

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

Section(s):	32686, Winter 2020
Instructor:	Terrence J. Mullens (Preferred Pronouns: He/Him/His)
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Office Hours (in S48A):	M/W 11:30-12:20pm, T/Th 11-11:50am, and by Appointment
Classroom:	Online
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, and potentially any major weather events that occur during the quarter.

Course Website

Everything you will do on this class will be posted/submitted on the course's Canvas webpage. You are expected to log on to the course webpage at least two times a week.

Textbook and Course Materials:

1. **Recommended:** “Essentials of Meteorology” by C. Donald Ahrens 7th edition (older editions are fine!). I also have copies on reserve in the school library.
2. Computer with reliable internet connection and browser that meets Canvas' minimum requirements (Info: <http://www.deanza.edu/online-ed/students/>)

Contacting Me

If you need to get a hold of me for any reason, please email me at mullensterrence@fhda.edu. For a quicker response, please do NOT email me using the Canvas messenger; I check my email much more often! I check my email continuously during the office hours scheduled above, often during business hours, and less often at nights/weekends. **If, you do not hear from me within 24 hours (48 hours over the**

weekend), please re-send your email. I can't stress this enough... I always try to respond to an email, but depending on when I get it, it might slip through a crack, so please re-send if you don't receive a response within 48 hours.

Online Class: What's the Difference?

Because this is an online class, you are allowed to study/watch lectures/attempt assignments at your own leisure. However, online classes can be difficult, simply because they require more discipline than a traditional lecture. There are no meetings that you have to be present at... but you still need to be regularly involved in the class to succeed.

Assignments: This class will consist of a **10 modules**, and **three exams** (two midterms and the final, I drop your lowest midterm). Each module will consist of a discussion forum, a series of video lectures, reading assignments, an activity, and a quiz. Expect each module to take approximately 5 hours, not including time spent studying/preparing for the class. We will do one module each week. The module for each week will be posted no later than **12am the Saturday** of the week and due by **11:59pm the following Friday**. In order to be prepared for the module quiz, I strongly recommend that you complete the module discussion and activity PRIOR to attempting the module quiz.

In addition to Module Activities, Module Quizzes and Exams, 100 points of your grade are determined by weekly participation in that's week's Module Discussion forum. In order to get full credit for participation, you must make two posts a week (one by Wednesday and one by Friday) of the following:

1. **Ask a content-related question onto the discussion board**
2. **Answer someone else's question on the discussion board**
3. **Post something course related that you just came across (an article, story, or weather event that you just experience), with an explanation.**
4. **Any of the 3 items above must be at least 50 words in length and have substance to them (I won't count posts such as "cool story!" or "that's awesome!" towards your participation requirement).**

A rubric for Module Discussion Posts is available in Appendix B of this Syllabus.

A Word of Warning: While you are free to work on the modules at your leisure, I **strongly** urge you to **not wait until the last minute to submit a module activity**. If anything causes you to submit any module activity after the 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. **PLEASE READ: It is assumed that you are completing your course work at home, in the United States, with a high speed internet connection and access to the Canvas page. If you choose to, or need to travel abroad during the course, you are still responsible for making sure that you are able to access and submit all course materials in a timely manner. I will not give extensions nor make exceptions to the deadlines and policies in this class for those who travel abroad.**

Getting off to a good start: Because it often takes a little time to get accustomed to online classes, nothing is due until the conclusion of the 2nd week of class (Friday, January 17th, 2020). However, I still expect you to begin working on class material as

soon as the quarter begins. For census purposes, I must drop anyone who hasn't logged on or completed any work by 11:59pm on Sunday, January 19th. I will not make exceptions to this policy!

Attendance/Punctuality: You are expected to log in to the course website **at least twice per week**, and that is the bare minimum. You will be dropped from the course if you fail to log on for the first time by Sunday, January 19th, you fail to log on at least once each week, or if you fail to turn in at least one module activity in a two-week period. Regardless, if you choose drop the course, it is your responsibility to do so. If you fail to drop before the deadline, I will have to award you a grade, most likely an FW.

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 brought to me both in private and respectfully (while I'm happy to discuss any complaints or grievances, I refuse to be addressed in a disrespectful and unprofessional manner). I've found that 99.9% of any issues that arise are easily settled (and to everyone's satisfaction) by a brief (and respectful) conversation.

Important Dates:

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 Exams (open-close): 1/29-31, 2/26-28 *Final Exam: 3/25-3/27*
Holidays: 1/20 (Martin Luther King Day), 2/14-2/17 (Presidents Day)

Assignments and Grading

Module Discussion (10 @ 10 points each)...	100 pts
Module Activities (10 @ 20 points each)...	200 pts
Module Quizzes (10 @ 20 points each)...	200 pts
Midterm Exams (2 @ 100 points each, lowest dropped)...	100 pts
Final Exam (2 Parts... Part 1 counts as a third midterm)...	200 pts
Total...	800 pts

Grading Scale:

>720 = A, 640-719 = B, 520-639 = C, 440-519 = D, < 440 = F

+/- grades will be assigned when a grade is within 16 points (2%) of the next grade level

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

Grading Criteria and Discussion Forum Policies: A general criteria for how I will grade your work and the policies for the discussion forums are available as Appendix A and Appendix B of this syllabus.

Late/Makeup Policy: You are allowed to submit modules up to 48 hours late, but you will be penalized by **10% for each day late**. I will not make any exceptions to this policy, regardless of any reason. I will drop your lowest module. **I will not schedule makeups/accept late exams for any reason!**

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, or submitting work under a phony name to get “answers” prior to making an actual submission!** While you're allowed (actually, encouraged) to work together) on assignments, you must turn in your own work, 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

Week	Date	Topics, Readings, Assignments, Deadlines
1	1/6-1/10	Module 1: Introduction to the Atmosphere, Due 1/17
2	1/11-1/17	Module 2: Temperature and Heat, Due 1/17
3	1/18-1/24	Module 3: Moisture and Clouds, Due 1/24
4	1/25-1/31	Module 4: Stability and Precipitation, Due 2/2, Exam 1: Due 1/31
5	2/1-2/7	Module 5: Wind and Atmospheric Circulations, Due 2/7
6	2/8-2/14	Module 6: Circulations, Monsoon, El Nino, Due 2/14
7	2/15-2/21	Module 7: Fronts and Mid-Latitude Cyclones, Due 2/21
8	2/22-28	Module 8: Thunderstorms and Tornadoes, Due 3/1, Exam 2: Due 2/28
9	2/29-3/6	Module 9: Hurricanes and Superstorms, Due 3/6
10	3/7-3/13	Module 10: Global Climate Change, Due 3/13
11	3/14-3/20	Module 11: Weather Forecasting, Due 3/20
12	Finals Week	Final Exam: (Part 1 Opens at 12am 3/23, Part 2 Opens at 12am on 3/25... Both Close at 11:59pm 3/27).

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

Appendix A

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 your 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").
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.

Appendix B: Discussion Forum Guidelines

Module Forums: Each module will include a discussion forum. Here, you can post questions that you have about course material, answer other student's questions, post anything interesting (weather related) that you come across, or just engage in general discussion about the course. You are expected to participate in this forum by making 11 posts throughout the quarter (One for each module, worth 5 points each) and 11 responses throughout the quarter (One for each module, worth 5 points each). **Please note that you must make at least one post and one reply per module... You can't wait until the final module forum, make 22 posts and get full credit!** Your posts will be graded using the following rubric:

Grading Rubric:

- 5pts: Post was made by 11:59pm Wednesday of the week the module is due, and is at least 50 words in length. Post either asks a question related to the corresponding module or shares/describes something interesting (any sources are cited) and weather related. The post is thoughtful, well written, and is of substantial meaning to the discussion as a whole. The post doesn't just regurgitate course material, but expresses your understanding and reflection of the material.
- 3pts: Post was made after Wednesday, post was made on the last day the forum was open, or post was less than 50 words in length. Post neither asks a content/course related question, nor describes any links/content shared (author just posts a link with no description or explanation). The post is overly short (just a few words) or full of "fluff" with little, if any substance. The post may just regurgitate course material without adding any reflection or understanding to the forum.
- 0pts: Post is either plagiarized, not related to weather/climate in any way, or is non-existent.

Reply/Comment Rubric:

- 5pts: Reply/Comment was made by 11:59pm Friday night of the week the module is due. Comment is based primarily on course material and facts or personal experience rather than opinion, and any criticism of the response of the original author is constructive and helpful.
- 3pt: Comment is largely opinion based and draws from little, if any, course material or personal experience –or- comment is overly critical of original author.
- 0pts: Comment either attacks original author, provides no meaningful response (like, "cool, man"), is plagiarized, or non-existent.

Note: While opinions or personal experience are welcome (and encouraged) in the forum, I will not tolerate disrespect, foul language, or personal attacks (geared towards myself or other students) of any kind. Any student who trolls, insults, publicly airs grievances (forums are not the place to complain about losing a point on an assignment), or uses the forums in an inappropriate manner will be subject to disciplinary action (either a reduction in grade, banning from the forums altogether, dropped from the class). Keep all posts tactful and related to the course.

TL;DR: Your first post is due by 11:59pm the Wednesday the module is due, and your reply to another post is due by 11:59pm that Friday. Each post must be at least 50 words long and contributes to the overall discussion. Failure to follow these guidelines will result in a reduction of points awarded.

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.