

Introduction to Weather and Climate
METR 1014-910
Fall 2009
Monday, Wednesday 6:00–7:15 SEC, Room N202

Instructor:

Phillip Spencer
Office Hours: Before and after class or by appointment
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Grader: Jonty Hall (j.hall@ou.edu)

Co-requisite: Your assigned lab section.

Course Description:

This course is intended for those students not intending to major in meteorology. Weather and Climate introduces students to important phenomena and physical processes that occur in the Earth's atmosphere. Through laboratory exercises and lectures, students will learn the basic concepts and tools used to study atmospheric problems. Some of the main topics covered are:

1. Earth's atmosphere
2. Air temperature
3. Humidity and condensation
4. Clouds, cloud development, and precipitation
5. Air pressure and winds
6. Atmospheric circulations
7. Air masses, fronts, cyclones, and jet streams
8. Thunderstorms, tornadoes, and hurricanes
9. Air pollution, climate, and climate change

Texts:

- 1) *Essentials of Meteorology: An Invitation to the Atmosphere* by C. Donald Ahrens (5th Edition)
- 2) *Explorations in Meteorology: A Lab Manual*

I will not necessarily cover the material as ordered in the book. It is your responsibility to keep up with where we're at and where we're headed by attending class. The ordering of the labs may deviate from the order in the lab book, as well.

Office Hours:

My office hours are for *your* benefit, not mine. Remember, I am not your adversary! I am here to assist you in learning the required material. If something doesn't make sense and it doesn't get clarified in class, simply drop by office hours (or make an appointment) and we'll clear it up. Don't go into an exam not knowing the material; if you do, your grade will reflect it.

Grading:

Homework	10%
Pop Quizzes	10%
Laboratory Exercises	20%
Exam 1	20%
Exam 2	20%
Comprehensive Final Exam	20%

Since unavoidable circumstances sometimes occur during the course of a 16-week semester, I have opted to drop your lowest homework grade, your lowest pop quiz grade, and your lowest lab grade. Use these gifts wisely.

Homework, pop quiz, and laboratory exercises combined comprise 40% of your final grade. Take them seriously.

The instructor may, at his discretion, at any time offer merited or unmerited bonus point opportunities.

Do not expect to do well in this class if you make it a habit of not showing up for class, not paying attention, and/or not turning in assignments.

Final grades will be based on the following system:

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F less than 60%

Homework and Pop Quizzes:

There will be approximately 6-7 homework assignments during the course of the semester. You generally will be given at least one week to hand in the homework.

Homework is due at the beginning of class on the due date. *Homework not turned in by the end of class on the due date is considered late.* If you know that you will not be in class the day a homework assignment is due, you may hand in your homework during an earlier class or arrange beforehand to get the homework to me *before* the time that it is due. If you have a university-excused absence (e.g.,

athletics, band) on the day that homework is due, you too are expected to have it turned in by the due date. Otherwise, your homework will be considered late.

Late homework may be turned in *at the beginning* of the class period immediately following the due date, but a 50% penalty will be incurred before it is graded. Homework will not be accepted after this time, since graded homework often will be returned during the class period following the due date.

An unknown number of pop quizzes (>10) will occur during the course of the semester. Do not ask me ahead of time if a pop quiz will occur during a particular class period; I won't tell. Also, do not ask me to change the timing of a pop quiz to accommodate your coming to class late or leaving class early. Pop quizzes occur when I schedule them to occur during a class period. If you miss a pop quiz because you arrive late or leave early, it's your loss. [The timing of the pop quizzes is determined before class. I don't intentionally punish students who leave early by administering a pop quiz after they leave!] Finally, there's no rule forbidding me from administering more than one pop quiz during a given lecture period. Count on it happening at least once.

The primary purpose of homework and pop quizzes is to encourage you to keep up on your reading and to attend lectures. Homework and pop quiz scores should boost your overall grade if you're willing to read the textbook and attend lectures.

I prefer that you do your homework by yourself, but working in small groups is permitted. However, all who work in groups must hand in separate and distinct work, of course. Your answers to any short-answer essays had better not be exactly the same as your partner's; otherwise, it's considered cheating. [See "Academic Misconduct" below.]

There is no need to inform me beforehand that you'll be missing a particular lecture (unless you have a note from a university official requesting an excused absence). I do not take roll and there's nothing I can do about your absence. I can get an idea about your attendance record simply by noting the number of pop quizzes that you missed.

Laboratory Exercises:

Attending laboratories is both mandatory and prudent. Laboratories serve as a complement to the lecture material covered in this course. In addition, I (or your lab instructors) likely will write a few exam questions based on lab material. The lab instructors will provide more information to you during the first lab of what they expect of you. Labs begin the second week of classes.

Unless you have permission in advance from the lab instructors, please attend only the lab section that you are enrolled in. The lab rooms have very limited seating.

Exams:

There will be a total of three exams in this course (including the final exam). All exams will be 75 minutes long. Bring your ID to each exam, so that I may verify that you are who you say you are.

Generally, the lecture period prior to an exam will be devoted to answering questions about the material covered on the impending exam (after I present a brief summary highlighting what you've hopefully learned). Please do not ask if such-and-such will be on the exam; rather, ask about things that you don't quite yet understand.

The final exam is cumulative and will *not* simply be a collage of old exam questions. The final exam will be held during the last lecture period.

All topics and material in the book, discussed in lecture, and discussed in lab are fair game for exam material. Take good notes.

Desire2Learn: <https://learn.ou.edu> (log on using your 4x4)

D2L will be used in this course so that I can email you and post lecture notes and other course-related information online.

Courtesy in the Classroom:

Lectures begin promptly at 6:00 pm. Do not make it a habit of showing up late. Your classmates and I expect no rude interruptions (talking, pagers, cell phones, etc.) during the allotted lecture time. Please be courteous.

Please time your bathroom breaks to occur *outside* of the lecture period. If you must go, please try to minimize the disruptiveness of your exit and return. Also, please don't start putting your notes/laptop/whatever away until class is dismissed.

Friendly interruptions (i.e., questions about the lecture material, OU sports) are always welcome. Just raise your hand; don't be shy. If you don't understand something, simply get my attention (with a well-timed, obnoxious throat-clearing noise if need be) and I'll do my best to clarify.

Accommodation of Students with Disabilities:

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 instructor 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 fax only 405-325-4173.

Academic Misconduct:

All students are expected to be familiar with and abide by the OU Academic Misconduct Code. Information on this code and other student policies is located at <http://studentconduct.ou.edu>.

Cheating will not be tolerated and will be reported. No exceptions. No excuses.

In short, if you cheat, expect bad and embarrassing things to happen to you.

Religious Holidays:

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

Any student who has a religious holiday fall on one of the exam days, please see me no later than *one week before* the exam so that we can make other arrangements for you.