METR 2011 – Introduction to Meteorology I Laboratory
Syllabus: Spring 2013

Instructor: Jennifer (Jen) Newman
Office: NWC 5240
Office Hours: TBA, NWC 5240. Please feel free to stop by whenever my office door is open! Additional office hours may be scheduled in the Linux Lab for programming assignments.
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Section 011	M	4-6 pm	NWC 5720

Content:
This lab will complement but not necessarily follow the lecture material in METR 2013 directly. Special emphasis will be given to utilizing computational tools such as MATLAB to study the atmosphere.

The Official Description from the OU Catalog:
Reinforces the theoretical concepts provided in the counterpart lecture course Meteorology 2013, which introduces students to important phenomena and physical processes that occur in the earth's atmosphere. Through a series of laboratory exercises, students will learn the basic concepts and tools that are used to study atmospheric problems. Special emphasis will be placed on developing information technology and computational skills. The laboratory exercises target the topics covered in the lecture component.

Goals:
By the end of the semester, I hope all of the students will:
1) Feel comfortable interpreting weather graphics and writing basic forecasts.
2) Know how to write and execute basic computer scripts.
3) Learn how to manipulate formulas in order to answer questions.

Text:
There is no required textbook for this class. Lab handouts will be given out every week, so I recommend you use a folder or binder to keep your handouts.

Grading Scale:

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

(Tentative) Class Schedule:

Week	Topic	Fun Stuff
Week 1: 1/14	Introductions/Syllabus and Lab 1: Conversions/Units/Dimensions	-
Week 2: 1/21	NO LAB (MLK Day)	-
Week 3: 1/28	Lab 2: Linux and HTML	Linux Comics
Week 4: 2/4	Lab 3: METAR and Station Plots	METAR Jeopardy (cooler than it sounds?)
Week 5: 2/11	Lab 4: Surface Map Contouring	Guest speaker from SPC or NWS
Week 6: 2/18	Lab 5: Radiation	Global Energy Balance Model
Week 7: 2/25	Lab 6: Satellite Observations	Rooftop Observations
Week 8: 3/4	Lab 7: Radar	OU-PRIME Tour
Week 9: 3/11	Lab 8: Atmospheric Moisture	Saturation Experiment
Week 10: 3/18	NO LAB (Spring Break)	-
Week 11: 3/25	Introduction to MATLAB	MATLAB!
Week 12: 4/1	Lab 9: Atmospheric Stability	-
Week 13: 4/8	Lab 10: Soundings	00Z Radiosonde Launch
Week 14: 4/15	Lab 11: Surface Measurements	Outdoor Measurements
Week 15: 4/22	Lab 12: Severe Weather Parameters	Guest speaker from SPC
Week 16: 4/29	Lab 13: Winter Weather	

Grading:

13 Lab Assignments	60%
12 Weekly Quizzes	20%
9–12 Forecast Discussions	20%

Lab Assignments: Lab assignments must be turned at the beginning of the next lab class. The only exceptions will be for extenuating circumstances (i.e. family emergency, hospitalization, etc.) when I am notified at least 24 hours in advance. **Lab assignments turned in late will be deducted 10% for every day past the due date. I will not accept labs that are more than a week late.**

Weekly Quizzes/Attendance: At the start of every lab, there will be a short 10-15 minute quiz covering the previous week's lab topics. If you need to miss a lab for extenuating circumstances, then talk to the lab instructor for making up lab work and quizzes. Unexcused labs will result in a 0% for quizzes.

Forecast Discussions: Most weeks, we will complete a brief forecasting exercise after the quiz, unless we have a guest speaker or special event that day. I will give you 15 minutes to look up weather maps and forecasting models on the internet. You will be given a forecasting worksheet to fill out which will guide you through the forecast process. I will help you interpret weather maps and models and will collect the forecasting worksheets at the end of the exercise.

Extra Credit — Weather Briefings: You may present a weather briefing in front of the class for a maximum of 5 points added to your final lab grade. You are allowed to present the weather briefing with a partner, but I expect ~5 minutes of discussion for each person in your group.

Extra credit may also be given for the computer programming assignments later in the semester. More information will be given when these assignments are given out.

Web Page: This course has a web page located at: https://learn.ou.edu. All grades and handouts will be posted on the class website. Please let the instructor know if you need help accessing the materials on D2L.

Academic Misconduct:
Academic misconduct is a serious breach of ethics since it potentially can harm those students who are honestly pursuing their studies. All instances of alleged academic misconduct will be thoroughly investigated and action taken under the official university policies. 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.

You are allowed to work with fellow classmates on any and all lab assignments; however, each and every lab must be your *own* work with your *own* write-up. Any copying is strictly prohibited and will result in a zero on that assignment and the loss of any extra-credit opportunities for the entire semester. If this behavior continues, immediate action will be taken to report the student for academic misconduct.

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 professor 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 TDD only 405/325-4173."