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

**Section(s):** 10956 (61Z), Summer 2023

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Office Location Online (I'll be away from the office this summer)
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 (but not required): "Essentials of Meteorology" by C. Donald Ahrens 7<sup>th</sup> edition (older editions are fine!). I also have several copies of recent (5<sup>th</sup> 6<sup>th</sup> and 7<sup>th</sup> editions) on reserve in the library.
- **2.** Computer with access to the internet and browser that meets Canvas' system requirements (Info: <a href="http://www.deanza.edu/online-ed/students/">http://www.deanza.edu/online-ed/students/</a>)
- **3.** Recommended: A webcam and access to a printer and scanner (you can get by without them, but they will make your life easier).

## **Contacting Me**

If you need to get a hold of me for any reason, please email me at mullensalicia@fhda.edu or through the Canvas Direct Messenger (I have no preference...

either one works). I check my email often during business hours, and less often at nights/weekends. If, you do not hear from me within 48 hours (Give me a little extra time during the weekend), please re-send your email (I cannot stress this enough!).

#### 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 10 modules, 6 weekly discussion forums, and the Final Exam. Each module will consist of a series of video lectures, an activity, a practice quiz and a quiz. Expect each module to take approximately 5 hours, not including time spent studying/preparing for the class. Because this is a summer class, we will do two modules each week (with the exception of Finals Week). The first module of each week will be posted no later than 12am the Monday of the week and due by 11:59pm that Thursday. For Module 1, the deadline is Sunday, July 3<sup>rd</sup>. The second module of the week will be posted no later than 12am the Thursday of the week and due no later than 11:59pm that Sunday. All module activities (except for the Final Exam) have an automatic (meaning you don't need to request it) 3-day extension available to them. However, please adhere to the posted due dates (while you won't receive any penalty, any assignments turned in under the extension will still be listed as "Late") and only use the extension in case of an emergency... if something happens, I will NOT grant any additional extension under ANY circumstances.

In addition to Module Activities, Module Quizzes and Exams, 50 points of your grade are determined by weekly participation in that's Week's Discussion forum. In order to get full credit for participation, you must make two posts a week (one by Thursday and one by Sunday) 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 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 assignment. If anything causes you to submit any module assignment after the deadline, regardless of reason, it will still be considered late. The same goes for the automatic extension; if you are unable to submit your module activities within 3 days of the original deadline, it will not be accepted, regardless of reason, and you will be directed to submit the makeup module. Also, you are completely responsible for making sure that your work is submitted properly and has everything requested in it... If something is missing, I MAY point it out and ask you to send it to me, but don't bank on that. Check, double-check, and triple-check!

**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 1<sup>st</sup> week of class (Sunday, July 9<sup>th</sup>, 2023). 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, July 9<sup>th</sup>. 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, July 3<sup>rd</sup>, you fail to log on at least once each week, or if you fail to turn in at least one module activity in a given week. Regardless, if you choose drop the course, it is your responsibility to do so. If you fail to drop before the deadline, I have to award you a grade, most likely an F.

**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.

## **Important Dates:**

Holiday (Campus Closed): **July 4<sup>th</sup>** Last Day to Drop (and get a refund): **July 6<sup>th</sup>** Last Day to Add: **July 10<sup>th</sup>** Last Day to Drop (With a "W"): **August 2<sup>nd</sup>** 

# **Assignments and Grading**

Weekly Discussion (6 @ 10 points each, lowest dropped)	50 pts
Module Activities (11 @ 20 points each, lowest dropped)	200 pts
Module Quizzes (11 @ 20 points each, lowest dropped)	200 pts
Final Exam	150 pts
Total	600 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.

**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:** All module activities (except for the Final Exam) have an automatic (meaning you don't need to request it) 3-day extension available to them. However, please adhere to the posted due dates (while you won't receive any penalty, any assignments turned in under the extension will still be listed as "Late") and only use the extension in case of an emergency... if something happens, I will NOT grant any

additional extension under ANY circumstances. <u>Please note, because the Final Exam is</u> due on the very last day of the course, I cannot grant any extension to it!

#### 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 <a href="https://www.deanza.edu/dsps/">https://www.deanza.edu/dsps/</a>.

Academic Integrity: I will NOT tolerate cheating or plagiarism of any kind! This includes copying stuff off the internet, getting answers from sites like Chegg, sharing answers on a Discord server, submitting a paper that is identical to a classmates, or any of the nasty stuff that has become oh-so-common during the COVID Pandemic. While you're allowed (actually, encouraged) to work together) on assignments, <u>you must turn in your own work, and in your own words!</u> Just last quarter, I had a healthy number of students turning in identical work... I gave them all "zeros" and asked them to turn in their own work before I could give them credit. It's not to be mean, I promise... But if I don't know who solved what problem, wrote what answer, or plotted what graph, I can't fairly give anyone credit because I don't know who did what.

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 student affairs. I will enforce this! You do have a right to contest my decision to me (don't just say "that's not fair!" I'm telling you right now what my policy is, so you've been warned) or the school... however, please note that I only go after blatant cases of academic dishonesty (identical papers, including formatting, errors, and even handwriting, answers taken almost word-for-word from a website, an answer key posted, illegally should I say to sites like Chegg, CourseHero and Discord, etc), and only penalize instances where I have substantial evidence of wrongdoing. Also, I reserve copyrights on all of my materials, and while I don't mind if you're sharing my lectures, review sheets, etc, I do reserve the right to pursue charges of Copyright Infringement for any material (answer keys, quiz questions, etc) that is being shared with the goal of "cheating" in the class.

In all Seriousness, PLEASE don't do it! I get it... you want to get an A as painlessly as possible... I will do everything I can to help you get there, and, with few exceptions, this material and assignments are not very difficult... and the most difficult material can easily be navigated by just reaching out for help... I AM HERE FOR YOU, so please take advantage of that. There is NOTHING you will see in this class that is worth committing academic dishonesty over.

A word about final grades: Almost every quarter, without fail, I get at least a few requests to raise someone's grade or to provide extra work to bring their grade up... Unfortunately, I can't honor those requests... Once the quarter has ended and grades have been submitted, I am only allowed to make changes in the event that a mistake was made in calculating your grade. In order to be fair to the entire class, while I'm happy to fix any mistakes, I am unable to make special considerations from someone for a higher grade. I know it sucks, but I can't give one person special consideration if I don't give it to

others... as many love to say (but I hate to hear): "That's Not Fair!" But in this case, it really isn't!

One final word of warning... oftentimes, I'll hear nothing from a student all term, only to be flooded with emails from them the last week asking me to open this and that because "my grade is very important to me..." While I appreciate the impact of grades, you can demonstrate to me how important your grade is to you by regularly submitting work on time, reaching out for help throughout the term, and for taking a genuine interest in the course material (and seriously, we're talking about some really cool stuff here!!!), rather than only reaching out to ask for extensions or if I received your work. Sending me a message in the last week expressing how important your grade is after a whole term of missed deadlines, no communication, and apathy is both disheartening and won't garner any sympathy from me.

#### **Course Schedule**

Week	Date	Topics, Readings, Assignments, Deadlines
1	7/3-7/9	Module 1: Introduction to the Atmosphere, <b>Due 7/9</b>
		Module 2: Temperature and Heat, <b>Due 7/9</b>
2	7/10-7/16	Module 3: Moisture and Clouds, <b>Due 7/13</b>
		Module 4: Stability and Precipitation, <b>Due 7/16</b>
3	7/17-7/23	Module 5: Wind and Atmospheric Circulations, <b>Due 7/20</b>
		Module 6: Circulations, Monsoons, El Nino, <b>Due 7/23</b>
4	7/24-7/30	Module 7: Fronts and Mid-Latitude Cyclones, <b>Due 7/27</b>
		Module 8: Thunderstorms and Tornadoes, <b>Due</b> , <b>7/30</b>
5	7/31-8/6	Deadline to Drop with a W: 8/2
		Module 9: Hurricanes and Superstorms, <b>Due 8/3</b>
		Module 10: Global Climate Change, <b>Due 8/6</b>
6	8/7-8/11	Makeup Module: Optics and Weather Forecasting, <b>Due 8/11</b>
		Final Exam Due 8/11 (Open at 12am on Wednesday, 8/9, Closes*
		at 11:59pm 8/5).

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

\*Also, I receive at least a handful of people who request me to "re-open" the exams after the posted deadlines each quarter. Unless there is a life-or-death and verifiable emergency, I'm unable to do so, because that would be unfair to the rest of the class (and could actually get me in a lot of trouble).

#### **Discussion Forum Guidelines**

Weekly Forums: Each week 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 6 posts throughout the quarter (One for each module, worth 5 points each) and 6 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 12 posts and get full credit! Your posts will be graded using the following rubric:

## **Grading Rubric:**

- 5pts: Post was made by 11:59pm Thursday 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 Thursday, 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.
- Opts: 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 Sunday 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.
- Opts: 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 Thursday the module is due, and your reply to another post is due by 11:59pm that Sunday. 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 (or as student love to call it "Points Taken Off").

# **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.

# **Office Hours:**