Course Information

Course number - section: OPRE 6366 - 501; Course title - term: Supply Chain Management - Fall 2012

Professor and Teaching Assistant Contact Information

- Professor: Metin Çakanyıldırım, metin@utdallas.edu, SOM3.408.
  Lecture hours: 7-9:45 pm on W at SOM2.722 as of Aug 13; see UTDallas Course Lookup.
  Office hours: 5:00-6:00 pm on M and Tu at SOM3.408.
- Teaching Assistant: Osman Kazan, oxk031000@utdallas.edu, SOM3.419.
  Office hours: 5-7 pm on W at SOM3.419.

Course Pre-requisites and Related Courses

- Pre-requisites: OPRE 6302 and exposure to probability, or consent of the instructor.
  Knowledge of equation solving, derivatives and integrals of polynomials, expectation, variance, covariance, probability distributions. Familiarity with linear and integer programming formulations. Read MBA math review 1-2 under the “Supplements” section of the course web site.
- Math refresher: UTD has a math refresher course that can help you remember what you learnt in a calculus course. The math refresher should always be available online; to test whether you need this course, see http://som.utdallas.edu/somResources/eLearning/eLearningCurrent/math.php.
- Related courses:
  - OPRE 6368: Supply Chain Software by Prof. Gene Deluke in Summers.
  - OPRE 6370: Logistics and Distribution by Prof. Alp Muharremoglu.
  - OPRE 6371: Purchasing and Sourcing Management by Prof. Elena Katok.
  - OPRE 6335: Risk and Decision Analysis by Prof. Alain Bensoussan.
  - OPRE 6337: Information Enabled Supply Chains by Prof. Ozalp Ozer.
  - OPRE 6364: QC: Lean Six Sigma by Prof. Divakar Rajamani.
  - OPRE 6377: Demand and Revenue Management by Prof. Metin Çakanyıldırım in Falls.
  - OPRE 6366 Online: Supply Chain Management by Prof. Metin Çakanyıldırım in Springs.

Course Description - Objectives

This course explores the key issues associated with the design and management of industrial Supply Chains (SC). SC are concerned with the efficient integration of suppliers, factories, warehouses and stores so that products are distributed to customers in the right quantity and at the right time. One of the primary objectives of SC management is to minimize the total supply chain cost subject to various service requirements.

Students will be able to describe and explain fundamentals of SC and to derive and compute optimal policies/variables, performance measures such as costs/profits, and be aware of SC practices.

Required Textbooks and Materials

  Cathay Pacific and Obermeyer cases will be used as a class discussion tool and parts of it may be assigned as a homework. A case report will be written for the Cisco case.
- Linear/Integer Programming Notes: Students are expected to know how to formulate a linear/integer program. This subject is discussed in OPRE 6302. To refresh that discussion and see more formulation examples, students are advised to study the “Formulation”, “Transportation” (pp. 1-4) and “Location” course notes under the “Supplements” section of the course web site.
Suggested Course Material

- Textbooks for other Supply Chain Management cores:
  
  
  

- Supplementary books:
  
  
  
  
  
  
  

- See “SCM News and articles” under the “Supplements” section of the course web site.

Academic Integrity

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations of the Board of Regents of the University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the Course Syllabus Page 8, University’s Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972.883.6391). A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents’ Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

The faculty and administration of the School of Management expect from our students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. We want to establish a reputation for the honorable behavior of our graduates, which extends throughout their careers. Both your individual reputation and the school’s reputation matter to your success. The Judicial Affairs website lists examples of academic dishonesty: http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-Basicexamples.html.

Plagiarism on written assignments, especially from the web, from portions of papers for other classes, and from any other source is unacceptable. On written assignments, this course can use the resources of https://turnitin.com, which searches the web for plagiarized content and is over 90% effective.

During tests/quizzes, students in this section are not allowed to use any electronic devices, including iPads, iPhones, iPods, MP3 Players, earphones, radios, smart phones, cameras, multi-function timepieces or computers. When possible, students should sit in alternating seats, face forward at all times, and remove any clothing which might conceal eye movements, reflect images of another’s work. Exam proctors will monitor any communication/signaling between students by talking, whispering, making sounds or by using your hands, feet, other body movements, the test paper itself or your writing implement.
Assignments & Grading Policy

- Classes start on Aug 29. Students are advised to attend the classes.
- Grading
  - 10% for Class attendance and contribution to discussion.
  - 20% * Homeworks: There will be 4-5 homeworks. You may discuss homework problems with others, but you must write up by yourself with the full understanding of what you write. Students handing in identical assignments will be violating university regulations and will not receive credit! Late homeworks are not allowed unless you negotiate with the TA at least one day in advance. Your minimum homework grade will be dropped from consideration.
  - 25% * Quiz 1: Oct 17.
  - 20% * Case report: Nov 28.
  - 25% * Quiz 2: Dec 12.

- Overall grades will be curved by considering the current class average and previous class averages. Class averages over 2001-2010 are available on the course web page.
- Students who score less than 50% of the quiz grade must schedule an appointment with the instructor to discuss the possible ways to improve their performance.
- In this course, you will be given +/- minus grades. For example, you may get an A- or B+ grade. Students earn a grade in this course by mastering the course material. Students are not graded based on any type of need, amount of effort, family, personal circumstances, or their previous record in other courses.

UTD Resources

- Practice Lecture Series: We expect to host 1-2 lectures in class. They will be on Supply Chain Management Practice and be given by practitioners from Dallas area companies. The lectures are sponsored by C4ISN (Center for Intelligent Supply Networks) of SOM. For more info: http://mgmt.utdallas.edu/c4isn. Lecture dates will be announced later on the course web site.
- International Center for Decision and Risk Analysis (ICDRiA) performs interdisciplinary research and develops cooperation in risk management and decision-making by exchanging knowledge and experience among academia, industry, and public agencies. For more info: http://som.utdallas.edu/icdria.
- E-Access to Journals via UTD Library: Library electronically subscribes to many journals such as Harvard Business Review, Management Science, which are of interest. To access such a journal go to the UTD Library web page. Click on “E-Journals”. You will see an alphabetical list of journals. Click on “H” for “H”arvard Business Review. You will see that HBR is listed 15-20 from the top among the journals starting with letter “H”. Click on HBR link, you will be transfered to EBSCO web site which keeps the journal. To access from a non-UTD computer, you need UTD ID and password. Please respect the copyright laws.
- Career Center: The SOM Career Center (http://som.utdallas.edu/somResources/somCareerCenter) provides the following services: Career Counseling, Resume Assistance, Interview Assistance, Job Search Assistance, Career Resource Library, Web Resume Database, On Campus Recruiting, Active Internship Program.

Web Pages/Groups

SCM-MS degree unofficial web page is utdallas.edu/~metin/SCM/scm-ms.html. UTDS SCM Google Group web page is http://groups.google.com/group/utdscm. UTD SCM community communicates via a facebook personality named Utd Scm – become its friend to join the community. The course web page can be reached via utdallas.edu/~metin/teaching.html with the password ................................. .
TENTATIVE COURSE TIMELINE

1. Week - Aug29. INTRODUCTION
   (a) Ch1: Introduction.
   (b) Ch2: Achieving a Strategic Fit.

2. Week - Sep05.
   (a) Ch3: SCM Metrics/Drivers and Obstacles.
   (b) Case study: 7-Eleven Japan. Read pp. 66-72 of the textbook.

3. Week - Sep12. SC NETWORKS
   (a) Ch4: Distribution network in a SC.
   (b) Ch5: Network design.

4. Week - Sep19.
   (a) Ch6: Network design in an uncertain environment.
   (b) Ch13: Briefly Transportation — for more take OPRE 6370.

5. Week - Sep26. AGGREGATE PLANNING
   (a) Ch7: Briefly Forecasting — for more take OPRE 6377.
   (b) Ch8: Aggregate planning.

6. Week - Oct03.
   (a) Case study: Consumer Electronics (CE) Supply Chain. Read CE slides on the web page.
   (b) Ch9: Planning Supply and Demand.

7. Week - Oct10. SC INVENTORIES
   (a) Case study: Restructuring GM. Read GM’s Restructuring Plan on the web page.
   (b) Ch10: Inventory planning with known demand.


   (a) Ch11: Inventory planning with uncertain demand — for more take OPRE 6363.

    (a) Ch12: Product availability with uncertain demand.
    (b) Case study: Cathay Pacific Spare Parts. Prepare the case.

    (a) Ch14: Sourcing and contracts in SC — for more take OPRE 6371.

12. Week - Nov14. OTHER ISSUES
    (a) New product/model introduction.
    (b) Case study: Sport Obermeyer Ltd. Prepare the case.
    Week of Nov 19. Fall break and Thanksgiving holiday.

    (a) Ch17: Coordination in a SC. Value of and distortion of information: Bullwhip effect.

14. Week - Dec05.
    (a) Green Supply Chains.
    (b) Global Supply Chains.
    (c) Case study: Turkish Supply Chains. Read the associated document on the web page.

15. Week - Dec12: Quiz 2.

1Lecture Notes on Introduction, Networks, Aggregate Planning, Inventory and Contracts are on the course web site.