



METR 1014: Introduction to Weather & Climate Course Syllabus (Subject to Change) Fall 2009



Class time: MWF 11:30am-12:20pm, Room A235 SEC

Instructor: Tiffani Wilke, Meteorology Masters' Student

Email Address: twilke@ou.edu (put METR 1014 in subject line)

Office: SEC room 526

Alternate Office: National Weather Center (NWC) room 5325

Office hours: Mondays 10:20-11:20am and on Wednesdays from 12:30-1:30pm in room SEC 526, or by appointment

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

Co-requisite: Lab section

Texts: *Essentials of Meteorology: An Invitation to the Atmosphere*, by C. Donald Ahrens (prefer 5th edition, but 4th edition is OK),

Explorations in Meteorology: A Lab Manual

Materials: 2 separate notebooks or folders

-1 for notes

-1 for weather journal activities (This will be turned in twice throughout the semester. This means you need to keep track of your activities. If you lose them it is on you. You will be informed at least a week before they will be handed in.)

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 weather events and the job of a meteorologist.

It is NOT the aim of this course to make scientists out of all of you. I want 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 and ask questions regarding the topics presented. Although class attendance is not taken, activities for your weather journal will only be given during class and you will receive participation points for doing them. Therefore, if you are not present in class you will not be given credit for these activities. If you have a valid excuse for not attending class and you have cleared it through me, prior to class, you will be given the weather journal activity you missed. In addition to obtaining weather journal activities, you will get much more out of the course and have a much easier time with the material if you regularly attend class. There will be material presented in class that will not be in the textbook and this material will be on the exams. Even though I will post material on the D2L website, 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 encourage you to come and talk to me sooner rather than later. I am of the opinion that there is no such thing as a stupid

question. So please ask me! 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. In order to get the most out of any class, you **MUST** take an active role in your own education!

Course Grade Determination:

2 in-class exams @ 20% each (no drops)	40%
Homework/Weather Journals	15%
Final Exam	20%
Lab Section Grade	25%
Lab exercises:	15%
Lab quizzes:	10%

Note: lab grade will be made up of scores from lab exercises PLUS scores from 5 quizzes over lab material (1 will be dropped). Lab quizzes will be given during LECTURE class at times to be determined (they will be announced at least 1 week prior to the quiz)

Grading Scale

90-100%	A
80-89.5%	B
70-79.5%	C
60-69.5%	D
Below 59.5%	F

On the final class grade I will round up if you are at 89.5%, 79.5%, 69.5%, or 59.5% and higher. This means if your final grade is at 89.4% you will still get a B. Which means if you want a certain grade keep a close eye on your grade throughout the semester so you know how well you need to do in order to receive the grade you would like. And remember: I **DON'T GIVE OUT GRADES, YOU EARN THEM!!!!**

Homework:

There will be 3 homework assignments throughout the semester; however they will be large assignments. The due dates are labeled on your class schedule to help you budget your time. You will be given around a week and a half to do each of the homework assignments. Some questions will be straightforward and others will be more challenging.

Weather Journals:

These are short assignments (usually take 5-10 minutes to complete) that are given periodically throughout the semester. When you are given the assignment there will be a stamp on it. At the next class period I will come by and put a second stamp on it if you have it done (even if it isn't quite right). At two times during the semester I will collect your weather journals in a folder. Each of these will be counted as a homework grade! So as long as you come to class (or let me know you can't come and why) and attempt to do the activities you will get two free homework grades. So they are very important and a great grade booster!!!!

About the labs:

The labs associated with this class are designed to enhance your understanding of lecture material. I will do my best to coincide the lab activities with lecture. However there will be some material covered in lab that will not be discussed in class.

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. Of this, 15% will come from your lab exercises, and 10% will come from quizzes over lab material. Although the Teaching Assistants will make up the questions on these lab quizzes, the quizzes will be administered during the lecture time. There are no make-ups for these quizzes, unless your circumstance has been approved by me. You will typically have about 1 week's notice prior to a lab quiz.

Your Teaching Assistant will have more information for you when you attend your first lab.

PLEASE NOTE: Lab quizzes and weather journal activity announcements will ONLY be made IN CLASS. That is, they will NOT be posted on the Desire2Learn website. If you miss class, you miss the assignment. Homework will be posted on the Desire2Learn website and you will be given at minimum a week to complete each assignment. So plan your time wisely.

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://judicial.ou.edu/content/view/27/32/> 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.

Date	Topic	Reading Assignment	Lab
Week 1 Aug. 24 Aug. 26 Aug. 28	Introductions Weather Climate Basics/Earth System Early Atmos./Atmos. Composition/ Atmos. Layers	pg 13-22 pg 1-13	NO LAB!! YAY!!
Week 2 Aug. 31 Sept. 2 Sept. 4	Reasons for Seasons Temperature and Energy Transfer Radiation/Greenhouse Effect	pg 43-51 pg 26-31 pg 31-43	All lab sessions will do lab #1 North American Geography
Week 3 Sept. 7 Sept. 9 Sept. 11	Labor Day No class!!! Have fun! Temperature Variations Water Cycle/Humidity	pg 55-75 pg 79-91	Monday lab session will not meet Tuesday and Thursday lab sessions will do Dimensions/Units lab
Week 4 Sept. 14 Sept. 16 Sept. 18	Water Cycle/Humidity Atmospheric Pressure/Forces Forces	pg 79-91 pg 141-165 pg 172-183	Monday lab sessions will do Dimensions/Units lab Tuesday and Thursday lab sessions will do lab #2 Earth-Atmosphere System
Week 5 Sept. 21 Sept. 23 Sept. 25	Wind (Homework 1 due) Wind/Air Masses Fronts	pg 172-183 pg 203-214 pg 214-222	Monday lab sessions will do lab #2 Earth-Atmosphere System Tuesday and Thursday lab sessions will do lab #3 Radiation and Energy Transfer
Week 6 Sept. 28 Sept. 30 Oct. 2	Atmospheric Circulations Atmospheric/Oceanic Circulations EXAM 1	pg 169-172 & 184- 192 pg 192-200	Monday lab sessions will do lab #3 Radiation and Energy Transfer Tuesday and Thursday lab sessions will do lab #4 Daily Temperature Cycle
Week 7 Oct. 5 Oct. 7 Oct. 9	Atmospheric/Ocean Circulations Middle-Latitude Cyclones Soundings and Stability	pg 192-200 pg 222-231 pg 111-117	Monday lab sessions will do lab #4 Daily Temperature Cycle Tuesday and Thursday lab sessions will do lab #5 Atmospheric Moisture
Week 8 Oct. 12 Oct. 14 Oct. 16	Soundings and Stability Cloud Development/Cloud Identification NO Class GO OU!!!	pg 11 (The Radiosonde) pg 117-120	Monday lab sessions will do lab #5 Atmospheric Moisture Tuesday and Thursday lab sessions will do Atmospheric Motion lab
Week 9 Oct. 19 Oct. 21 Oct. 23	Cloud Identification/Fog Precipitation Processes (WJ due) Precipitation Types	pg 93-108 pg 121-126 pg 126-137	Monday lab sessions will do Atmospheric Motion lab Tuesday and Thursday lab sessions will do lab #6 Air Masses/Fronts

Week 10 Oct. 26 Oct. 28 Oct. 30	Lake Effect Snow (Homework 2 due) Lake Effect Snow/Thunderstorms Thunderstorms	pg 207 (Lake Effect Snow) pg 263-270	Monday lab sessions will do lab #6 Air Masses/Fronts Tuesday and Thursday lab sessions will do lab #7 Surface Map Analysis
Week 11 Nov. 2 Nov. 4 Nov. 6	Thunderstorm Hazards Thunderstorm Hazards EXAM 2	pg 270-283	Monday lab sessions will do lab #7 Surface Map Analysis Tuesday and Thursday lab sessions will do Mid-Latitude Cyclone Lab
Week 12 Nov. 9 Nov. 11 Nov. 13	Tornadoes Tornadoes Hurricanes	pg 283-293	Monday lab sessions will do Mid-Latitude Cyclone Lab Tuesday and Thursday lab sessions will do Atmospheric Stability Lab
Week 13 Nov. 16 Nov. 18 Nov. 20	Hurricanes Forecasting Severe Weather Forecasting	pg 299-324 pg 235-260 pg 293-296	Monday lab sessions will do Atmospheric Stability Lab Tuesday and Thursday lab sessions will do Thunderstorms Tornadoes Lab
Week 14 Nov. 23 Nov. 25 Nov. 27	Global Climate NO CLASS Happy Thanksgiving! NO CLASS	pg 353-402	Monday lab sessions will do Thunderstorms Tornadoes Lab Tuesday and Thursday lab sessions will not meet
Week 15 Nov. 30 Dec. 2 Dec. 4	Global Climate/Climate Change Climate Change Climate Change (Homework 3 due)	pg 402-411	All lab sessions will do lab # 13 Hurricane Tracks & Forecasts
Week 16 Dec. 7 Dec. 9 Dec. 11	Combating Climate Change Combating Climate Change Atmospheric Optics/Evaluations (WJ due)	pg 415-433	COMET LAB on Climate Change due (Lab Sessions don't meet!!!)
FINAL EXAM	Thursday December 17th, 1:30 - 3:30 p.m. Room A235 SEC		