

# **MIS 44062**

## **SUPPLY CHAIN MANAGEMENT**

### **Undergraduate Syllabus**

### **Fall 2014**

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**Course Title: SUPPLY CHAIN MANAGEMENT**

**Instructor: Dr. Ryan Pereira, Adjunct Professor of Operations Management**

**Office: Graduate Office, MIS, Kent State University**

**Office Hours: hours by appointment only, typically before or after class hrs**

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**Meeting times and place: Business Administration Bldg 00206, 5:30 – 8:15pm (Monday), CRN # 16128**

**NO CLASS SEPTEMBER 1 FOR HOLIDAY.**

#### **A. COURSE DESCRIPTION**

This course provides a broad exposure to strategic, planning, control, and design aspects of a supply chain management. Supply Chain Management (SCM), with typically accounts for 20-25% of the cost of goods sold, can impact the competitiveness of firms. Globalization and e-commerce has heightened the strategic importance of SCM even further. Measures of Supply chain performance and the incorporation of Lean Techniques will also be taught.

#### **B. COURSE OBJECTIVES**

- To create awareness of and establish the strategic importance of SCM and tie it to the strategy of the firm
- To be able to incorporate effective SCM strategies while developing a business plan
- To make students competent in making decisions related to multi-echelon inventory management. Such decisions take into account reality that the demands are uncertain and unknown at the time of planning,
- To make students competent in developing optimal transportation and routing decisions as well as an ability to design supply chain networks that operate optimally for given system requirements,
- To familiarize students with advanced features of Excel to develop advanced SCM decisions and carry out what-if analyses related to SCM and
- To provide the cutting edge knowledge in SCM with regards to sustainable/green supply chains, Lean, mass customization, etc

#### **C. RESOURCES/MATERIALS**

##### **Textbook:**

**Chopra, S., and Meindl, P., 2010. *Supply Chain Management: Strategy, Planning, and Operation*, 5<sup>th</sup> Ed, Prentice Hall.**

##### **Suggested supplemental journals:**

Harvard Business Review

MIT Sloan Management Review

IEEE Transaction in Engineering Management

Journal of Supply Chain Mgt.

International Journal of Operations and Production Management

Journal of Operations Management

### Suggested Software:

MS Word for written assignments, PowerPoint for presentations, and MS-Excel (Solver Function).

**Additional required readings** may be distributed in class and/or posted on Blackboard. Suggested additional readings include articles from current business publications that illustrate course topics in the context of real business organizations.

Students are required to have access to a computer with word processing software, spreadsheet software, and a printer. Class announcements and other communications will be through **Blackboard** to your **Kent State University e-mail account**. You should monitor both this account and the class website on a regular basis for course announcements.

### D. COURSE ASSIGNMENTS

The primary teaching/learning methodologies in this course include a combination of classroom lectures, discussions/activities, and case analyses. The case analyses will include written and/or oral presentations, as well as class discussion via an online format.

The learning process is a joint responsibility between the instructor and students. The instructor is responsible for providing and facilitating an environment in which each student can learn the course content through a variety of teaching methods such as lectures, exercises and opportunities to apply the concepts to real situations. Each student is also accountable and responsible for their learning. For example, the student is responsible for reading assignments **prior to class** and adequately preparing for each case discussion. Moreover, **students are responsible for material covered and assignments if absent**. During class, the instructor will pose questions to students that will require them to apply the material from the reading assignment due for that class. (Note: The student's ability to respond to the questions will have a direct bearing on the class participation grade.).

The course design allows the student to practice the common characteristics that businesses expect in their top employees. This course requires the application of "book learning" to solving real business problems. This is challenging and hard work. Where the design of this course is an intentional transition from concept to application, it is also a transition from the college environment to the world of business. Therefore, the course has a defined schedule with firm deadlines. **All assignments are due before the class starts on the day it is due (hand in to instructor).**

### SUGGESTED ASSESSMENT COMPONENTS AND GRADING SCALE

Your grade in this course will be determined by your performance on the exams and assignments described in the table below:

The relevant items and their weights are as follows:

Item:	<u>HW</u>	<u>Mid Term</u>	<u>Project</u>	<u>Final Exam</u>	<u>A&amp;CP</u>
Weight:	20%	20%	30%	20%	10%

There will be 2 HW assignments as shown in the class schedule. The final exam is not comprehensive. The class project will be done in a group (suggestion can made but final group composition decision is made by the

instructor and no individual assignments) and the PowerPoint slides and the final report will be turned in as shown in the class schedule. 10% of the points are given for attendance and active class participation.

Your final grade in the course will be assigned according to the following table and the instructor will “curve” if needed:

Overall Percentage	Final Grade
93% - 100%	A
90% - 92%	A-
87% - 89%	B+
82% - 86%	B
79% - 81%	B-
75% - 78%	C+
70% - 74%	C
60% - 69%	D
Below 60%	F

## **E. GENERAL UNIVERSITY POLICIES:**

### ***Academic Integrity:***

We will follow the University Policy on Academic Integrity. Academic honesty: Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get undeserved credit. In addition, it is considered to be cheating when one cooperates with another in any such misrepresentation. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. It is the University's policy that cheating or plagiarism result in receiving a failing grade for the work or course. Repeat offenses may result in dismissal from the University.

### ***Course Withdrawal:***

For Fall and Spring semesters, the course withdrawal deadline is always the Sunday following the 10<sup>th</sup> week of the semester.

### ***Students with disabilities:***

University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these accommodations through Student Accessibility Services (contact 330-672-3391 or visit <http://www.kent.edu/sas> for more information on registration procedures).

### ***Enrollment/official registration:***

Students have the responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools on FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until *[date will be provided by the Assistant Dean in advance]* to correct the error. If registration errors are not corrected by this date and you continue to attend and participate in classes for which you are not officially enrolled, you are

advised now that you **will not** receive a grade at the conclusion of the semester for any class in which you are not properly registered.

### ***Graduation Information:***

If you are eligible to graduate, it is your responsibility to apply for graduation before the set deadline (**May Graduation:** Apply before September 15<sup>th</sup>; **August Graduation:** Apply before December 15<sup>th</sup> **December Graduation:** Apply before March 15<sup>th</sup>) If you apply after the deadline you will be assessed a \$200 late fee. Please see your academic advisor as soon as possible if you are uncertain as to your progress toward graduation. To apply for graduation complete the following steps: Log onto your Flashline account (1) Click on the Student Tools tab (2) Look in the Graduation Planning Tool Box (3) Click on Application for Graduation If an error message appears, you must contact your advisor.

## **E. SCHEDULE OF TOPICS**

Session #	Date	Topic	Key Takeaway	Chpt	Item Due
1	8/25/14	Introduction : Strategy & Supply Chain	Relation of SCM to firm level Strategy	1,2	
no class	9/1/14	no class	no class	no class	no class
2	9/8/14	Supply Chain Drivers & Metrics	SCOR model	3	
3	9/15/14	Forecasting	BOM Development + 3 rules of forecasting	7	
4	9/22/14	Aggregate Plan	Solver + Workforce/inventory/capacity planning	8	HW#1
5	9/29/14	Optimal ordering - deterministic lead time & demand	EOQ + Complications	11	
6	10/6/14	Eqd contd. + IT + E-Commerce	ERP / MRP systems, RFID & the Internet	17	
7	10/13/14	Guest Lecture + REVIEW	Practical Considerations in SCM	n/a	Topics due for Projects
8	10/20/14	Mid term exam	Mid term exam	n/a	
9	10/27/14	Optimal ordering -Stochastic lead time & demand	Newsboy model (Pdt Availability & Rev Mgt)	12	
10	11/3/14	Optimal Policies for Stochastic Demand with Service Level Stipulation: Continuous and Periodic Review Systems	Product Availability	13	
11	11/10/14	Optimal Policies for Stochastic Demand with Service Level Stipulation: Continuous and Periodic Review Systems	Product Availability Contd.	13	HW#2
12	11/17/14	Sourcing+ Mass customization	Vendor Selection +Bullwhip + Postponement/design impact on SCM	14,4,5	
13	11/24/14	Sourcing+ Mass customization	Vendor Selection +Bullwhip + Postponement/design impact on SCM	15,10	
14	12/1/14	Lean / Sourcing + Sustainability	Impact of Lean & Six Sigma on SCM	18	
15	12/8/14	Project Presentation + REVIEW	Project Presentation + REVIEW	n/a	PPT & Paper
16	12/15/14	Final Exam	Final Exam	n/a	