

## OM386: SUPPLY CHAIN MANAGEMENT

**SPRING**, 2013

**Professor** Professor Stephen M. Gilbert

Office CBA 3.424

Office Hours T-TH 10:30-11:30 **Phone** 512-471-9456

steve.gilbert@mccombs.utexas.edu E-Mail

UTC 1.146 Classroom

**Class Meeting Times** T-TH 3:30 - 5:00 **Course Web Page** via Blackboard **Teaching Assistants** name (email)

## **Course Objectives**

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 finance (investments in productive assets), 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.

Although the development of analytical tools is not the primary objective of the course, students should be comfortable with quantitative analysis. By the end of the course, you should have enhanced your ability to use analytical tools and conceptual frameworks to make decisions in supply chain contexts as well as a better understanding of the major strategic issues and trade-offs that arise in supply chain management.

## Leadership and this Course

The Texas MBA program is designed to develop influential business leaders. The MBA Program has identified four fundamental and broad pillars of leadership: knowledge and understanding, communication and collaboration, responsibility and integrity, and a worldview of business and society.

In this course, you will enhance your knowledge and understanding of supply chain issues and appropriate approaches to analyzing and responding to them. Through class discussion, informal study groups, and formal group projects (written and oral) you will enhance your communication and collaboration skills. Many of the cases that we discuss involve global supply chains, and this should enhance your worldview of business and society. In addition, several of the cases and one of the experiential learning exercises provide opportunities to discuss the role of responsibility and integrity in supply chain management.

#### **Materials**

Required: (VM) Van Mieghem, Jan, Operations Strategy: Principles and Practice, Dynamic Ideas,

Charlestown, MA, 2008.

Coursepack – available from the copy-center.

Optional: Chopra, Sunil and Peter Meindl, Supply Chain Management, Fifth Edition, Person Education, Inc.,

Upper Saddle River, NJ, 2012. (Publication date: February 12. Older editions are fine.)

## **Course Requirements and Grading**

The performance criteria are weighted as follows:

Exam	30%
Individual Homework	20%
Executive Summaries	20%
Supply Chain Games	20%
Class Participation	<u>10%</u>
Total	100%

The distribution of grades will be no less generous than the suggested distribution for MBA core courses: A(4.0) 25%, A- (3.67) 20%, B+ (3.33) 15%, B (3.00) 35%, B- or below (2.67) 5 %.

#### **Description of Requirements**

**Exam**: There will be one exam scheduled outside of regular class hours.

*Individual Homework*: During the semester, there will be 5-7 individual homework assignments. Each one serves 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. Some credit is always awarded for evidence of effort. Please note that, although I do not accept individual homework after the beginning of class on the day that it is due, I do permit everyone to drop their lowest individual homework grade.

**Executive Summaries**: For two of the cases, I will assign an executive summary (ES), in which 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.

For each ES, I 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 of list of answers to these questions. Instead, it should be a logical and persuasive recommendation for action. A brief description of an ES and an example 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 first executive summary will be prepared in groups, but the second (last) one will be done individually.

**Supply Chain Games:** Two of the assignments involve a computer simulation of a supply chain, both of which will be done in groups of 2-4 students. For each of these assignments you will manage a supply chain over two years of operation that the computer simulates in one week of real time. Specific instructions for the exercise will be provided. Grades will be based on both your write-up and your performance in the game.

**Grading:** Individual homework and executive summaries will be graded on scales of 0-4 and 0-10 respectively. Please turn in a **hard copy** of each assignment prior to the beginning of the class session listed on the schedule. Solutions to the homework assignments will be distributed in class or on the web-page. Please study each solution carefully even if you received full credit on the assignment. For the executive summaries, I will try to provide hard copies of exemplary papers. Assignments that are submitted late will not be accepted.

## McCombs Classroom Professionalism Policy

The highest professional standards are expected of all members of the McCombs community. The collective class reputation and the value of the Texas MBA 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. The Texas MBA classroom experience is enhanced when:

• **Students arrive on time.** On time arrival ensures that classes can start and finish as scheduled. On time arrival shows respect for both peers and faculty and enhances learning by reducing avoidable distractions.

- Students display their name cards. This permits fellow students and faculty to learn names, enhancing opportunities for community building and evaluation of in-class contributions.
- Students minimize unscheduled personal breaks. The learning environment improves when disruptions
  are limited.
- Students are fully prepared for each class. Much of the learning in the Texas MBA program takes place during classroom discussions. When students are not prepared they cannot contribute to the overall learning process. This affects not only the individual, but their peers who count on them, as well.
- Students respect the views and opinions of their colleagues. Disagreement and debate are encouraged. Intolerance for the views of others is unacceptable.
- Laptops are closed and put away (unless an exception has been announced for a particular class session). When students are surfing the web, responding to e-mail, instant messaging each other, and otherwise not devoting their full attention to the topic at hand they are doing themselves and their peers a major disservice. Those around them face additional distraction. Fellow students cannot benefit from the insights of the students who are not engaged. Faculty office hours are spent going over class material with students who chose not to pay attention, rather than truly adding value by helping students who want a better understanding of the material or want to explore the issues in more depth. Students with real needs may not be able to obtain adequate help if faculty time is spent repeating what was said in class. There are often cases where learning is enhanced by the use of laptops in class. Faculty will let you know when it is appropriate to use them. In such cases, professional behavior is exhibited when misuse does not take place.
- Phones and wireless devices are turned off. We've all heard the annoying ringing in the middle of a
  meeting. Not only is it not professional, it cuts off the flow of discussion when the search for the offender
  begins. When a true need to communicate with someone outside of class exists (e.g., for some medical
  need) please inform the professor prior to class.

Remember that your professionalism and activity in class elevates the quality of the experience for everyone.

#### **Academic Dishonesty**

I have no tolerance for acts of academic dishonesty. Such acts damage the reputation of the school and the degree and demean the honest efforts of the majority of students. The minimum penalty for an act of academic dishonesty will be a zero for that assignment or exam.

The responsibilities for both students and faculty with regard to the Honor System are described on <a href="http://mba.mccombs.utexas.edu/students/academics/honor/index.asp">http://mba.mccombs.utexas.edu/students/academics/honor/index.asp</a> and on the final pages of this syllabus. As the instructor for this course, I agree to observe all the faculty responsibilities described therein. During Orientation, you signed the Honor Code Pledge. In doing so, you agreed to observe all of the student responsibilities of the Honor Code. 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.

Although this course will involve several assignments that are specifically intended to be completed in groups, the individual homework assignments, the second executive summary, the quizzes, and the exam are all individual efforts. My expectation is that the quizzes and the exam will be completed entirely on your own. However, for the individual homework assignments and the individual executive summary, my standard is a little more nuanced. For these assignments, I do not object to your discussing the assignment with other students, so long as the paper that you submit was written on your own. Note that submission of exact copies would not be consistent with this. This policy is intended to take advantage of the fact that many students learn best when they are interacting and discussing ideas with colleagues.

#### **Students with Disabilities**

Upon request, the University of Texas at Austin provides appropriate academic accommodations for qualified students with disabilities. Services for Students with Disabilities (SSD) is housed in the Office of the Dean of Students, located on the fourth floor of the Student Services Building. Information on how to register, downloadable forms, including guidelines for documentation, accommodation request letters, and releases of information are available online at http://deanofstudents.utexas.edu/ssd/index.php. Please do not hesitate to contact SSD at (512) 471-6259, VP: (512) 232-2937 or via e-mail if you have any questions.

## Schedule

No.	Day	Date	Торіс	Case / Other Info.	Assignments Due
1	Т	1/15	Intro to Supply Chain Management		
2	TH	1/17	Competitive Cost Analysis	American Connector	
3	Т	1/22	Capacity Sizing		
4	TH	1/24	Capacity Sizing		
5	Т	1/29	Optimization of the SC	Medical Technologies	IH#1
6	TH	1/31	Optimization of the SC		
7	Т	2/5	Optimization of the SC	Good Tire	IH#2
8	TH	2/7	Optimization of the SC		IH#3
9	Т	2/12	Drivers of Inventory and Inventory Policy		
10	TH	2/14	Sales and operations Planning	Cross River SC Game1 begins	
11	Т	2/19	Drivers of Inventory and Inventory Policy		
12	TH	2/21	Capacity Types and Flexibility		
13	Т	2/26	Supply Chain Game		SC1 write-up
14	TH	2/28	Complementary Capacity - Oper. Hedging	Seagate	IH#4
15	T	3/5	Global Trips – No Class		
16	TH	3/7	Global Trips – No Class		
17	T	3/19	Capacity Location and Logistical Design		
18	TH	3/21	Capacity Location and Logistical Design	Dollar Tree Logistics	IH #5
19	T	3/26	Capacity Location and Logistical Design	China Mexico Dual Sourcing	
20	TH	3/28	Capacity Location and Logistical Design	China Mexico Dual Sourcing	ES#1
21	Т	4/2	Coordination and Incentives	Johnson Elevator	IH#6
22	TH	4/4	Coordination and incentives		
23	T	4/9	EXAM - 7:00-10:00 p.m., UTC 1.146		
24	TH	4/11	Prepare for SC 2	SC Game2 begins	
25	Т	4/16	Social Responsibilities in SCs	Ikea in India	
26	TH	4/18	Guest Speaker –		
27	T	4/23	Supply chain Game		SC2 write-up
28	TH	4/25	The Outsourcing Game		
29	Т	4/30	The Outsourcing Game		
30	TH	5/2	Final Case	Hewlett-Packard UPS	ES#2

#### OM 386: DETAILED COURSE OUTLINE

SESSION 1 (T, Jan. 15)

Reading

**Introduction to Supply Chain Management** 

Van Mieghem (VM): Chapters 1 & 2

SESSION 2 (TH, Jan. 17)

Case

**Competitive Cost Analysis** 

American Connector

SESSION 3 (T, Jan. 22)

Reading

Capacity Sizing

VM Chapter 3, Appendix B: Newsvendor Review (as necessary)

SESSION 4 (TH, Jan. 24)

Reading

**Capacity Sizing** 

VM Chapter 3, Appendix B: Newsvendor Review (as necessary)

SESSION 5 (T, Jan. 29)

Reading:

**Optimization of the Supply Chain** 

Medical Technologies

Fundamentals of Optimization Models: Linear Programming (Read pp. 63 – 84, the remainder of the chapter is beyond the scope of this course but may be of interest to some students.)

IH#1

Homework Submitted

SESSION 6 (TH, Jan. 31)

Reading:

Optimization of the Supply Chain

Good Tire

SESSION 7 (T, Feb. 5)

Homework Submitted

**Optimization of the Supply Chain** 

IH#2

SESSION 8 (TH, Feb. 7)

Homework Submitted

**Optimization of the Supply Chain** 

IH#3

SESSION 9 (T, Feb. 12)

**Drivers of Inventory and Inventory Policy** 

SESSION 10 (TH, Feb. 14)

Sales and Operations Planning Cross River Products

SC Game 1 begins

**SESSION 11 (T, Feb. 19)** 

**Drivers of Inventory and Inventory Policy** 

SESSION 12 (TH, Feb. 21)

Capacity Types and Flexibility

VM. Chapter 5

Principles on the Benefits of Manufacturing Process Flexibility

**SESSION 13 (T, Feb. 26)** 

**Group Submission** 

**Supply Chain Game** 

SC #1 Assignment

SESSION 14 (TH, Feb. 28) Case:

Case:

**Complementary Capacity - Operational Hedging** 

Seagate, found in VM, pages 405-414

IH#4

SESSION 15 (T, Mar. 5)

Homework Submitted

**Global Trip** 

SESSION 16 (TH, Mar. 7)

**Global Trip** 

**SESSION 17 (T, Mar. 19)** 

Capacity Location and Logistical Design

VM, Chapter 6

Note on Logistics in the Information Age

SESSION 18 (TH, Mar. 21)

Case

Reading

**Capacity Location and Logistical Design** 

**Dollar Tree Logistics** 

IH #5

Homework Submitted

**SESSION 19 (T, Mar. 26)** 

Case

**Capacity Location and Logistical Design** 

China Mexico Dual Sourcing, in-class exercise

SESSION 20 (TH, Mar. 28)

Coordination Issues with Third Party Logistics Providers China Mexico Dual Sourcing

Case:

Group ES Submitted

ES #1

IH#6

SESSION 21 (T, Apr. 2)

**Coordination and Incentives** 

Case

Homework Submitted

Pricing to Coordinate the Supply Chain

SESSION 23 (T, April 9)

SESSION 22 (TH, Apr. 4)

Exam: 6:30 - 9:30 p.m. in UTC1.146

Confirmed 18 December 2012

**SESSION 24 (TH, April 11)** 

**Preparation for Supply Chain Game 2** 

SC Game 2 begins

Johnson Elevator

SESSION 25 (T, April 16)

Social Responsibility in Supplier Management

Ikea's Global Sourcing Challenge

SESSION 26 (TH, April 18)

**Guest Speaker – Ray Archer** 

SESSION 26 (T, April 23) Group Submission **Global Supply Chain Game De-brief** 

SC #2 Assignment

SESSION 28 (TH, April 25)

**The Outsourcing Game** 

Read

Case:

Pre-read: Decision Making in an Outsourced Supply Chain

SESSION 29 (T, May 30)

**The Outsourcing Game** 

Session 30 (TH, May 2)

Final Case

Case

Hewlett-Packard UPS

Individual ES Submitted

ES #2

#### 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. My 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. Avoid starting off with a bland summary of the case. Instead, try to begin telling a story that leads to your recommendation by emphasizing the facts that are most relevant. (See the example on the following page.)

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 rational 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 that are specific to the case. Avoid including excessive background and detail that are not pertinent to the recommendation, and avoid making generic recommendations that are not specifically actionable, e.g. "they should improve their relationships with suppliers". One approach to 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.

#### Example

#### **EXECUTIVE SUMMARY**

Introduction: BMW and other luxury car manufacturers face a threat from the Japanese entry into the high end segment of the automobile market. Although BMW's share has not yet been affected, it soon will be if BMW fails to respond to the lower prices, better quality and shorter lead times for new product introductions of the Japanese OEMs. While BMW needs to refine its design process to be able to introduce new models more frequently, it could be a mistake to mimic the approach that is taken by the Japanese OEMs. For at least portions of the vehicle design, it is important that BMW retain some of its flexibility to make last minute design changes.

Analysis: The Japanese OEM's are able to cut two years off of BMW's development time for a new model, largely because they focus on incremental improvements and require design decisions to be locked in 12 months prior to each prototype to ensure high quality at launch. BMW's current prototyping approach affords maximum flexibility in the design process because it allows major design 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. However, this unbounded flexibility also prevents BMW from being able to refine production grade tooling in order to have a high level of conformance quality at product launch. This flexibility can be valuable, e.g., to incorporate late design changes in parts of the vehicle where technology breakthroughs are anticipated, but it is not required throughout the vehicle.

BMW needs to find the right balance between retaining the flexibility where it truly has value, and using an approach that is closer to that of the Japanese OEMs elsewhere. In particular, they should identify major subsystems of the vehicle for which they can adopt the following practices:

- Use actual materials bought from actual suppliers..
- Use production grade tooling earlier in the prototype process to discover tooling or parts' problems earlier.
- Use parts from the eventual suppliers earlier in the prototype process to identify incompatibility issues earlier.
- Use regular plant workers for the final prototype to more closely approximate the actual assembly line operations.

The new approach will speed up the ramp-up and pilot processes due to production problems being identified earlier, and it will allow them time for fine tuning the process before product launch.

**Recommendations:** In adopting the new prototyping approach BMW will have to trade off flexibility and vehicle quality. While the ability 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 both these issues by doing the following:

- For now, use the new approach for the cockpit design. Since the cockpit seems to be the area where design and manufacturing quality matter the most, it would benefit from the new approach. They should use this opportunity to evaluate the costs and benefit of the new approach.
- However, in general they should adopt this approach only in the last one or two batches of the prototype development cycle rather than adopting it from the first batch of prototypes. This would minimize the investment needed in preproduction tools and still offer 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.

## **Honor Code Purpose**

Academic honor, trust and integrity are fundamental to The University of Texas at Austin McCombs School of Business community. They contribute directly to the quality of your education and reach far beyond the campus to your overall standing within the business community. The University of Texas at Austin McCombs School of Business Honor System promotes academic honor, trust and integrity throughout the Graduate School of Business. The Honor System relies upon The University of Texas Student Standards of Conduct (Chapter 11 of the Institutional Rules on Student Service and Activities) for enforcement, but promotes ideals that are higher than merely enforceable standards. Every student is responsible for understanding and abiding by the provisions of the Honor System and the University of Texas Student Standards of Conduct. The University expects all students to obey the law, show respect for other members of the university community, perform contractual obligations, maintain absolute integrity and the highest standard of individual honor in scholastic work, and observe the highest standards of conduct. Ignorance of the Honor System or The University of Texas Student Standards of Conduct is not an acceptable excuse for violations under any circumstances.

The effectiveness of the Honor System results solely from the wholehearted and uncompromising support of each member of the Graduate School of Business community. Each member must abide by the Honor System and must be intolerant of any violations. The system is only as effective as you make it.

#### Faculty Involvement in the Honor System

The University of Texas at Austin McCombs School of Business Faculty's commitment to the Honor System is critical to its success. It is imperative that faculty make their expectations clear to all students. They must also respond to accusations of cheating or other misconduct by students in a timely, discrete and fair manner. We urge faculty members to promote awareness of the importance of integrity through in-class discussions and assignments throughout the semester.

## **Expectations Under the Honor System**

#### **Standards**

If a student is uncertain about the standards of conduct in a particular setting, he or she should ask the relevant faculty member for clarification to ensure his or her conduct falls within the expected scope of honor, trust and integrity as promoted by the Honor System. This applies to all tests, papers and group and individual work. Questions about appropriate behavior during the job search should be addressed to a professional member of the Career Services Office. Below are some of the specific examples of violations of the Honor System.

#### Lying

Lying is any deliberate attempt to deceive another by stating an untruth, or by any direct form of communication to include the telling of a partial truth. Lying includes the use or omission of any information with the intent to deceive or mislead. Examples of lying include, but are not limited to, providing a false excuse for why a test was missed or presenting false information to a recruiter.

#### Stealing

Stealing is wrongfully taking, obtaining, withholding, defacing or destroying any person's money, personal property, article or service, under any circumstances. Examples of stealing include, but are not limited to, removing course material from the library or hiding it from others, removing material from another person's mail folder, securing for one's self unattended items such as calculators, books, book bags or other personal property. Another form of stealing is the duplication of copyrighted material beyond the reasonable bounds of "fair use." Defacing (e.g., "marking up" or highlighting) library books is also considered stealing, because, through a willful act, the value of another's property is decreased. (See the appendix for a detailed explanation of "fair use.")

#### Cheating

Cheating is wrongfully and unfairly acting out of self-interest for personal gain by seeking or accepting an unauthorized advantage over one's peers. Examples include, but are not limited to, obtaining questions or answers to tests or quizzes, and getting assistance on case write-ups or other projects beyond what is authorized by the assigning instructor. It is also cheating to accept the benefit(s) of another person's theft(s) even if not actively sought. For instance, if one continues to be attentive to an overhead conversation about a test or case write-up even if initial exposure to such information was accidental and beyond the control of the student in question, one is also cheating. If a student overhears a conversation or any information that any faculty member might reasonably wish to withhold from the student, the student should inform the faculty member(s) of the information and circumstance under which it was overheard.

#### Actions Required for Responding to Suspected and Known Violations

As stated, everyone must abide by the Honor System and be intolerant of violations. If you suspect a violation has occurred, you should first speak to the suspected violator in an attempt to determine if an infraction has taken place. If, after doing so, you still believe that a violation has occurred, you must tell the suspected violator that he or she must report himself or herself to the course professor or Associate Dean of the Graduate School of Business. If the individual fails to report himself or herself within 48 hours, it then becomes your obligation to report the infraction to the course professor or the Associate Dean of the Graduate School of Business. Remember that although you are not required by regulation to take any action, our Honor System is only as effective as you make it. If you remain silent when you suspect or know of a violation, you are approving of such dishonorable conduct as the community standard. You are thereby precipitating a repetition of such violations.

#### The Honor Pledge

The University of Texas at Austin McCombs School of Business requires each enrolled student to adopt the Honor System. The Honor Pledge best describes the conduct promoted by the Honor System. It is as follows:

"I affirm that I belong to the honorable community of The University of Texas at Austin Graduate School of Business. I will not lie, cheat or steal, nor will I tolerate those who do."

"I pledge my full support to the Honor System. I agree to be bound at all times by the Honor System and understand that any violation may result in my dismissal from the Graduate School of Business."

The following pages provide specific guidance about the Standard of Academic Integrity at the University of Texas at Austin. Please read it carefully and feel free to ask me any questions you might have.

## Excerpts from the University of Texas at Austin Office of the Dean of Students website (http://deanofstudents.utexas.edu/sis/acint\_student.php)

## The Standard of Academic Integrity

A fundamental principle for any educational institution, academic integrity is highly valued and seriously regarded at The University of Texas at Austin, as emphasized in the standards of conduct. More specifically, you and other students are expected to "maintain absolute integrity and a high standard of individual honor in scholastic work" undertaken at the University (Sec. 11-801, Institutional Rules on Student Services and Activities). This is a very basic expectation that is further reinforced by the University's Honor Code. At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to:

- acknowledge the contributions of other sources to your scholastic efforts;
- complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them;
- · follow instructions for assignments and exams, and observe the standards of your academic discipline; and
- avoid engaging in any form of academic dishonesty on behalf of yourself or another student.

For the official policies on academic integrity and scholastic dishonesty, please refer to Chapter 11 of the Institutional Rules on Student Services and Activities.

## What is Scholastic Dishonesty?

In promoting a high standard of academic integrity, the University broadly defines scholastic dishonesty—basically, all conduct that violates this standard, including *any act designed to give an unfair or undeserved academic advantage*, such as:

- Cheating
- Plagiarism
- Unauthorized Collaboration
- Collusion
- Falsifying Academic Records
- Misrepresenting Facts (e.g., providing false information to postpone an exam, obtain an extended deadline for an assignment, or even gain an unearned financial benefit)
- Any other acts (or attempted acts) that violate the basic standard of academic integrity (e.g., multiple submissions—submitting essentially the same written assignment for two courses without authorization to do so)

Several types of scholastic dishonesty—<u>unauthorized collaboration</u>, <u>plagiarism</u>, and <u>multiple submissions</u>—are discussed in more detail on this Web site to correct common misperceptions about these particular offenses and suggest ways to avoid committing them.

For the University's official definition of scholastic dishonesty, see <u>Section 11-802</u>, *Institutional Rules on Student Services and Activities*.

## **Unauthorized Collaboration**

If you work with another person on an assignment for credit without the instructor's permission to do so, you are engaging in unauthorized collaboration.

- This common form of academic dishonesty can occur with all types of scholastic work—papers, homework, tests
  (take-home or in-class), lab reports, computer programming projects, or any other assignments to be submitted for
  credit.
- For the University's official definitions of unauthorized collaboration and the related offense of collusion, see Sections 11-802(c)(6) & 11-802(e), Institutional Rules on Student Services and Activities.

Some students mistakenly assume that they can work together on an assignment as long as the instructor has not expressly prohibited collaborative efforts.

Actually, students are expected to complete assignments independently unless the course instructor indicates
otherwise. So working together on assignments is not permitted unless the instructor specifically approves of any
such collaboration.

Unfortunately, students who engage in unauthorized collaboration tend to justify doing so through various rationalizations. For example, some argue that they contributed to the work, and others maintain that working together on an assignment "helped them learn better."

- The instructor—not the student—determines the purpose of a particular assignment and the acceptable method for
  completing it. Unless working together on an assignment has been specifically authorized, always assume it is not
  allowed.
- Many educators do value group assignments and other collaborative efforts, recognizing their potential for developing
  and enhancing specific learning skills. And course requirements in some classes do consist primarily of group
  assignments. But the expectation of individual work is the prevailing norm in many classes, consistent with the
  presumption of original work that remains a fundamental tenet of scholarship in the American educational system.

Some students incorrectly assume that the degree of any permissible collaboration is basically the same for all classes.

- The extent of any permissible collaboration can vary widely from one class to the next, even from one project to the next within the same class.
- Be sure to distinguish between collaboration that is authorized for a particular assignment and unauthorized
  collaboration that is undertaken for the sake of expedience or convenience to benefit you and/or another student. By
  failing to make this key distinction, you are much more likely to engage in unauthorized collaboration. To avoid any
  such outcome, always seek clarification from the instructor.

Unauthorized collaboration can also occur in conjunction with group projects.

How so? If the degree or type of collaboration exceeds the parameters expressly approved by the instructor. An
instructor may allow (or even expect) students to work together on one stage of a group project but require
independent work on other phases. Any such distinctions should be strictly observed.

Providing another student unauthorized assistance on an assignment is also a violation, even without the prospect of benefiting yourself.

- If an instructor did not authorize students to work together on a particular assignment *and* you help a student complete that assignment, you are providing unauthorized assistance and, in effect, facilitating an act of academic dishonesty. Equally important, you can be held accountable for doing so.
- For similar reasons, you should not allow another student access to your drafted or completed assignments unless
  the instructor has permitted those materials to be shared in that manner.

#### **Plagiarism**

Plagiarism is another serious violation of academic integrity. In simplest terms, this occurs if you represent as your own work any material that was obtained from another source, regardless how or where you acquired it.

- Plagiarism can occur with all types of media—scholarly or non-academic, published or unpublished—written
  publications, Internet sources, oral presentations, illustrations, computer code, scientific data or analyses, music, art,
  and other forms of expression. (See <a href="Section 11-802(d">Section 11-802(d</a>) of the Institutional Rules on Student Services and Activities for
  the University's official definition of plagiarism.)
- Borrowed material from written works can include entire papers, one or more paragraphs, single phrases, or any other
  excerpts from a variety of sources such as books, journal articles, magazines, downloaded Internet documents,
  purchased papers from commercial writing services, papers obtained from other students (including homework
  assignments), etc.
- As a general rule, the use of any borrowed material results in plagiarism if the original source is not properly
  acknowledged. So you can be held accountable for plagiarizing material in either a final submission of an assignment
  or a draft that is being submitted to an instructor for review, comments, and/or approval.

Using *verbatim* material (e.g., exact words) without proper attribution (or credit) constitutes the most blatant form of plagiarism. However, other types of material can be plagiarized as well, such as *ideas* drawn from an original source or even its *structure* (e.g., sentence construction or line of argument).

 Improper or insufficient paraphrasing often accounts for this type of plagiarism. (See additional information on paraphrasing.)

Plagiarism can be committed intentionally or unintentionally.

- Strictly speaking, any use of material from another source without proper attribution constitutes plagiarism, regardless why that occurred, and any such conduct violates accepted standards of academic integrity.
- Some students deliberately plagiarize, often rationalizing this misconduct with a variety of excuses: falling behind and succumbing to the pressures of meeting deadlines; feeling overworked and wishing to reduce their workloads; compensating for actual (or perceived) academic or language deficiencies; and/or justifying plagiarism on other grounds.
- But some students commit plagiarism without intending to do so, often stumbling into negligent plagiarism as a result
  of sloppy notetaking, insufficient paraphrasing, and/or ineffective proofreading. Those problems, however, neither
  justify nor excuse this breach of academic standards. By misunderstanding the meaning of plagiarism and/or failing to
  cite sources accurately, you are much more likely to commit this violation. Avoiding that outcome requires, at a
  minimum, a clear understanding of plagiarism and the appropriate techniques for scholarly attribution. (See related
  information on paraphrasing; notetaking and proofreading; and acknowledging and citing sources.)

By merely changing a few words or rearranging several words or sentences, you are *not* paraphrasing. Making minor revisions to borrowed text amounts to plagiarism.

 Even if properly cited, a "paraphrase" that is too similar to the original source's wording and/or structure is, in fact, plagiarized. (See additional information on <u>paraphrasing</u>.)

Remember, your instructors should be able to clearly identify which materials (e.g., words and ideas) are your own and which originated with other sources.

• That cannot be accomplished without proper attribution. You must give credit where it is due, acknowledging the sources of any borrowed passages, ideas, or other types of materials, and enclosing any verbatim excerpts with quotation marks (using block indentation for longer passages).

#### Plagiarism & Unauthorized Collaboration

Plagiarism and unauthorized collaboration are often committed jointly.

By submitting as your own work any unattributed material that you obtained from other sources (including the contributions of another student who assisted you in preparing a homework assignment), you have committed plagiarism. And if the instructor did not authorize students to work together on the assignment, you have also engaged in unauthorized collaboration. Both violations contribute to the same fundamental deception—representing material obtained from another source as your own work.

Group efforts that extend beyond the limits approved by an instructor frequently involve plagiarism in addition to unauthorized collaboration. For example, an instructor may allow students to work together while researching a subject, but require each student to write a separate report. If the students collaborate while writing their reports *and* then submit the products of those joint efforts as individual works, they are guilty of unauthorized collaboration as well as plagiarism. In other words, the students collaborated on the written assignment without authorization to do so, and also failed to acknowledge the other students' contributions to their own individual reports.

## **Multiple Submissions**

Submitting the same paper (or other type of assignment) for two courses without prior approval represents another form of academic dishonesty.

You may not submit a substantially similar paper or project for credit in two (or more) courses unless expressly authorized to do so by your instructor(s). (See Section 11-802(b) of the Institutional Rules on Student Services and Activities for the University's official definition of scholastic dishonesty.)

You may, however, re-work or supplement previous work on a topic with the instructor's approval.

Some students mistakenly assume that they are entitled to submit the same paper (or other assignment) for two (or more) classes simply because they authored the original work.

Unfortunately, students with this viewpoint tend to overlook the relevant ethical and academic issues, focusing instead on their own "authorship" of the original material and personal interest in receiving essentially double credit for a single effort.

Unauthorized multiple submissions are inherently deceptive. After all, an instructor reasonably assumes that any completed assignments being submitted for credit were actually prepared for that course. Mindful of that assumption, students who "recycle" their own papers from one course to another make an effort to convey that impression. For instance, a student may revise the original title page or imply through some other means that he or she wrote the paper for that particular course, sometimes to the extent of discussing a "proposed" paper topic with the instructor or presenting a "draft" of the paper before submitting the "recycled" work for credit.

The issue of plagiarism is also relevant. If, for example, you previously prepared a paper for one course and then submit it for credit in another course without citing the initial work, you are committing plagiarism—essentially "self-plagiarism"—the term used by some institutions. Recall the broad scope of <u>plagiarism</u>: all types of materials can be plagiarized, including unpublished works, even papers you previously wrote.

Another problem concerns the resulting "unfair academic advantage" that is specifically referenced in the University's definition of scholastic dishonesty. If you submit a paper for one course that you prepared and submitted for another class, you are simply better situated to devote more time and energy toward fulfilling other requirements for the subsequent course than would be available to classmates who are completing all course requirements during that semester. In effect, you would be gaining an unfair academic advantage, which constitutes academic dishonesty as it is defined on this campus.

Some students, of course, do recognize one or more of these ethical issues, but still refrain from citing their authorship of prior papers to avoid earning reduced (or zero) credit for the same works in other classes. That underlying motivation further illustrates the deceptive nature of unauthorized multiple submissions.

An additional issue concerns the problematic minimal efforts involved in "recycling" papers (or other prepared assignments). Exerting minimal effort basically undercuts the curricular objectives associated with a particular assignment and the course itself. Likewise, the practice of "recycling" papers subverts important learning goals for individual degree programs and higher education in general, such as the mastery of specific skills that students should acquire and develop in preparing written assignments. This demanding but necessary process is somewhat analogous to the required regimen of athletes, like the numerous laps and other repetitive training exercises that runners must successfully complete to prepare adequately for a marathon.

# Reading List for OM 386 Supply Chain Management, Unique No 04260 Professor Stephen M. Gilbert Spring 2013

- 1) "American Connector Company (A), HBS case 9-693-035.
- 2) Mathur, K. and D. Solow, "Medical Technologies", pp. 355-360 in *Management Science; The Art of Decision Making*, Prentice Hall, 1994.
- 3) Shapiro, Jeremy, "Chapter 3: Fundamentals of Optimization Models: Linear Programming," pp. 63-114 in *Modeling the Supply Chain*, Duxbury Press, 2001.
- 4) Mathur, K. and D. Solow, "The Warehouse Location Problem of Good Tire, Inc.", pp. 421-423 in *Management Science; The Art of Decision Making*, Prentice Hall, 1994.
- 5) Mathur, K. and D. Solow, "American Steel Company Case", pp. 86-88 in *Management Science; The Art of Decision Making*, Prentice Hall, 1994.
- 6) "Cross River Products", HBS case 9-676-086.
- 7) Jordan, W. and S. Graves, "Principles on the Benefits of Manufacturing Process Flexibility," *Management Science*, V. 41, N. 4, April 1995, pp. 577-594.
- 8) Kopczak, Laura, Hau Lee, and Jin Whang, "Note on Logistics in the Information Age", Case Study GS19, Stanford University, distributed via HBS Publishing.
- 9) "Dollar Tree Logistics," Darden Business Publishing, University of Virginia, UVA-OM-1180.
- 10) Gilbert, Stephen M., "Johnson Elevators," Case Study, The University of Texas at Austin.
- 11) "IKEA's Global Sourcing Challenge: Indian Rugs and Child Labor" (A), HBS case 9-906-414.
- 12) "Pre-Read: Decision-Making in an Outsourced Supply Chain," Emeraldwise, LLC. jason@emeraldwise.com.
- 13) "Hewlett-Packard Company: Network Printer Design for Universality", Stanford Global Supply Chain Management Forum Case Study. Contact: https://gsbapps.stanford.edu/cases/detail1.asp?Document\_ID=1311