

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

<b>Section(s):</b>	24286 Spring 2018
<b>Instructor:</b>	Terrence J. Mullens (Preferred Pronouns: He/Him/His)
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<b>Office Location</b>	S48A
<b>Office Hours (in S48A):</b>	M-Th: 9:30-10:20am
<b>Class Days/Time:</b>	M-F 10:30-11:20am
<b>Classroom:</b>	MLC 270
<b>Prerequisites:</b>	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, 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 7<sup>th</sup> edition

**Required Materials:** Composition Notebook

## Contacting Me:

If you need to get a hold of me for any reason, please email me directly at [mullensterrence@fhda.edu](mailto:mullensterrence@fhda.edu). 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, please re-send your email.

## 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 ask you to leave for the day, and you will forfeit any in-class assignment 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. 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 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.

## Assignments and Grading

Participation Questions...	approx. 100 pts
In-Class Activities	approx. 100 pts
Homework Assignments...	100 pts
Class Project...	100 pts
Midterm Exams (2 @ 100 points each)...	200 pts
Final Exam...	100 pts
<b>Total...</b>	<b>approx. 700 pts</b>

### 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:** 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.

**Homework Quizzes:** **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.

**Exams:** There will be two midterm exams on the last day of weeks 4 and 8, and one comprehensive final exam (which will consist of a third midterm and a comprehensive final). The exams will consist of multiple choice/true-false questions, fill in the blank questions, and several short answer questions. I will drop your lowest midterm exam, but will not drop the final! You'll need 4 scantron 1712-PAR Sheets.

**Class Project:** An individual project will be assigned where you will track your energy use and make a plan to reduce your carbon footprint. Details on the project will be given during Week 6. However, between now and then, I recommend checking out "The Green Ninja" on YouTube at <https://www.youtube.com/user/GreenNinjaTV> to think of ways to reduce your carbon footprint.

**Late Work/Makeup Policy:**

1. Exams: Any Exam Makeups need to be arranged with me in advance, and will result in a 20% deduction (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: 10/6*

*Deadline to Drop with Refund: 10/7*

*Pass/No Pass Deadline: 10/19*

*Deadline to Drop with a W, 11/16*

*Midterm Exams: 10/20, 11/17*

*Final Exam: 12/13 at 9:15am in S42*

*Holidays: 11/12 (Veterans Day), 11/22 and 11/23 (Thanksgiving)*

## **Dropping**

I will drop you if:

- You miss more than 5 class sessions\* (2 late arrivals counts as a missed class)  
-or-
- You miss more than one midterm exam

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

## **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/dspss/>.

**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/>.

## Course Schedule

<b>Week</b>	<b>Dates</b>	<b>Topics, Readings, Assignments, Deadlines</b>
1	9/24-9/28	Chapter 1: Introduction to the Course, Weather vs. Climate, The Atmosphere
2	10/1-10/5	Chapter 2: Temperature and Heat, Radiation Laws, Seasons
3	10/8-10/12	Chapter 15: Atmospheric Optics Chapter 3: Everything you need to know about Air Temperature
4	10/15-10/19	Chapter 4: Water Cycle, Humidity, and Clouds, <b><i>Exam #1</i></b>
5	10/22-10/26	Chapter 5: Stability, Cloud Formation and Precipitation
6	10/29-11/2	Chapter 6: Air Pressure, Why the Wind Blows, <b><i>Course Project Assigned</i></b>
7	11/5-11/9	Chapter 7: Global Circulation, El Nino/La Nina, CA Drought Chapter 8: Air Masses, Fronts and the Norwegian Cycle,
8	11/12-11/16	<b><i>No Class 11/12. Veterans Day</i></b> Chapter 9: How can we forecast Weather? <b><i>Exam #2</i></b>
9	11/19-11/23	Chapter 10: Thunderstorms and Tornadoes, <b><i>No Class 11/22-11/23. Thanksgiving Break</i></b>
10	11/26-11/30	Chapter 11: Hurricanes and other Extreme Weather Chapter 14: Air Pollution Chapters 12 and 13: Global Climate Change
11	12/3-12/7	Chapters 12 and 13: Global Climate Change and Review for Final <b><i>Course Project Due 12/7</i></b>
12	12/13	<b><i>Final Exam in same room as our class: 12/13 at 9:15am</i></b>

**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 as 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.