De Anza College Physical Science, Mathematics & Engineering Division Meteorology 10L, Meteorology Laboratory

Section(s): 45779, Spring, 2019

Instructor: Terrence J. Mullens (Preferred Pronouns: He/Him/His)

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Office Location S48A

Office Hours(in S48A): M/W: 1:00-1:50pm, T/Th: 10:30-11:20am, and by appointment

Class Days/Time: T/Th 11:30-12:45pm

Classroom: S48

Prerequisites: Met 10 (Can be taken concurrently)

Introduction

This syllabus is like the "Terms of Service" that you agree to when you download iTunes or anything else off the internet. However, this is much shorter (and with less legal jargon) and I actually expect you to read it! Your continued enrollment is your agreement to abide by the terms and conditions outlined in this syllabus.

Course Description

Welcome to the wonderful world of Weather! But instead of just talking about it, we'll get to see it in action. In this class, you'll get to work with the many data products, graphics and instruments that real life meteorologists use to forecast and understand the weather. Laboratory assignments will use information gathered from the American Meteorological Society's Online Weather Studies website. Information regarding how to access the website will be given on the first day of class.

Course Website and Communication

Everything you need for this course (Syllabus, Assignments, Lectures, etc.) can be found on the course page which can be accessed through Canvas. I will also make all communication (announcements/reminders, emails, etc) through the Canvas webpage. Please enable your Canvas settings to receive notification when an announcement is posted.

Textbook and Course Materials:

AMS Weather Studies eManual (ISBN: **978-1-944970-28-4**), which can be purchased at https://edubooks.ametsoc.org/WXIM-18. Because of the price I strongly recommend picking a lab partner or two and splitting the cost of one book with them to save money.

WARNING: YOU NEED THIS BOOK BY THE SECOND WEEK OF THE COURSE

In the Classroom/Class Rules

Assignments: This class will consist of six modules. Each module will consist of a module discussion forums, four laboratory exercises (each lab will have a video demonstration), and a quiz. Expect each module to take approximately 6 hours, not including time spent studying/preparing for the class. We will do one module every two weeks. The module will be posted no later than 12am the Monday of the first week and due by 11:59pm the Friday of the second week. In order to be prepared for the module quiz, I strongly recommend that you complete the module discussion and laboratory exercises PRIOR to attempting the module quiz.

Participation: In addition to the Laboratory Activites and Module Quizzes, 50 points of your grade are determined by attendance participation in class. I will take attendance at the beginning of each class session via a participation question, which will count towards your grade. Please note that if you need to miss class for any reason, you may still submit your work online and makeup missed participation by participating in the Online Class' discussion forum.

OPTIONAL Online Work: While attendance in this class is still required (by College and State regulations), all of the coursework is done and submitted online. As such, I am happy to offer flexibility to those of you who would like the option of participating in the course digitally at times. Missed attendance can be made up by participating in the Online Class' discussion forum (as mentioned above). Please note that any arrangements to participate digitally must be discussed and approved by me.

A Word of Warning: While you are free to work on the labs at your leisure, I strongly urge you to not wait until the last minute to submit a lab investigation or quiz. If anything causes you to submit any module activity after the stated deadline, regardless of reason, you will still be assessed a late penalty. Also, you are completely responsible for making sure that your work is submitted properly.

Cell Phone Policy: If I catch you browsing on your phone during class, I will ask you to leave for the day, and you will forfeit any participation points for that day.

Issues/Grievances: While I try my best to make this class a positive learning environment, there is always the chance that either something I or someone else in class does might not sit well with you; if that is the case, I am more than happy to hear any grievances in private. I've found that 99.9% of any issues that arise are easily settled (and to everyone's satisfaction) by a brief conversation.

Lab Partners: In this class, you have the choice of either working on lab assignments on your own, or in groups of 2 or 3 (to save money on the lab manual). However, each person must submit their own lab assignments, and may not work together on quizzes.

Assignments and Grading

Laboratory Assignments (22 @ 25 points each, lowest 2 dropped)	500 pts
Participation	50 pts
Module Quizzes (6 @ 50 points each, lowest dropped)	250 pts
Total	800pts

Grading Scale:

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>720 = A, 640-719 = B, 520-639 = C, 440-519 = D, < 440 = F
+/- grades are assigned when a grade is within 16 points (2%) of the next grade.
Note: I reserve the right to adjust this scale, but only to benefit you.
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Laboratory Assignments: Each module will consist of four laboratory investigations from the Weather Studies Investigation Manual. The labs will be submitted using an online form. Because each laboratory assignment has a different number of questions, I scale each assignment to a point total of 25 (so that one lab doesn't carry a larger or smaller weight than another). All laboratory assignments are due at the end of the respective module, unless I announce an alternative due date.

Late Work/Makeup Policy: You can submit work up to two days after the deadline, with a 10% per day late penalty. I will drop your two lowest labs, your lowest quiz, and your lowest discussion forum.

Returned Work: It is your responsibility to hold on to any returned work until the conclusion of the quarter. In the event I made an error in your grade, you may need to present the assignment to me for verification.

Dropping

I will drop you if:

- You miss more than four on-campus class sessions (without prior arrangements to make up your absence).
 - -or-
- You miss more than two module quizzes.

Otherwise, if you choose to drop the class, you must do so on your own.

The Deadline to Drop this class with a W is Friday, May 31st

Other Policies

Disabilities: If you need any accommodation due to a disability (note taker, etc.), please don't hesitate to let me know and I'll be happy to help! All accommodations will need to be made through Disability Support Programs and Services (DSPS), which is located at RSS-141, or online at https://www.deanza.edu/dsps/.

Academic Integrity: I will NOT tolerate cheating or plagiarism of any kind! This includes submitting work under a fake name in order to get answers prior to submitting your work. While you're allowed (actually, encouraged) to work together on labs, you must turn in your own answer sheet, and in your own words! The first offense

results in a grade of "0" on the assignment and a stern warning. Any subsequent offense results in a report filed with the dean's office.

Final Grade Changes: At the end of every term, almost without fail, at least one or two students approach me to ask for additional work/some leeway with their grade to earn a higher grade. While I appreciate the gravity that grades can have, I need to both be fair to the rest of the class (I don't think other students would appreciate it if I just bumped another student's grade without merit, or gave them extra work without making it available to the rest of the class) and maintain my own academic integrity (i.e. I can get in trouble for awarding grades that were not earned), so I must deny all requests for a higher grade, except in instances where I made a mistake. However, I am more than happy to help you earn a good grade if you reach out to me for help before the end of the term. There will also be plenty of extra credit during the course.

Course Schedule

Date	Topics, Readings, Assignments, Deadlines
	Module 1: Introduction to the Course
4/9-4/11	Lab 0A/0B: Introductory Labs (Procedures/Resources/Maps)
4/16-4/18	Lab 1A/1B: Air Pressure and Wind
	Module 1 Quiz, Due by 11:59pm 4/19
4/23,4/25	Module 2: Surface/Upper Air Weather
4/30, 5/2	Lab 2A/2B: Surface and Upper Air Weather, due
	Lab 3A/3B: Radiation/Seasons
	Module 2 Quiz, Due by 11:59pm 5/3
5/7, 5/9	Module 3: Air Temperature and Air Pressure
5/14, 5/16	Lab 4A/4B: Air Temperature and Degree Days
	Lab 5A/5B: Frontal Passages and Vertical Air Pressure
	Module 3 Quiz, Due by 11:59pm 5/17
5/21, 5/23	Module 4: Stability and Precipitation
5/28, 5/30	Labs 6A/6B: Stuve Diagrams and Rising Air
	Labs 7A/7B: Precipitation and Doppler Radar
	Module 4 Quiz, Due by 11:59pm 5/31
6/4, 6/6	Module 5: Atmospheric Circulations
6/11, 6/13	Labs 8A/8B: Surface and Upper-Air Winds
	Labs 9A/9B: Global Circulations: Jet Stream and El Nino
	Module 5 Quiz, Due by 11:59pm 6/14
6/18, 6/20	Module 6: Severe Weather
6/25	Labs 11A/11B: Thunderstorms and Tornadoes
	Labs 12A/12B: Hurricanes
	Module 6 Quiz, Due by 11:59pm 6/28.

NOTE: This schedule is tentative and <u>Subject to Change</u> for any reason (and it probably will)!

Student Learning Outcome(s):

*Assess and defend the analysis and decision-making skills employed by meteorologists to diagnose air patterns, understand air motions and predict future atmospheric conditions.