

Syllabus

Weather and Climate Laboratory
METR 1014-013
Fall 2013
Tuesday; 6:30-8:20; SEC P209

Laboratory Instructor: Conor Mc Nicholas

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Office: Sarkeys Energy Center, Room 410

Office hours: Tuesday 5:30-6:30

If you have a conflict with my scheduled office hours, or a question arises that you would prefer to discuss sooner than them, please e-mail me. I will do my best to respond in a timely manner.

Course Description:

This lab will cover a wide range of topics about weather and climate and serves as a complement to the material covered in the METR 1014 lectures.

Course Goals: 1) To gain an understanding of how material presented is used in real world applications and 2) to gain hands-on experience using some of the methods and techniques used in weather and climate studies.

Course Materials:

Text: C. Donald Ahrens, *Essentials of Meteorology: An Invitation to the Atmosphere*, (We will not be directly using the textbook in class, however it is highly recommend that you bring the textbook to class as it will serve as a valuable reference text for your lab assignments)

Weekly Labs: printed off from D2L website prior to the beginning of class

Other lab Supplies: colored pencils, calculator

Laboratory Expectations:

Each student is required to do their own lab and turn in a lab report. Discussion of the lab concepts amongst your classmates is encouraged, however you are expected to come up with your own answers to the questions asked. Late lab reports will not be accepted unless there are extenuating circumstances that have been brought to my attention and cleared. If extenuating circumstances arise and have been cleared, the lab must be made up **within a week** of the missed class period.

Attendance

Attendance in lab session is MANDATORY. Attendance will not be taken, but I will know who is there by who turns in their lab. Labs may not be turned in by a friend. In order to turn in a lab, you must hand it in yourself.

If you need to miss a lab due to athletic or religious reasons please inform me as soon as possible, but by **no later than one week prior to the missed class**. It may be possible for you to attend an alternate lab session, but this first must be cleared with the proper teaching assistant. I understand that sometimes you will need to miss a lab due to illness or unavoidable circumstances (ex. a family emergency) and will not be able to provide the required one week notice. Please let me know as

soon as possible before class and other arrangements can be made for you to receive credit for your lab.

Unexcused absences are not tolerated. If you miss a class and fail to notify me before class begins, you will receive a zero for the day and will not be allowed the opportunity to make it up at a later date.

Lab Structure

We will start each lab promptly at the stated starting time. Please make your best effort to arrive on time, not only because walking in late disrupts the class, but also because you could miss important class instructions, quizzes, and announcements.

Be sure to come prepared. This means bringing a pencil, eraser, calculator, and sometimes colored pencils to each class. You must also print out and bring your lab manual to every lab. Lab manuals will be available on D2L. I will not accept a loose-leaf sheet of paper with the answers written on it. If you fail to bring your lab manual to class, you will miss valuable class time and will have to go to the Youngblood Energy Library to print out the lab manual yourself. So, please **print out and bring your lab manual to every lab!**

I will give a brief introduction to each lab before you start on your assignment. This is a good time to ask questions if you have any. However, I always welcome and encourage questions as you complete your labs during the class period.

Labs are to be completed in class only. The two hours allotted to class should be sufficient to complete each lab, so please use your time effectively. Labs are due at the end of each lab period.

DO NOT WORK ON THE LAB EXERCISE BEFORE CLASS!! This will be considered a form of cheating, and will result in a score of zero on that particular lab.

Make-Up Work

If you have an excused absence and need to make up a lab, you have exactly one week to complete it without penalty. Otherwise, the grade for the lab will be recorded as a zero. You must meet me during my office hours to finish any make-up work; however, in extreme circumstances I will allow you to make an appointment to meet with me outside of office hours at my SEC Office (Rm. 410). When you come to office hours to complete a lab, please arrive when they begin. You will most likely require the entire hour to finish your work, so the earlier you start, the better chance you'll have of making it through the lab.

Grading

Lab exercises	60%
Lab quizzes	40%

Your final lab grade will account for 25% of your total grade in the course. The labs will be graded for the most part on accuracy. At the end of the semester, I will drop your lowest lab percentage grade.

There will be a total of 5 quizzes over lab material throughout the semester. They will be announced and discussed in class the week before they are given.

Correspondence:

When sending me e-mails, please use your OU e-mail address and put METR 1014 Lab in the subject line. I receive many e-mails and this will ensure that yours are read before the others.

Classroom Courtesy:

Cell phones, pagers, and watch alarms should be turned off or put to silent before coming to lab.

Desire2Learn Website:

Desire2Learn (D2L) will be used in this lab for posting grades, lab notes, and other important information. You can find this at <https://learn.ou.edu>. Please check it regularly for announcements.

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. You may contact the office at 405-325-3852 (voice) or 405-325-4173 (TDD).

Academic Misconduct

Cheating will not be tolerated and will be reported. No exceptions, no excuses. Those found cheating will be penalized under the OU Academic Misconduct Code, which can be found at <http://www.ou.edu/provost/integrity>. In short, if you cheat, expect to be removed from the course and to receive an F for the course.

Fall 2013 Lab Schedule

This list is not finite and is subject to change

Week 1: No lab

Week 2: North American Geography

Week 3: Dimensions and Units

Week 4: Vertical Structure of the Atmosphere

Week 5: The Surface Energy Budget

Week 6: Temperature Patterns

Week 7: Saturation & Atmospheric Stability

Week 8: Atmospheric Motion

Week 9: Atmospheric Moisture

Week 10: Advection and Global Circulation

Week 11: Air Masses, Fronts, and Midlatitude Cyclones

Week 12: Surface Map Analysis

Week 13: Thunderstorms and Tornadoes

Week 14: **THANKSGIVING BREAK—NO CLASS!!! :)**

Week 15: Hurricanes

Week 16: COMET module Climate Change: fitting the pieces together