

APT A110: INTRODUCTION TO AIRPORT OPERATIONS

Item	Value
Curriculum Committee Approval Date	10/21/2020
Top Code	302010 - Aviation and Airport Management
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

This course provides students with an introduction to airport operations and operations management. Students will learn about the daily responsibilities of airport operations managers to include airfield inspections, aircraft ramp handling, passenger terminal operations, airport security and cargo handling. In addition the student will be introduced to airport licensing requirements, airport operational administration and performance and environmental planning factors to include noise abatement. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Explain how airports function as a part of our national transportation infrastructure.
2. Describe the operational functions inherent in airport operations to include ramp, passenger and cargo handling, airport security, regulatory compliance, handling of hazardous materials and emergency response.

Course Objectives

- 1. Explain the importance of the airport as part of our national transportation system.
- 2. List the operating constraints of a typical airport.
- 3. List basic airport licensing requirements.
- 4. Explain safe airport ramp handling procedures.
- 5. Define noise abatement and describe its applicability to airport operations.
- 6. Identify hazardous materials that require special handling in the airport environment.
- 7. List the technical services available on the airport and describe their functions.
- 8. Describe airport emergency response procedures.
- 9. Describe the airport operations manual.

Lecture Content

1. The airport as a system a. The national airport system b. The function of the airport as part of our national transportation infrastructure c. Airport management and operational structures2. Airport operations a.

Airport certification 1) FAR Part 139 Airport Classifications 2) Inspection and compliance 3) Pavement management 4) Aircraft rescue and firefighting 5) Bird and wildlife hazard management 6) Self inspection process b. Operating constraints c. Operating areas d. Navigational aids e. Approach and airport lighting f. Airfield inspections g. Maintaining readiness3. Ground handling a. Passenger handling b. Cargo handling c. Ramp operations d. Aircraft servicing e. Division of ground handling responsibilities4. Passenger terminal operations a. Terminal functions b. Philosophies of terminal management c. Airline related passenger services d. Regulatory requirements e. Non-passenger related airport functions f. Passenger information systems g. Aids to circulation h. Hub considerations5. Cargo operations a. Expediting cargo movement b. Unit loading devices c. Handling within the terminal d. Cargo apron operations e. Computerization of facilities6. Airport security a. Security planning b. Organizational structure and responsibilities c. Airside security procedures bd. Passenger terminal security procedures e. Cargo terminal security procedures f. Security equipment and systems7. Environmental concerns a. Airport noise control 1) Noise control strategies 2) Noise certification 3) Noise monitoring procedures b. Hazardous materials 1) Hazardous materials and fuel storage 2) Response procedures for hazardous waste spillage8. Airport technical services a. Air Traffic Control b. Meteorology c. Aeronautical information9. Airport emergencies a. General b. Probability of an aircraft accident c. Types of emergencies d. Level of protection required e. Water supply and emergency access f. Personnel requirements g. The airport emergency plan h. Aircraft fire fighting and rescue procedures i. Foaming runways j. Removal of disabled aircraft10. The airport operations manual a. Function of the manual b. Format for the airport operations manual

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lecture and application of ideas, slide and multimedia presentations.

Reading Assignments

Textbook reading and information supplements on Blackboard/Canvas will apply as required reading assignments.

Writing Assignments

Short answer written homework assignments will be used to demonstrate writing proficiency.

Out-of-class Assignments

Weekly take-home projects, homework, and flight planning assignments will apply as required out-of-class assignments.

Demonstration of Critical Thinking

1. Written examinations 2. Homework3. Classroom problem solving exercise

Required Writing, Problem Solving, Skills Demonstration

Short answer written homework assignments will be used to demonstrate writing proficiency.

Other Resources

1. Ashford, Norman, Stanton, Martin and Moore, Clifton, Airport Operations, New York: NY, McGraw-Hill, Current Edition, latest.