

SYST 461/660 OR750  
SPRING 2010

**Instructor:** Lance Sherry

**Location:** On-line OR Engineering Building Room 1204 (1<sup>st</sup> floor = lowest level)

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**Office Hours:** Wed 4pm-6pm or by appointment

Textbooks:

1. The Global Airline Industry (Belobaba, Odoni, and Barnhart; 2009) AIAA
2. Terminal Chaos (Donohue, Shaver; 2008) AIAA

Review:

Chap 8            Airline Flight Operations

Chap 12          Airports

Chap 13          Air Traffic Control

*Schedule subject to change*

<b>Date (Week)</b>	<b>Topic</b>	<b>Material</b>	<b>Homework</b>	
Jan 25 (1)	Overview Airline Industry	Belaboba Chap 1		
Feb 1 (2)	Airline Economics	Belaboba Chap 3		JF
Feb 8 (3)	Pricing & Revenue Management	Belaboba Chap 4		JF
Feb 15 (4)	Airline Operating Costs and Measures of Productivity	Belaboba Chap 5		JF
Feb 22 (5)	Airline Planning Process	Belaboba Chap 6		
Mar 1 (6)	Airline Schedule Optimization	Belaboba Chap 7		VK
Mar 8 (7)	Airline Schedule Optimization	Belaboba Chap 7		VK
Mar 15 (8)	Spring break			
Mar 22 (9)	Irregular Operations	Belaboba Chap 9		
Mar 29 (10)	Air Transport & Environment	Belaboba Chap 14		TT
Apr 5 (11)	Air Transport & Environment	Belaboba Chap 14		TT
Apr 12 (12)	Aviation Safety	Belaboba Chap 11		
Apr 19 (13)	Terminal Chaos			
Apr 26 (14)	Terminal Chaos			
May 3 (15)	Terminal Chaos			
May 10 (16)	Final Exam			

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Grades:

- Homework/Quizzes – 25%
- Mid-term Exam – 30%
- Final Exam – 30%
- Class Project – 15%

Class Project Topics:

(10 pages double spaced, not including graphs/tables/figures)

Undergraduates:

- Air Transportation System: Problems, Causes, Solutions

Graduates:

- Air Transportation System: Problems, Causes, Solutions
- On-line Course Material for Chapter in Textbook (Video, Workbook, Wiki, Games, ...)
- Research Papers:
  - Airport Capacity Models (Literature Survey)
  - ATC Buffers (Literature Survey)
  - FlightZone.com (Business Case)
  - FlightStats.com (Business Case)
  - Passenger Trip Simulation (Simulation)
  - Denied Boarding Models (Optimization)
  - Beacon Codes (Optimization)
  - “Lost Flights” System Design
  - Other ?

**Academic Honesty:**

- Honor Code strictly enforced.
- Suspected violations will be reported