

APT A115: INTRODUCTION TO FLIGHT OPERATIONS

Item	Value
Curriculum Committee Approval Date	12/09/2020
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 an introduction to airline and corporate flight operations and operations management to include the economic structure of the airlines, airline organization and management, forecasting, scheduling, marketing and fleet selection. In addition, corporate flight operations and the impact of general aviation on the nation's air transportation system are explored. The course also introduces the student to the world of flight operations management to include dispatch, crew scheduling, airframe scheduling and flight following. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. List the economic characteristics of an oligopoly and how these factors influence air carrier management planning.
2. Explain airline and non-scheduled air carrier scheduling and operational control.
3. List the functions of a fixed base operation.

Course Objectives

- 1. Define major, national and regional airline.
- 2. List the economic characteristics of an oligopoly and how these characteristics apply to airlines.
- 3. List the principles of air carrier scheduling.
- 4. Explain the principles behind airline fare structures.
- 5. Explain the fleet planning process.
- 6. Explain the function of Fixed Based Operators in the air transportation system.
- 7. Explain the differences between scheduled and non-scheduled fleet planning, scheduling, and operational control.

Lecture Content

1. The Airline industry a. The structure of the airline industry b. Major and national carriers c. Regional carriers d. Airline certification e. Data collection by DOT2. Economic characteristics of the airlines a. The airlines as oligopolies b. Unique economic characteristics of the airlines c. The significance of load factors3. Managerial aspects of the airlines a. Functions of management b. Air carrier management

organization c. Staff departments d. Line departments4. Air carrier economic forecasting, marketing and pricing a. The purpose of forecasting b. Forecasting methods c. The marketing mix d. Marketing since deregulation e. Airline pricing, demand and output 1) The trend in domestic passenger airfares 2) Pricing and demand 3) Types of passenger airfares 4) The pricing process 5) Airline costs 6) Pricing and output determination5. Principles of air carrier scheduling a. The mission of scheduling b. Equipment maintenance c. Flight operations and crew scheduling d. Ground operations and facility limitations e. Hub and spoke scheduling6. Fleet planning and aircraft selection a. Factors in fleet planning b. The fleet planning process c. The decision to upgrade or replace7. The General Aviation Industry a. Fixed Base Operators 1) Function in the national air transportation system 2) Administration of the business 3) Line Services 4) Aircraft storage 5) Aircraft maintenance a) Airframe maintenance b) Avionic installation c) Engine maintenance 6) Flight instruction b. Non Scheduled air carrier operations and corporate aviation 1) Operations under FAR Part 91 and Part 135 2) Scheduling non scheduled operations a) Aircraft availability and positioning b) Aircrew availability and positioning c) Client requirements 3) Dispatch and flight following 4) Fleet acquisition and financing 5) Leasebacks8. Careers in Flight Operations a. Customer Service b. Line Service Technicians c. FBO management d. Scheduling e. Dispatch f. Flight operations management

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, equipment demonstrations.

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

Written examinations Homework. Problem solving exercises

Required Writing, Problem Solving, Skills Demonstration

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

Other Resources

1. What textbooks or materials are required or will the instructor provide selected hand out material. Written in MLA style, Wensveen, John. Air Transportation: A Management Perspective. Sixth Edition. Burlington: Ashgate Publishing Company, latest.