

AVMG 3050
Severe and Hazardous Weather Disruptions
Fall Semester, 2014

Lecturer: James Birdsong
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Class Schedule: Tuesday and Thursday, 9:30 - 10:45 am, Lowder Hall 111

Office Hours: 2:15 – 4:15 pm, Monday – Thursday, or by appointment (call or email).

Required Materials:

Aviation Weather (4th Edition) by Peter F. Lester. Published by Jeppesen, ISBN: 978-0-88487-594-9.

Course Prerequisites: Departmental approval.

Catalog Description: Meteorology as it applies to the operation of aircraft with emphasis on observation of weather elements and interpretation of flight planning weather information.

Course Objectives: Upon completion of this course, students will be able to:

1. identify atmospheric properties.
2. describe weather-producing atmospheric processes.
3. interpret flight planning weather information.
4. predict operational outcomes in varying weather conditions.
5. apply weather analysis in operational and managerial decision making processes.
6. discuss the impact of weather in aviation operations and management.

Course Structure: The course meets two times per week and examines meteorology as it applies to aviation operations through lectures, in-class activities, research, and evaluations.

Student Responsibilities:

Grades for the course will be based on performance in three areas:

1. Tests: There will be three multiple choice tests during the semester. Questions will emphasize the ability to analyze/synthesize reading materials, class discussions, and related assignments.
2. Research Presentation: During the first week of class, students will be placed in groups. Each group will research a weather-related commercial mishap of their choice (subject to instructor approval) and give a 15-minute presentation that communicates the mishap profile, chain of events that led to the mishap, operating and procedural recommendations as a result of the mishap, and the subsequent impacts on the air transport industry. The presentation should be clear, concise, and articulate. Each group is responsible for submitting a 2-3 page detailed outline of their research presentation and bibliography on the day of their presentation.

3. **Class Participation:** Students are expected to actively participate in class which includes asking questions, sharing experiences, and engaging others with valid critical exchanges. Reading assignments prior to class is a must.

Unless otherwise announced, activity points (% of final grade) will be calculated as follows:

Activity	Points Possible	% of Final Grade
Test 1	100	20
Test 2	100	20
Final Exam	100	20
Presentation	125	25
Class Participation	75	15
TOTAL	500	100

Grading scale:

- A: 90 - 100%
- B: 80 - 89%
- C: 70 - 79%
- D: 60 - 69%
- F: < 60%

Course Procedures and Policies

Professionalism and integrity are expected at all times. Specific policies include:

1. **Attendance:** Students are expected to attend all classes, arrive on time, and take part in discussions. Should you need to be absent for any reason, please let me know ahead of time. If you are absent, regardless of the reason, you are still responsible for all material covered that day.
2. **Special Accommodations:** Students who need special accommodations should provide a copy of the Accommodation Memo as soon as possible. If you do not have an Accommodation Memo, contact the Office of Accessibility (located in 1228 Haley Center) at 844-2099 as soon as possible.
3. **Academic Honesty:** I expect you to act ethically at all times. Academic indiscretions (cheating, plagiarism, etc.) may be immediately referred to the Academic Honesty Committee.
4. **Test schedule:** Out of fairness to other students, test rescheduling will be limited. If you miss a test for a legitimate University approved reason (documented illness, death in the family, or some other unusual circumstance), you will have the opportunity to take a make-up during our regularly scheduled final exam period.
5. **Grades:** I will provide feedback on your performance regularly.
6. **Availability:** I'm happy to discuss any questions or concerns you have about the course, careers, or aviation in general. Please meet me after class or call / email for appointment (Monday - Friday).

As a reminder, each student should review Auburn University's Student Policy eHandbook:
http://www.auburn.edu/student_info/student_policies/

Class Schedule

AUG 19	Introduction: Course Administration and Expectations
AUG 21	The Atmosphere / Chapter 1 [Lester]
AUG 26	Atmospheric Energy and Temperature / Chapter 2 [Lester]
AUG 28	Pressure Altitude and Density / Chapter 3 [Lester]
SEP 2	Pressure Altitude and Density / Chapter 3 [Lester]
SEP 4	Wind / Chapter 4 [Lester]
SEP 9	Vertical Motion and Stability / Chapter 5 [Lester]
SEP 11	Atmospheric Moisture / Chapter 6 [Lester]
SEP 16	Review
SEP 18	Test 1
SEP 23	Scales of Atmospheric Circulations / Chapter 7 [Lester]
SEP 25	Air masses, Fronts, and Cyclones / Chapter 8 [Lester]
SEP 30	Thunderstorms / Chapter 9 [Lester]
OCT 2	Local Winds / Chapter 10 [Lester]
OCT 7	Wind Shear / Chapter 11 [Lester]
OCT 9	Turbulence / Chapter 12 [Lester]
OCT 14	Icing / Chapter 13 [Lester]
OCT 16-17	Fall Break
OCT 21	Instrument Meteorological Conditions / Chapter 14 [Lester]
OCT 23	Additional Weather Hazards / Chapter 15 [Lester]
OCT 28	Guest Speaker: Ms. Patricia Atwell, NWS
OCT 30	Review
NOV 4	Test 2
NOV 6	Applying Weather Knowledge / Chapter 16 [Lester]
NOV 11	Weather Evaluation for Flight / Chapter 17 [Lester]
NOV 13	Case Study
NOV 18	Student Research Presentations
NOV 20	Student Research Presentations
NOV 24-28	Thanksgiving Break
DEC 2	Student Research Presentations
DEC 4	Review
DEC 9	Final Exam