SYLLABUS SAN JOSE STATE UNIVERSITY DEPARTMENT OF AVIATION AND TECHNOLOGY

AVIA 179 – Advanced Airport Planning and Management

Spring Semester, 2015 Wednesday, 1500-1745

Instructor: Wenbin Wei Office: Industrial Studies 103 Email: wenbin.wei@sjsu.edu

Phone: 408-924-3206 **Classroom:** IS 216

Office Hours: Monday 1450- 1650

THE INSTRUCTOR RESERVES THE RIGHT TO AMEND THIS SYLLABUS AS APPROPRIATE WITH COURSE PROGRESSION

Catalog Description:

Noise generation and abatement. Leasing and property management including the impact of federal regulations. Concession planning. Use of technology to increase efficiency and security in airports.

Prerequisite:

Avia 178, UrbP 136

Course Objectives:

This course is an advanced study of issues related to airport management. At the conclusion of this class, the students will be able to:

- 1. Clearer about the daily airport operations including ground operations, passenger flow management, baggage handling and cargo operations;
- 2. Better understand and follow up with the most updated and emerging airports issues related to capacity, delay, efficiency, finance and administration;
- 3. Apply the basic principle and methodology to study some focused issues in airport industry;
- 4. Develop skills for majority of tasks in airport and related industry;
- 5. Better understand and be able to resolve issues related to noise, environment and relationship with the community, and analyze airport safety and security issues;
- 6. Develop research-oriented project implementation skills and professional presentation skills.

Textbook

1. Airport Operations (2nd ed.). Ashford, N., Stanton, M., & Moore, C. (1996). New York: McGraw-Hill.

Course Description

This course will cover advanced and current topics in airport planning and management, such as relationship between airlines and airport, airport finance and economics, airport ground access and intermodalism, environmental issues, cargo operations, new generation of aircraft and ATC technology, impact of High Speed Rail, and etc.

The most recent research by the instructor in these areas will also be introduced in the class.

Guest lecturers from local airports (such as SJC, OAK, and SFO), Caltrans, FAA, and NASA might be invited to this class to discuss some current issues in the industry.

Course Grading

Class Participation: 20%

Two papers: 60% (1st: 20%; 2nd: 40%)

Paper presentations: 10%

Final exam: 10%

The typical final grade distribution is: 93-100 A; 90-92 A-; 88-89 B+; 83-87 B; 80-82 B-; 78-79 C+; 73-77 C; 70-72 C-; 69 D+; 65-68 D; below 65 F. And the final grade might be adjusted due to the degree of difficulty of the assignments.

Reading Assignment

Students are recommended to complete the advance reading assignment for each lecture. The lecture will be difficult for those who don't make this preparation.

Class Format

- a. Instructor's lectures and presentations
- b. Discussions on current/emerging issues in airline business
- c. Group work and student presentations

Exams

Exams will cover materials in lectures, assigned readings, homework, class discussions, and student presentations. Make-up tests will not be allowed unless prior approval is obtained from the instructor and will be given in the case of evidenced extreme circumstances.

Class Paper and Term Paper

Each student is required to write two papers of two different topics for this class. The first paper is based on the individual project, and the second is based on the group project. Grading of the papers is based on the following criteria:

- a. Use of resources: your papers should indicate a thorough search of information and indepth investigation of the chosen subject.
- b. Organization and style of writing: the papers should include introduction, literature review, analysis, and a conclusion summarizing your own points. It should have clear transitions.
- c. Contents and analysis: focused and relevant discussion of subject, in-depth analysis, and clear summarization of main points.

Academic integrity statement (from the Office of Student Conduct and Ethical Development):

"Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the university's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The policy on academic integrity can be found at http://sa.sjsu.edu/student conduct."

Campus policy in compliance with the Americans with Disabilities Act:

"If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with DRC to establish a record of their disability."

Tentative Course Schedule (subject to change with fair notice)

| Class | Date | Lecture Topic | Reminders |
|-------|---------|--|------------------|
| 1 | Jan. 28 | Introduction and review | |
| 2 | Feb. 4 | Airport peaks and airline rescheduling, | |
| | | relationship between airlines and airport; Landing | |
| | | fee policies | |
| 3 | Feb. 11 | Airport finance and economics, leasing and | |
| | | property management, concession planning | |
| 4 | Feb. 18 | Terminal operations, ground handling, baggage | |
| | | handling, safety and security; airport operation | |
| | | strategies | |
| 5 | Feb. 25 | Airport ground access and intermodalism; Impact | |
| | | of HSR, transfer center | |
| 6 | Mar. 4 | Airport noise, environmental issues, abatement | |
| | | measure, operational administration and | |
| | | performance; Airport site selection, GA | |
| | | operations | |
| 7 | Mar. 11 | Guest lecture/ Regional airport/Emerging issues | |
| 8 | Mar. 18 | Student presentation | First paper due |
| | Mar. 25 | Spring break/no class | |
| 9 | Apr. 1 | Guest lecture/ Regional airport/ Emerging issues | |
| 10 | Apr. 8 | Aircraft operating characteristics, operational | |
| | | readiness, technical service; NextGen | |
| | | technologies | |
| 11 | Apr. 15 | Air cargo and its economic impact, aircraft | |
| | | emergencies; UAV, larger aircraft | |
| 12 | Apr. 22 | Airport capacity, congestion and delay; | |
| | | Sustainability, green technologies | |
| 13 | Apr 29 | Course summary/guest lecture | |
| 14 | May 6 | Student presentation | |
| 15 | May 13 | Student presentation | Second paper due |

Final exam: Friday, May 15, 2015, 1215-1430.