

De Anza College
Physical Science, Mathematics & Engineering Division
Meteorology 10, Weather & Climate Processes

Section(s):	34892 Winter 2020
Instructor:	Terrence J. Mullens (Preferred Pronouns: He/Him/His)
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Office Location	S48A
Office Hours (in S48A):	M/W: 11:30am-12:20pm, T/Th: 11-11:50am, and by appointment
Class Days/Time:	Mon/Wed 12:30-2:45pm
Classroom:	S34
Prerequisites:	None (Some basic math skills may be helpful)

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 I actually expect you to read it! Our first quiz will be heavily based off of 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! This course will cover all of the fundamental concepts behind the weather we see in our everyday lives. This includes atmospheric structure/composition, heat and radiation, forces that affect wind, humidity, atmospheric stability, precipitation and clouds, extreme weather and climate change. We’ll also cover areas of interest such as the California Drought, El Nino/La Nina, Fire Weather, and potentially any major weather events that occur during the quarter.

Course Website

Everything you need for this course (Syllabus, Handouts, Lectures, etc.) can be found on the course page which can be accessed through Canvas.

Textbook and Course Materials:

Recommended Textbook: “Essentials of Meteorology” by C. Donald Ahrens 7th edition

Required Materials: Composition Notebook (due by Monday, September 30th)

Contacting Me:

If you need to get a hold of me for any reason, you can email me directly at mullensterrence@fhda.edu, or via the messenger on Canvas. I check my email often during business hours, less often at nights/weekends (please don’t feel discouraged if I don’t immediately reply to an email sent at 2:30am). **If, you do not hear from me within 24 hours (48 hours on the weekend), please re-send your email.**

All announcements/reminders/class-wide communication not made in-class will be done through Canvas. Please make sure that you update your settings on Canvas to have announcements emailed to you if you don't check Canvas often (you should still check Canvas often)! Also note that it is your responsibility to stay on top of assignments and deadline... while I try my best to send out reminders often, a lack of a reminder isn't a valid excuse for missing work (just like in the working world). Once I announce any assignment/deadline in class, any additional reminders (with the exception of necessary changes) are a courtesy.

In the Classroom/Class Rules

Respect: I expect everyone to respect me and everyone else! This means that I will not tolerate commotion between neighbors or any activity that is disruptive. I will give you ONE warning and then ask if to leave if any of the above issues happens again (if this happens, you also lose any participation credit for the day).

Cell Phone Policy: If I catch you browsing on your phone during class, I will tell you "please put your phone away." If I catch you again, I will ask you to leave for the day, and you will forfeit any in-class assignment points for that day. **This is becoming a more serious issue as each quarter passes, so I WILL BE ENFORCING THIS!** You are not allowed to use your phones in the movie theater... so you certainly aren't allowed to use them here! You have been warned!

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. With that said, be respectful and professional when approaching me about any issues that arise; grievances aired in a rude and disrespectful manner won't be considered, and won't help your case.

Attendance/Punctuality: Attendance will be taken in each class session via a participation question at the beginning of class, which will be worth 2 points. **Students who are late may make up the participation question at the end of the class, but will only get half the possible points. Two late submissions will count as an absence for dropping purposes (see section on dropping*).** I also reserve the right to assign a pop quiz if I feel that attendance or punctuality is becoming an issue. While most (if not all) class sessions will end on time, there may be a time or two where class runs a minute or two late. If you must leave immediately at the scheduled end time, you are more than free to do so without penalty. However, I ask that if you must leave, that you do so quietly and respectfully.

Leaving Class Early: While I understand that 2hrs and 15mins is a long time (we used to offer 50minutes/day sections of this class, but no one was signing up for them), I expect you to be present for the entire class session. About half way through the class, we'll take a short 10 minute break... however, this break is by no means a "Thanos Snap" (if you haven't seen Avengers Infinity War, you probably don't know what I mean here), and so with the rare exception/emergency, I expect you to return. I will try my best to make the

entire class engaging and enjoyable, but it takes two to tango and so I rely on you to participate and be engaged in class the whole time. If I notice that a large number of people are not returning at the break, I reserve the right to institute increasingly draconian measures (such as pop quizzes, moving classwork to the second half of the session, and even good old attendance taking).

My Expectations (how to get an “A” in this class):

1. Attend every (or almost every) class session, and be on time, or reach out to me if you have to miss. While in class, be fully present (i.e. not on your phone/tablet).
Also, know that if you need to miss class, you are still responsible for any material that you missed that day!
2. Put in the work, and briefly (15-20 minutes) review after each class.
3. Reach out when you need help or something is wrong; I’m happy to help!
4. Accept constructive criticism/feedback. When I took Met 10, I didn’t get a perfect score on everything... but I learned/grew from it.
5. Become less focused on the points and more focused on the POINT! Students who take an interest in the class almost always get A’s.

Assignments and Grading

Participation Questions...	approx. 50 pts
In-Class Activities	approx. 75pts
Homework Assignments...	100 pts
Field Exercises (6 @ 10pts each, I drop your lowest one)...	50 pts
Quizzes (4 @ 25 points each, lowest dropped)...	75 pts
Midterm Exam...	100 pts
Final Exam...	100 pts
Total...	approx. 550 pts

Grading Scale:

> 90% = A, 80% = B, 65% = C, 55% = D, < 55% = F

+/- grades will be assigned when a grade is within 2% of the next grade level

Note: I reserve the right to adjust this scale, but only to benefit you.

In-Class Activities and Participation Questions: Throughout the quarter, we’ll be doing numerous in-class activities that will be submitted in your composition notebook. These activities include group and individual assignments that will build on in-class discussions. These are designed to be low-risk, high-reward activities to help you go deeper in your understanding of course material. Some “lecture” will be assigned as homework to free up in-class time for more engaging activities.

Homework: There will be a homework assignment each week! Each week, there will either be an activity or brief video/quiz. These assignments will be assigned and completed online through the Canvas Learning Management System.

Field Exercises: Approximately once every two weeks, we’ll go outside and, using various weather instruments, gain experience measuring weather conditions (Hey, this is a weather class... what fun would it be if we only stayed inside?)

Midterm Quizzes: There will be four quizzes on the last day of even weeks (2, 4, 8, and 10), one midterm (week 6), and one comprehensive final exam. The quizzes will consist of 15 multiple choice/true-false questions, fill in the blank questions, and one or two short answer questions. I will drop your lowest midterm quiz, but will not drop the midterm exam or the final! You'll need 6 scantron form 882-E sheets.

Late Work/Makeup Policy:

1. Quizzes/Midterms: Any Exam Makeups need to be arranged with me in advance, and will result in a 20% deduction (5 points for a quiz, 20 points for an exam), regardless of reasons. Otherwise, I will NOT grant any makeups!
2. Homework: I will accept homework up to two days late, with a 10% per day (or part of a day) late penalty.
3. In-Class Work: Makeups for in-class assignments are granted only when the absence was due to a documented emergency.

Grading Rubric: For information regarding how I grade assignments, please see the rubric in the appendix of this syllabus.

Returned Work: Once I return an assignment to you, it is your responsibility to hold on to it until the conclusion of the quarter in case a mistake is made with your final grade.

Important dates/deadlines:

Deadline to Add: 1/18

Deadline to Drop with Refund: 1/19

Pass/No Pass Deadline: 1/31

Deadline to Drop with a W, 2/28

Midterm Exam: 2/12

Final Exam: 3/25 at 11:30am in S34

Holidays: 1/20 (Martin Luther King Day), 2/14-2/17 (Presidents Day)

Dropping

I will drop you if:

- You miss more than 3 class sessions* (2 late arrivals or early departures count as a missed class) -or-
- You miss more than two quizzes.

Otherwise, if you choose to drop the class, you must do so on your own (or be awarded a grade of FW, which is treated as an F)

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 copying stuff off the internet!** While you're allowed (actually, encouraged) to work together on assignments, you must turn in your own paper, 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.

Safety: Nothing we do in this class will involve using potentially hazardous materials. However, even the safest of situations can quickly become unsafe in either the event of an emergency or when a student is acting disruptively. In the latter case, any unsafe behavior will not be tolerated! In the event of an emergency, whether natural or man-made, we will shelter in place unless it is unsafe to do so, in which case we will evacuate AS A CLASS to the Football Field. For more information on campus safety, visit <http://www.deanza.edu/emergency/>.

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

Week	Dates	Topics, Readings, Assignments, Deadlines
1	1/6, 1/8	Chapter 1: Introduction to the Course, Weather vs. Climate, The Atmosphere
2	1/13, 1/15	Chapter 2: Temperature and Heat, Radiation Laws, Seasons, <i>Quiz #1</i>
3	1/22	<i>No Class Monday, 1/20</i> Chapter 3: Everything you need to know about Air Temperature
4	1/27, 1/29	Chapter 4: Water Cycle, Humidity, and Clouds, <i>Quiz #2</i>
5	2/3, 2/5	Chapter 5: Stability and Cloud Formation
6	2/10, 2/12	Chapter 5 (con't): Precipitation <i>Midterm Exam</i>
7	2/19	Chapter 6: Air Pressure, Why the Wind Blows <i>No Class Monday, 2/17</i>
8	2/24, 2/26	Chapter 7: Global Circulation, El Nino/La Nina, CA Drought Chapter 8: Air Masses, Fronts and the Norwegian Cycle, <i>Quiz #4</i> <i>Deadline to Drop with a "W": 11/15</i>
9	3/3, 3/5	Chapter 10: Extreme Weather, Part 1: Thunderstorms and Tornadoes, Chapter 11: Extreme Weather, Part 2: Hurricanes, Fire Weather and Other Extreme Weather
10	3/10, 3/12	Chapters 12 and 13: Global Climate Change, <i>Quiz #5</i>
11	3/17, 2/19	Chapters 12 and 13: Global Climate Change and Review for Final
12	3/26	<i>Final Exam in same room as our class: 3/26 at 11:30am</i>

NOTE: This schedule is tentative and Subject to Change for any reason!

Appendix to Syllabus

Grading Rubric: While each assignment/exam/activity is different, I always use the following guidelines when I award points (I don't "take points off," I award points):

The maximum number of points are awarded for work that is:

1. Clearly written and answers the question.
2. Detailed and thorough, leaving no doubt that you understand the material.
3. Submitted following directions and is on time.
4. Accurate (aka your answer is correct)

A reduction in the number of points awarded (aka "points taken off") happens when:

1. You don't put your name on the assignment (5 points for an exam, 1 point for all other assignments).
2. You don't show work... ***Always show your work and provide evidence.***
3. You don't follow directions, or you don't answer the question.
4. You don't explain your answer: Whenever I say "list and explain/describe," an explanation or description is required in order to earn maximum credit.
5. You include irrelevant/incorrect information. There is such a thing as saying too much (I call this "throwing everything onto your paper and expecting credit for what sticks"). Remember that you are trying to show me what you understand.
6. Using an unverified or inappropriate source (i.e. Wikipedia, Quora, etc).
7. The work is copied from a source and not put in your own words. A quote or "blurb" is okay, but when the majority of your answer isn't actually your work, it's not fair to award you points for someone else's work. When the work is copied from another student or a source without proper credit given, this also becomes an academic dishonesty issue (see my policy on academic dishonesty).
8. The submitted work is poorly written or unclear. Always proofread your work!
9. The work is submitted late, or missed due to unexcused absences.

I will share any other details regarding a specific assignment prior to attempting/submitting that assignment. Please note that whenever I grade an assignment, I approach it from an "I know nothing" standpoint, meaning that your job on every assignment in this course is to teach me the material (you know 90% of what you can teach). A lower number of points are awarded when there are holes in your explanation, major details are left out, or the information is inaccurate.

Student Learning Outcome(s):

*Analyze and explain the objective techniques used by synoptic meteorologists and climatologists to forecast our planet's weather and to predict future changes in our planet's climate.

*Assess and critique the impact of meteorology and climatology as sciences on local, national and international economic, environmental, ethical and political issues including climate change.