

CATALOG INFORMATION

Dept and Nbr: AERO 55

Title: AVIATION WEATHER

Full Title: Aviation Weather

Last Reviewed: 5/14/2007

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**  
Practical application of weather data to flight planning for the general aviation pilot. Discussion of fronts, systems, observations, forecasts, winds and the identification of potentially hazardous weather.

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Math proficiency.

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: Practical application of weather data to flight planning for the general aviation pilot. (Grade or P/NP)  
Prerequisites/Corequisites:  
Recommended: Math proficiency.  
Limits on Enrollment:  
Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>			<b>Effective:</b>	<b>Inactive:</b>
<b>CSU GE:</b>	<b>Transfer Area</b>			<b>Effective:</b>	<b>Inactive:</b>
<b>IGETC:</b>	<b>Transfer Area</b>			<b>Effective:</b>	<b>Inactive:</b>
<b>CSU Transfer:</b>	Transferable	<b>Effective:</b>	Fall 1981	<b>Inactive:</b>	Spring 2011
<b>UC Transfer:</b>		<b>Effective:</b>		<b>Inactive:</b>	

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

## **COURSE CONTENT**

**Outcomes and Objectives:**

**Topics and Scope:**

PHASE I CONTENT-Nature of the Atmosphere:

1. The Earth's Atmosphere
2. Temperature
3. Atmospheric Pressure and Altimetry
4. Wind
5. Moisture, Cloud Formation, and Precipitation
6. Stable and Unstable Air
7. Clouds
8. Airmasses and Fronts
9. Icing
10. Thunderstorms
11. Common IFR Producers

Completion Standards: At the completion of this pahse the student will be familiar with the above content and be able to pass the Phase I written exam.

PHASE II CONTENT-Aviation Weather Services:

1. The Aviation Weather Service Program
2. Aviation Weather Reports
3. Aviation Weather Forecasts
4. Aviation Weather Charts
5. Availability of Weather Service Products - Private and Public

Completion Standards: At the completion of this phase the student will be able to decode weather reports, charts and forecasts available from the National Weather Service for flight planning. Also, the student will have become aware of the variety of public and private sources of weather information and how to access them. The student will be able to pass

the Phase II written exam.

PHASE III CONTENT-Advanced Weather Theory:

1. High Altitude Weather
2. Artic Weather
3. Tropical Weather
4. Soaring Weather

Completion Standards: At the completion of this phase students will grasp the primary meteorological flight precautions and considerations for flying in the Artic, the Tropics, or at high altitude. Also, successful completion of this phase will have developed the student's understanding of the principles of soaring so that he will be able to pass the Phase III written exam.

PHASE IV CONTENT-Review:

1. Phase I written exam content review
2. Phase II written exam content review
3. Phase III written exam content review
4. Aviation Weather course final examination

Completion Standards: All questions included in the final course exam must be passed with a 70% or higher, and an average score of 70% or higher must be maintained by the student when Phases I, II, III, and the course final exam are averaged.

### Assignment:

Course requirements will include:

1. Reading the current U.S. Department of Transportation Advisory Circular on aviation weather theory and aviation weather services.
2. Completion of a weather mapping project.
3. Written critical review of an article from a current periodical on an aviation weather related subject.
4. Written review of an approved book on meteorological subject matter.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework

Writing  
0 - 20%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Field work, Quizzes, Exams

Problem solving  
0 - 20%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Performance exams

Skill Demonstrations  
0 - 20%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion

Exams  
80 - 100%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

Aviation Weather- U.S. Department of Transportation  
Aviation Weather Services-U.S. Department of Transportation