

APT A133: AVIATION-METEOROLOGY

Item	Value
Curriculum Committee Approval Date	12/09/2020
Top Code	302020 - Piloting
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

Entry level course for commercial pilot training program. This course will cover the forces which generate and affect weather, weather systems, aviation weather services and cross country weather planning procedures. The course will also provide detailed material on aviation weather hazards and aviation meteorological reports. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Describe the forces which create and affect weather.
2. Read and interpret aviation weather reports.
3. Identify and explain the principle weather related hazards to aviation.

Course Objectives

- 1. Identify and define weather patterns.
- 2. Interpret weather reports and forecasts.
- 3. Interpret weather maps.
- 4. Identify weather conditions which may be hazardous to flying.
- 5. Develop a definite awareness of safety (decisions and procedures).
- 6. Name and define weather terms.
- 7. Define and discuss the earth's atmosphere.
- 8. Identify the various sources of weather information.
- 9. Differentiate between tropical and arctic weather.
- 10. Develop a big picture of all facets of the weather.

Lecture Content

The earth's atmosphere Temperature: measurement range, distribution
 Atmospheric pressure Wind: general circulation, secondary circulation
 Moisture Stability Turbulence Clouds Air masses Fronts Thunderstorms
 Icing Fog and low status Precipitation and related obstructions to
 visibility Organization and relationship of weather agencies Weather
 observations Weather charts Aviation weather forecasts Using the
 weather services Related subjects: high altitude weather, tropical and
 arctic weather

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

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Writing Assignments

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

Out-of-class Assignments

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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.

Textbooks Resources

1. Required Lester, Peter F. Aviation Weather, ed. Englewood, CO: Jeppesen-Sanderson, 2007
2. Required National Weather Service. Aviation Weather Services AC-00-45D, ed. Oklahoma City: Federal Aviation Administration, 0 Rationale: latest
3. Required US Department of Commerce. Microbursts: A Handbook for Visual Identification, ed. Oklahoma City: Federal Aviation Administration, 0 Rationale: latest
4. Required Irvin Gleim and Garrett Gleim. Aviation and Aviation Weather Services, ed. Gainesville: Gleim Publications, 0 Rationale: latest