

**İSTANBUL KÜLTÜR UNIVERSITY**  
**DEPARTMENT OF INDUSTRIAL ENGINEERING**  
**IE 753 - SUPPLY CHAIN MANAGEMENT**  
**FALL 2010**

**Instructor:** Assist. Prof. Fadime Üney-Yüksektepe      **E-mail:** [f.yuksektepe@iku.edu.tr](mailto:f.yuksektepe@iku.edu.tr)

**Class hours:** Wednesday 15:00-17:45      **Room:** Amfi Z-A3

**URL address for the course material:** <http://sites.google.com/site/fadimeyuksektepe/ie753>  
<http://ie.iku.edu.tr/coursefileupload.asp?CourseID=578&PeriodID=44>

**Textbook:** Sunil Chopra and Peter Meindl, *Supply Chain Management: Strategy, Planning, and Operations*, 4<sup>th</sup> Edition, Pearson Prentice Hall, (2009).

**Course Description:** This course explores the key issues associated with the design and management of industrial Supply Chains (SCs). SCs 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.

**Course objectives:**

- To understand basic components of an integrated SCM system including types of products, functionality, and software solutions in the marketplace
- To possess a conceptual framework for understanding SCM
- To understand business process issues, implementation concerns, and change management issues related to SCM
- To solve cross-organizational, cross functional, cross unit, and global issues related to SCM systems.

**Evaluation**

|              |     |              |     |      |     |
|--------------|-----|--------------|-----|------|-----|
| Midterm Exam | 25% | Case Studies | 10% | Quiz | 15% |
| Project      | 15% | Final Exam   | 35% |      |     |

**Case Studies**

There will be some case studies which should be prepared in groups of 2 students.

**Project Guidelines**

Course project will be done in groups of 2 (It would be best to use the same groups that you are using for case studies.). All reports should be typed with a maximum of 10 pages (1.5 line-spacing, 11 or 12 pt. font size). There are two possible outcomes from a project report as follows:

- To analyse an existing logistics process and suggest any improvements those need to be made. Examples include a study of the distribution system and store deliveries at McDonalds, design of a logistics system for a manufacturer of refrigeration equipment, and an analysis of intermodal movement for a railroad.
- To identify a business opportunity (for example selling furniture on line) involving a product and build a business plan with a focus on supply chain issues. The goal is to identify the business opportunity and design the ideal supply chain for it. The project should include implementation details.

### COURSE OUTLINE

| Week | Date         | Topic  |
|------|--------------|--|
| 1    | September 29 | <b>Chapter 1 &amp; 2</b><br>Understanding the Supply Chain<br>Supply Chain Performance: Achieving Strategic Fit and Scope              |
| 2    | October 6    | <b>Chapter 3</b><br>Supply Chain Drivers and Obstacles<br><b>HW-Case Study:</b> Seven Eleven-Japan                                     |
| 3    | October 13   | <b>Chapter 4</b><br>Designing the Distribution Network in a Supply Chain   |
| 4    | October 20   | <b>Chapter 5</b><br>Network Design in the Supply Chain<br>Modelling in GAMS<br><b>HW-Case Study:</b> Managing Growth at Sportstuff.com |
| 5    | October 27   | <b>Chapter 6</b><br>Network Design in an Uncertain Environment<br><b>Project Proposal</b>  |
| 6    | November 3   | <b>Chapter 10</b><br>Managing Economies of Scale in the Supply Chain: Cycle Inventory<br><b>HW-Case Study:</b> Mintendo Game Girl      |
| 7    | November 10  | <b>Chapter 11</b><br>Managing Uncertainty in the Supply Chain: Safety Inventory  |
| 8    | November 17  | <b>KURBAN BAYRAMI</b>  |
| 9    | November 24  | <b>MIDTERM</b>   |
| 10   | December 1   | <b>Chapter 12</b><br>Determining Optimal Level of Product Availability   |
| 11   | December 8   | <b>Chapter 13</b><br>Sourcing Decisions in a Supply Chain  |
| 12   | December 15  | <b>Chapter 14 &amp; 15</b><br>Transportation in a Supply Chain<br>Pricing and Revenue Management in the Supply Chain                   |
| 13   | December 22  | <b>Chapter 16</b><br>Coordination in the Supply Chain  |
| 14   | January 29   | <b>BEER GAME</b>   |