SEVERE AND UNUSUAL WEATHER METEOROLOGY 2603-900 FALL 2006

Greetings! Over the next few months, we’ll explore the violent and rare events that make the study of meteorology really exciting. We’ll begin by learning about the physical processes that govern our atmosphere, laying the groundwork necessary for the death-and-destruction topics in the second half of the semester. Before the year is out, you will be able to locate and interpret your own sources of weather information and explain to your friends and family how tornadoes, hurricanes, thunderstorms, and blizzards form. We’ll also study more docile but just as interesting phenomena that you can see right here in Oklahoma. Best of all, you’ll be able to recognize a threatening weather situation and take action so you can keep yourself and others safe. Ask lots of questions and enjoy!

Instructor
Christopher Godfrey
Office: National Weather Center, Room 2602
Phone: 405-325-6228
E-mail: godfrey@ou.edu

Office Hours
Monday and Wednesday from 3:45 p.m. to 4:30 p.m.
Sarkeys Energy Center, Room 430
Phone: 405-325-2469 (during office hours only)

I will hold formal office hours in Sarkeys Energy Center for 45 minutes prior to each class, with the expectation that I will be available for several minutes after class as well. When I’m in my office at the National Weather Center, my door is always open to you. E-mail is the best way to reach me, and phone calls are next, but if you would like to see me in person, give me a call to make sure I’m there before driving all the way to south campus. I will also be available by appointment. If you have questions about class, other coursework, or college life, please feel free to talk with me whenever the need arises.

Meeting Times
This class meets every Monday and Wednesday from 4:30 p.m. to 5:45 p.m. Class will start and end on time. Please arrive on time. I hope that the class is interesting enough that you will also refrain from leaving early!

Readings
Required text:

Optional, yet highly recommended text:

Optional text:

Class Web Page
Sign in at http://learn.ou.edu and select this course.

Important Dates
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>Wednesday, 27 September</td>
<td>Exam I</td>
<td>In class</td>
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<tr>
<td>Wednesday, 8 November</td>
<td>Exam II</td>
<td>In class</td>
</tr>
<tr>
<td>Thursday, 14 December 2006</td>
<td>Final Exam</td>
<td>10:30 a.m. – 12:30 p.m.</td>
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Course Schedule
With the exception of examination dates, this course schedule is approximate and subject to modifications.

**Date** | **Topic** | **Reading** | **Homework**
---|---|---|---
21 August | Geography, Describing the atmosphere | Chapter 1 |
23 August | Describing the atmosphere (States quiz) | Chapter 1 |
28 August | Describing the atmosphere | Chapter 1 |
30 August | Radiation, Seasons | Chapters 1 & 2 | #1 Assigned
4 September | No class |
6 September | Observations | Chapter 2 |
11 September | Radar, Satellite, Stability | Chapters 2 & 5 | #1 Due
13 September | Stability | Chapter 5 |
18 September | Atmospheric motion | Chapter 6 |
20 September | Atmospheric motion | Chapter 6 | #2 Assigned
25 September | Cyclones and anticyclones | Chapters 3 & 7 |
27 September | **Exam I** |
2 October | Fronts | Chapter 8 | #2 Due
4 October | Fronts | Chapter 8 |
9 October | Thunderstorms | Chapters 17 |
11 October | Thunderstorms, Lightning | Chapter 17, 20 |
16 October | Thunderstorms, Hail | Chapters 17, 19 |
18 October | Thunderstorms, Downbursts | Chapters 17, 21 | #3 Assigned
23 October | Tornadoes | Chapter 18 |
25 October | Tornadoes | Chapter 18 |
30 October | Hurricanes | Chapter 23 |
1 November | Hurricanes | Chapter 23 | #3 Due
6 November | Guest Lecture: Dr. David Karoly “Global warming: Is it real? Can it affect violent weather?” |
8 November | **Exam II** |
13 November | Floods and droughts | Chapters 24 & 25 |
15 November | Ice Storms | Chapter 11 | #4 Assigned
20 November | Blizzards, Lake-effect snow | Chapters 12 & 14 |
22 November | No class | Mmm...turkey |
27 November | Unusual weather, Optical phenomena | Ahrens Chapter 15 |
29 November | Unusual weather, Optical phenomena | Ahrens Chapter 15 | #4 Due
4 December | Optical phenomena | Ahrens Chapter 15 |
6 December | Review |
14 December | **Final Exam** | 10:30 – 12:30 p.m. |

**Evaluation**
There will be two preliminary exams and a comprehensive final exam to assess your progress through the semester. The preliminary exams will take place during regular class meeting times. Four problem sets will strengthen your skills and reinforce the lecture material and will be due two weeks after you receive the assignment. Unannounced quizzes will be given at irregular intervals throughout the semester at the beginning of some lectures. Though attendance is not explicitly required, these quizzes will serve as a measure of attendance and will also provide you and me with some feedback. Since life happens, I will drop the lowest two quiz grades. **There will be no opportunities for make-up quizzes or exams.** Exams must be taken on the scheduled date. If you miss the class, you miss the grade. The only exceptions to this rule are: (1) serious medical condition (illness or injury) of you or an immediate family member; (2) University excused absence; (3) jury duty; or (4) military orders. Only in such instances will an exam or another quiz be dropped or rescheduled depending on your best interests, but only if I am notified at least 24 hours in advance. Appropriate documentation must accompany any excused absence from an exam or quiz.
Grading

<table>
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<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Preliminary exams</td>
<td>40%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Homework assignments</td>
<td>30%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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I will curve the final grades so that the average grade in the class is on the border between a B and a C. However, you are guaranteed at least the following based on your final score before applying the curve:

- 90.0-100: A
- 80.0-89.9: B
- 70.0-79.9: C
- 60.0-69.9: D
- 0-59.9: F

That is, if you have the lowest grade in the class and it is a 92, you will get an A. Final grades are not negotiable. If you see a problem with a quiz or exam grade, you may plead your case no later than 14 days from the date of the quiz or exam. I do make mistakes! Under no circumstances will your grade be lower if you see me with a question.

Academic Integrity

Since the point of this or any class is to learn, you may collaborate on homework assignments, but you absolutely must make sure that you hand in your own work. Copying your friend's answers will not only be obvious to me, but will result in both of you sharing the credit for that answer. Any collaboration on exams and quizzes is a more serious problem. I have zero tolerance for academic misconduct and will deal with the problem by immediately filing charges through the regular University channels.

Notes

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays.