



MASTER COURSE OUTLINE

Prepared By: Gregory Crane

Date: February 2014

COURSE TITLE

Meteorology

GENERAL COURSE INFORMATION

Dept.: AVF

Course Num: 113

(Formerly:)

CIP Code: 49.0102

Intent Code: 21

Program Code:

Credits: 5

Total Contact Hrs Per Qtr.: 55

Lecture Hrs: 55

Lab Hrs:

Other Hrs:

Distribution Designation: Natural Science (NS)

COURSE DESCRIPTION (as it will appear in the catalog)

This course is designed for pilots but it is helpful for the non-aviation major to understand the basics of meteorology. A study in the nature of atmosphere, winds, temperature, moisture, air masses and frontal systems, weather forecasting utilizing charts and reports available from FAA **FSSs**; incorporates techniques for flying in various weather conditions.

PREREQUISITES

AVF112 or Chief Pilot approval

TEXTBOOK GUIDELINES

Aviation Weather (AC 00-6A) FAA Department of Transportation

Aviation Weather Services (AC 00-45G) FAA Department of Transportation

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

Upon successful completion of the course, the student will be able to understand basic weather theory, and the cause and effect relationship to each part, recognize critical and typical weather phenomenon including cloud types & related weather, and be able to read the weather service's charts and reports. These skills will be demonstrated by written tests.

INSTITUTIONAL OUTCOMES

COURSE CONTENT OUTLINE

1. Introduction
2. The earth's' atmosphere & temperature
3. Atmospheric Pressure and Wind
4. Moisture and Clouds
5. Stability and Turbulence
6. Air Masses & Fronts
7. Review & Evaluation

8. Icing
9. Thunderstorms
10. Common IFR Producers
11. High Altitude
12. Arctic Weather
13. Tropical Weather
14. Soaring Weather
15. Review & Evaluation
16. Aviation Weather Services
17. Weather Charts
18. Review
19. Review & Evaluation

DEPARTMENTAL GUIDELINES *(optional)*

Three mid-term tests will be given plus a comprehensive final. Between major tests, short 15 minutes quizzes will be used to maintain study motivation and supplement the overall-testing program. Grades will be earned according to the following numerical system. Note *70% is lowest passing grade.

98-100%	4.0	88%	3.0	78%	2.0
97%	3.9	87%	2.9	77%	1.9
96%	3.8	86%	2.8	76%	1.8
95%	3.7	85%	2.7	75%	1.7
94%	3.6	84%	2.6	74%	1.5
93%	3.5	83%	2.5	73%	1.3
92%	3.4	82%	2.4	72%	1.1
91%	3.3	81%	2.3	71%	0.9
90%	3.2	80%	2.2	70%	0.7
89%	3.1	79%	2.1		

DIVISION CHAIR APPROVAL

DATE