

Air Transportation Operations and Management

National Kaohsiung First University of Science and Technology
Kaohsiung 81164, Taiwan

Course Information

Course title: Air Transportation Operations and Management
Course number: 1909 (UDL4639)
Credit Hours: 3
Level: undergraduate
Day & Time: Wed. 9:10 - 12:00
Classroom: E311
Term & Year: Spring 2009

Instructor

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Teaching Assistant

To be decided

Objective

The purpose of this course is to provide the fundamental knowledge to the air transportation industry and the major management functions within an airline. The models adopted by airlines for scheduling and planning are also introduced.

Prerequisites

None

Textbook

1. 張有恆，航空運輸學，華泰文化，2007年。
2. Handout and selected papers

References

1. John G. Wensveen, Air Transportation: A Management Perspective, Ashgate Publishing Company, 2007.
2. Massoud Bazargan, Airline Operations and Scheduling, Ashgate Publishing Company, 2004.
3. Dusan Teodorovic, Airline Operations Research, Gordon and Breach Science Publishers, 1988.

4. Yu, Gang (Ed.), Operations Research in The Airline Industry, Kluwer Academic Publishers, Boston, 2002.
5. Janic, Milan, Air Transport System Analysis and Modelling: Capacity, Quality of Services and Economics, Gordon and Breach Science Publishers, Malaysia, 2000.
6. Janic, Milan, The Sustainability of Air Transportation: A Quantitative Analysis and Assessment, Ashgate Publishing Company, 2007.

Grading

Participation	10%
Homework or Quiz	20%
Mid-Term	30%
Final	40%

Policies

1. All assignments will have a definite due date. Assignments are due before the class. Handed in at any other time are subject to late penalties.
2. Working together and discussion are encouraged, but any assignment you turn in must be your own work. Academic dishonesty has serious consequences.
3. No cheating in exams.

Outline

1. Introduction
2. Structure and Economics of Airlines
3. Managerial Aspects of Airlines
4. Airline Demand Forecasting
5. Airline Network Design
6. Airline Schedule Design

Tentative Schedule

Week	Topic	Reading
1	Course Description	
2	Introduction	
3	Historical Perspective	
4	Regulators and Associations	
5	Economic Characteristics of the Airlines	
6	Economic Characteristics of the Airlines	
7	Airline Management and Organization	
8	Airline Management and Organization	
9	Mid-Term	
10	Demand Forecasting	
11	Demand Forecasting	
12	Airline Network Design	
13	Airline Network Design	
14	Flight Frequency Determination	
15	Airline Schedule Design	
16	Airline Schedule Design	
17	Aircraft Routing Problem	
18	Final	