



## METR 1014: Introduction to Weather & Climate Course Syllabus Fall 2014

**Class times:** M, W 6:00pm – 7:20pm

**Class location:** Adams Hall 0255

**Instructor:** Ethan Cook

**Grader:** Jeffrey Milne

**Office:** SEC 422

**Office:** SEC 410

**Alternate Office:** NWC 5345

**Email:** milne.jeffrey@gmail.com

**Email:** [ecook@ou.edu](mailto:ecook@ou.edu)

**Office Hours:** TBD

**Office hours:** 1:30pm - 3:30PM M; SEC 422 or  
by appointment at the NWC office

**Course web page:** <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, 6<sup>th</sup> ed. **and, for your lab section:** *Explorations in Meteorology: A Lab Manual*

### Course Grade Determination:

2 in-class exams @ 15% each (no drops)	30%
Assignments/pop quizzes	20%
Comprehensive Final Exam	25%
Lab Section Grade	25%

**About this course:** Meteorology 1014 is a qualitative survey course of weather and climate for non-meteorology majors. 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.

The course is not intended to make scientists out of you, but it should help you gain a basic understanding of the atmosphere and to develop critical thinking skills so that you can understand and have principled discussions about newspaper and magazine articles related to weather and climate.

Please 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 textbook. I will make every effort to post lecture presentation slides on the course web site, however, these will tend to *outline* lessons rather than list all the specific information I present in the lectures. **You will need to take notes.** Besides that, you will comprehend the material more completely if you are actually in class when it is presented.

If you are having problems with the course material, I 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.

Education is a two-way street – I can only present the material and facilitate discussion, but you must bring to class 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 Lab instructor 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>

***Tentative schedule (subject to change)***

<b>Date</b>	<b>Topic</b>	<b>Text Chapter</b>
<b>WEEK 1</b> Aug. 18 – Aug. 22	Intro to class/course expectations Origin of Earth/Origin of atmosphere	Chapter 1
<b>WEEK 2</b> Aug. 25 – Aug. 29	Structure of Earth's atmosphere Energy and energy balance	Chapter 1 Chapter 2
<b>WEEK 3</b> Sept. 1 – Sept. 5	Solar energy <b>No Class Sept. 1</b>	Chapter 2 Chapter 3
<b>WEEK 4</b> Sept. 8 – Sept. 12	Temperature The water cycle/moisture	Chapter 4
<b>WEEK 5</b> Sept. 15 – Sept. 19	Clouds and fog Stability & cloud development	<b>Chapters 1-4</b> Chapter 5
<b>WEEK 6</b> Sept. 22 – Sept. 26	Precipitation <b>Wed., Sept. 24 - EXAM 1</b>	Chapter 5
<b>WEEK 7</b> Sept. 29 – Oct. 3	Atmospheric pressure Atmospheric forces	Chapter 6
<b>WEEK 8</b> Oct. 6 – Oct. 10	Local Winds Global circulation / El Niño-Southern Oscillation	Chapter 7
<b>WEEK 9</b> Oct. 13 – Oct. 17	Air Masses, Fronts	Chapter 8
<b>WEEK 10</b> Oct. 20 – Oct. 24	Mid-latitude cyclones	Chapter 8
<b>WEEK 11</b> Oct. 27 – Oct. 31	Weather Forecasting <b>Wednesday, Oct. 29 - EXAM 2</b>	Chapter 9 <b>Chapters 5-8</b>
<b>WEEK 12</b> Nov. 3 – Nov. 7	Thunderstorms Tornadoes	Chapter 10
<b>WEEK 13</b> Nov. 10 – Nov. 14	Tornadoes Hurricanes	Chapter 10 Chapter 11
<b>WEEK 14</b> Nov. 17 – Nov. 21	Earth's Climate	Chapter 12
<b>WEEK 15</b> Nov. 24 – Nov. 28	Climate Change <b>No classes Nov. 26 – Nov. 30</b>	Chapter 13
<b>WEEK 16</b> Dec. 1 – Dec. 5	Climate Change <b>Wed. Dec. 3 – COMPREHENSIVE FINAL EXAM</b>	Chapter 13 <b>Chapters 1-13</b>