems to be the area where design and manufacturing quality matter the most, and it would benefit from the new approach.
- However, in general they should adopt this approach only in the last one or two batches of the prototype development cycle. This would minimize the investment needed in pre-production tools and still offer them enough opportunities to identify problems before the pilot stage.
- They should assess each of the 30 major subsystems regarding the relative importance of design flexibility versus conformance quality at launch. The new approach should be used only for those subsystems in which conformance quality is judged to be more important than design flexibility.

Although there is incremental investment required for the new prototyping approach, the overall savings from all 3 stages (Prototyping, Pilot and Ramp-up) will more than justify these investments. (Attachments skipped.)

HONOR CODE:

The McCombs School of Business has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the BBA Program's Statement on Scholastic Dishonesty at <http://my.mcombs.utexas.edu/BBA/Code-of-Ethics>. By teaching this course, I have agreed to observe all faculty responsibilities described there. By enrolling in this class, you have agreed to observe all student responsibilities described there. If the application of the Statement on Scholastic Dishonesty to this class or its assignments is unclear in any way, it is your responsibility to ask me for clarification. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since dishonesty harms the individual, all students, the integrity of the University, and the value of our academic brand, policies on scholastic dishonesty will be strictly enforced. You should refer to the Student Judicial Services website at <http://deanofstudents.utexas.edu/sjs/> to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

Please do not use any materials (packet of overheads, homeworks, course notes, handouts, exams, homework solutions, case summaries) from previous semesters or from other sections of the course being offered in this semester unless the same has been made available by me to every one of your fellow students in this class. If the application of the Honor System to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification.

MCCOMBS CLASSROOM PROFESSIONALISM POLICY:

The highest professional standards are expected of members of the McCombs community. The collective class reputation and the value of the McCombs experience hinges on this.

Faculty are expected to be professional and prepared to deliver value for each and every class session. Students are expected to be professional in all respects. Classroom expectations of students include:

- Students will arrive on time.
- Students will be fully prepared for each class.
- Students will attend the class section to which they are registered.
- Students will respect the views and opinions of their colleagues. Disagreement and debate are encouraged. Intolerance for the views of others is unacceptable.
- Phones and wireless devices are turned off unless otherwise instructed by the professor.

COURSE WEBSITES & STUDENT PRIVACY:

Password-protected class sites will be available for all accredited courses taught at The University. Syllabi, handouts, assignments and other resources are types of information that may be available

within these sites. Site activities could include exchanging emails, engaging in class discussions and chats, and exchanging files. In addition, class e-mail rosters will be a component of the sites. Students who do not want their names included in these electronic class rosters must restrict their directory information in the Office of the Registrar, Main Building, Rm 1. For information on restricting directory information see:

<http://www.utexas.edu/student/registrar/catalogs/gi02-03/app/appc09.html>.

ACADEMIC ACCOMMODATIONS:

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 512-471-6259, <http://diversity.utexas.edu/disability/>. Additionally, accommodation for observance of religious holidays is also possible. Following UT Austin policy, please notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, a test, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

HARASSMENT REPORTING REQUIREMENTS:

Senate Bill 212 (SB 212), which goes into effect as of January 1, 2020, is a Texas State Law that requires all employees (both faculty and staff) at a public or private post-secondary institution to promptly report any knowledge of any incidents of sexual assault, sexual harassment, dating violence, or stalking "committed by or against a person who was a student enrolled at or an employee of the institution at the time of the incident". Please note that both the instructor and the TA for this class are mandatory reporters and MUST share with the Title IX office any information about sexual harassment/assault shared with us by a student whether in-person or as part of a journal or other class assignment. Note that a report to the Title IX office does not obligate a victim to take any action, but this type of information CANNOT be kept strictly confidential except when shared with designated confidential employees. A confidential employee is someone a student can go to and talk about a Title IX matter without triggering that employee to have to report the situation to have it automatically investigated. A list of confidential employees is available on the Title IX website.

CAMPUS SAFETY:

Please note the following recommendations regarding emergency evacuation, provided by the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety>:

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

- Students requiring assistance in evacuation should inform their instructor in writing during the first week of class.
- In the event of an evacuation, follow the instruction of faculty or class instructors.
- Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.
- Behavior Concerns Advice Line (BCAL): 512-232-5050, or <https://operations.utexas.edu/units/csas/bcal.php>.
- Further information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency."

REMOTE LEARNING:

1) Getting help with Zoom:

Students needing help with Zoom can refer to the [McCombs Student Instructional Resources Wiki](#). All Canvas webpages for all McCombs courses will have a link to the McCombs Student Instructional Resource Wiki on the bottom left corner, so students can access it from their Canvas course pages.

2) Preferred method of joining a class or office hours in Zoom:

The preferred method of joining a class or office hours is through video on Canvas. Students must log into their Canvas course site and click on Zoom in the left toolbar to locate links to join the class in Zoom.

3) Zoom etiquette:

Because there will be so many people on these Zoom meetings, here are some best practices for making sure we are working together to create an efficient, effective, respectful, and ultimately enjoyable classroom!

- Mute yourself unless you are speaking. This will cut down on background noise and limit any distractions.
- Be mindful of your surroundings when on camera. We want to make sure we avoid as much distraction as possible.
- Please add a professional photo of yourself for your Zoom profile picture. This photo will be visible during class sessions.
- Turn your camera off if you are leaving the meeting temporarily and use the away feedback icon.
- Try to keep questions and comments brief. With a large classroom, there are many people to get through and many questions to move through. Try to limit remarks as much as possible.
- Minimize repetition. If you are hearing repeat information, use the go faster icon.
- If the video or audio is choppy, try turning off your video.
- Please try to use the most reliable WIFI you can access.

4) Class recording privacy:

Class recordings are reserved only for students in this class for educational purposes. The recordings should not be shared outside the class in any form. Violation of this restriction could lead to Student Misconduct proceedings.

5) Help from Student Emergency Services:

Students who need help getting access to technology in order to do online instruction should fill out the [Student Emergency Services form](#). For general inquiries, please contact [Student Emergency Services](#).

Sharing of Course Materials is Prohibited:

No materials used in this class, including, but not limited to, lecture hand-outs, videos, assessments (quizzes, exams, papers, projects, homework assignments), in-class materials, review sheets, and additional problem sets, may be shared online or with anyone outside of the class unless you have my explicit, written permission. Unauthorized sharing of materials promotes cheating. It is a violation of the University's Student Honor Code and an act of academic dishonesty. I am well aware of the sites used for sharing materials, and any materials found online that are associated with you, or any suspected unauthorized sharing of materials, will be reported to Student Conduct and Academic Integrity in the Office of the Dean of Students. These reports can result in sanctions, including failure in the course.

Class Recordings:

Class recordings are reserved only for students in this class for educational purposes and are protected under FERPA. The recordings should not be shared outside the class in any form. Violation of this restriction by a student could lead to Student Misconduct proceedings. Guidance on public access to class recordings can be found [here](#).