



METR 1014: INTRODUCTION TO WEATHER & CLIMATE

Course Syllabus

Spring 2010



Class time: TR 1:30 – 2:45pm, Room A235 SEC

Instructor: Dr. Susan Postawko, Associate Professor of Meteorology (spostawk@ou.edu)

Office: SEC room 413, phone 325-8870

Alternate Office: National Weather Center (NWC) room 5329, phone 325-1142

Office hours: 2:45 - 3:30 Tues/Thurs in room 413 SEC, or by appointment

Course web page: Accessible via <https://learn.ou.edu> (log on using your 4+4)

Co-requisite: Lab section

Required Texts:

Essentials of Meteorology: An Invitation to the Atmosphere, by C. Donald Ahrens, 5th ed.

Explorations in Meteorology: A Lab Manual

Course Grade Determination:

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| 2 in-class exams @ 20% each (no drops) | 40% |
| Assignments/pop quizzes | 10% |
| Comprehensive Final Exam | 25% |
| Lab Section Grade | 25% |

About this course:

Meteorology 1014 is a survey course of weather and climate for non-meteorology majors. In this class we will cover a wide variety of topics to help you gain an understanding of the science behind daily weather, climate and climate change, as well as current-events topics such as ice storms, heat waves, and global warming.

It is NOT the aim of the course to make scientists out of all of you; but to help you gain a basic understanding of the atmosphere, and to develop critical thinking skills so that you can read and intelligently discuss newspaper and magazine articles related to weather and climate.

You are expected to come to class prepared to discuss the day's topic (from reading assignments from the required text). Although class attendance is not formally a part of your grade for this course, you will get much more out of the course, and have a much easier time with the material if you regularly attend class. In addition, there will be material presented in class that will not be in the textbooks. Although I will make every effort to post material on the course web site, your comprehension of the material will be much greater if you are actually in class when it is presented.

If you are having problems with the course material, I strongly urge you to come and talk to me sooner rather than later. I can't do anything if you wait until the last week of classes to come and talk to me about problems you've been having all semester.

Remember that education is a two-way street – I can only present the material and facilitate discussion, but you must bring to class an intellectual curiosity and a willingness to learn. In order to get the most out of any class, you **MUST** take an active role in your own education!

About the labs:

The labs associated with this class are designed to both enhance your understanding of lecture material, as well as to introduce some material that we simply don't have time to cover in lecture. As such, the labs don't always coincide exactly with what is going on in lecture.

Although there are several lab sections associated with this class, **PLEASE** don't play "musical lab periods". That is, unless you have permission in advance from the Teaching Assistant(s), please only attend the lab section that you are enrolled in. The lab rooms have very limited seating capacity.

The lab section will make up 25% of your final grade for this class. Your Teaching Assistant will have more information for you when you attend your first lab.

IMPORTANT POLICIES:

Reasonable Accommodation: The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodation in this course are requested to speak with me 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 325-3852 or TDD only 325-4173.

Academic Misconduct: All provisions of the Norman Campus Academic Misconduct Code shall apply in cases of academic dishonesty. Any violation of the Academic Misconduct Code will result in your removal from this course, and a grade of F will be recorded for the course. Academic misconduct is defined as "any act that improperly affects the evaluation of a student's academic performance or achievement." At the University of Oklahoma, academic integrity is expected from each student. Misconduct such as plagiarism, fabrication, and fraud, as well as attempting to commit such acts or assisting others in doing so, will not be tolerated. Students are responsible for knowing the OU Academic Conduct Code, which can be found at <http://www.ou.edu/studentcode> and <http://www.ou.edu/provost/integrity>



CLASSROOM ETIQUETTE

This is a large class, and as such it is imperative that everyone make an extra effort to respect others in the class. Students pay to be there - good students are there to learn. You are adults and are expected to behave as such. Below are some basic “rules” that I expect everyone to follow while in my class:

- You are expected to get to class on time. Coming late is a disruption. If you do come in late, please take the first available seat so as to minimize disrupting everyone.
- Come to class with the expectation of staying in class for the entire period. In the rare event that you need to leave class early, please make every effort to let me know prior to the beginning of class that you will have to leave.
- Please take care of all restroom trips either before or after class. In the rare event that you need to make an emergency trip to the restroom, please do so as quietly as possible.
- When in class, please be considerate by turning off cell phones and pagers, and turning down the volume on your laptop computer.
- Please do NOT engage in lengthy discussions with your neighbors. This is very distracting to everyone around you (not to mention rude).
- Clean up after yourself. If you are reading a newspaper before class, please be sure to take it with you and dispose of it properly when you leave class. The same goes for any food or drinks you bring to class – please make sure to clean up the area around you when you leave.
- Come to class with the intention of paying attention. Obvious reading of newspapers or other materials not relevant to the lecture will not be tolerated.
- Class ends when I dismiss the class. Please do not begin to pack your things until I have dismissed the class.

Following these simple, common courtesy rules will make the class a much more pleasant experience for everyone.



Tentative schedule (subject to change)

| Date | Topic | Text Chapter |
|--|---|---------------------------------------|
| WEEK 1 Jan. 19 Jan. 21 | Intro to class Origin of the atmosphere | Chapter 1 |
| WEEK 2 Jan. 26 Jan. 28 | Structure of Earth's atmosphere Winter weather | |
| WEEK 3 Feb. 2 Feb. 4 | Energy and energy balance Temperature | Chapter 2 Chapter 3 |
| WEEK 4 Feb. 9 Feb. 11 | The water cycle/moisture Clouds and fog | Chapter 4 |
| WEEK 5 Feb. 16 Feb. 18 | Stability Cloud development | Chapter 5 |
| WEEK 6 Feb. 23 Feb. 25 | Precipitation EXAM 1 | Chapter 5 Chapters 1-5 |
| WEEK 7 March 2 March 4 | Air pressure and winds | Chapter 6 |
| WEEK 8 March 9 March 11 | Atmospheric circulation El Niño-Southern Oscillation | Chapter 7 |
| WEEK 9 March 15-19 | NO CLASSES SPRING BREAK | |
| WEEK 10 March 23 March 25 | Air masses & fronts Mid-latitude cyclones | Chapter 8 |
| WEEK 11 March 30 April 1 | Thunderstorms Tornadoes | Chapter 10 |
| WEEK 12 April 6 April 8 | EXAM 2 Weather forecasting | Chapters 6,7,8,10 Chapter 9 |
| WEEK 13 April 13 April 15 | Hurricanes Significant storms in the U.S. | Chapter 11 |
| WEEK 14 April 20 April 22 | Air Pollution | Chapter 12 |
| WEEK 15 April 27 April 29 | Climate change | Chapter 14 |
| WEEK 16 May 4 May 6 | Atmospheric optics Tying up loose ends | Chapter 15 |
| FINAL EXAM | Monday, May 10, 1:30 – 3:30 pm Room A235 SEC | Comprehensive |