



# Stevens Institute of Technology

## WebCampus.Stevens

### Syllabus

## **SYS640: System Supportability and Logistics**

### **Overview**

System Supportability and Logistics introduces students to a disciplined approach to providing efficient and effective system logistics support, so that a system is ensured of satisfying its business and operational readiness requirements. Particular focus will be placed on the concept of integrated supply chain and demand management, and the optimization and allocation of a system's logistic resources to ensure maximum availability at the lowest investment in logistics resources. The course introduces the latest thinking and technologies with regard to system training, documentation, inventory management and transportation.

### **Learning Goals**

After taking this course, the student will be able to:

- Integrate the knowledge acquired in this course.
- Integrate how the concepts and ideas in this course apply to actual business and/or government organizations.
- Apply the System Supportability and Logistics tools and techniques acquired in this course
- Apply and improve the students' ability to effectively work on teams.

### **Pedagogy**

This course combines lectures and readings to develop an understanding of the concepts and principles. Guest speakers/practitioners from the industry provide the students with real-life case studies. Lastly, the team project allows the student to integrate his/her knowledge in a team environment on broader topics.

### **Required Text(s)**

In order to complete the course, each student must read two books and submit a short term paper on each. The two books are:

- **Remaking the World: Adventures in Engineering** by Henry Petroski (Vintage Press, 1997)
- **21<sup>st</sup> Century Jet: The Making and Marketing of the Boeing 777** by Karl Sabbagh (Scribner 1996)

Both are readily available in paperback and quite reasonably priced. (Please note: from time to time, the publishers change the subtitles on paperbacks, so you might find an edition with a different date or a slightly different title. Any edition will be suitable -- no need to seek out the exact editions shown.)

### **Required Readings**

Required Readings will be assigned for each week and will be found on the course website.

## Course Outline

The course is divided into thirteen modules that are completed over the same number of weeks. Students are required to complete one team assignment and one homework each week, and two term papers. Beginning in the second week, they also required to participate in an online discussion of the work of the previous week. There is no discussion or a quiz following the assignment for the thirteenth week -- that assignment is to complete and post a final report on the team project .

## Assignments

Specific details on the assignments are found on the course website. The assignments and their weights are as shown below:

1. Class Participation (discussions, assessments, profile)	38%
2. Individual homeworks	12%
3. Two Individual Term Papers	20%
4. Final Team project/presentation	30%
<b>TOTAL</b>	<b>100%</b>

## Course Schedule

Week #	Topic
1	Introduction to System Supportability and Logistics
2	Introduction to Supply Chains
3	Deterministic and Probabilistic Models
4	Deterministic and Probabilistic Models
5	Inventory Management
6	Transportation
7	Warehousing
8	Documentation
9	Manpower, Training and Personnel
10	Supply Support
11	Spares Modeling
12	Spares Optimization
13	Team Project