

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

Section(s):	24286 Fall 2025
Instructor:	Neel Desai
Email:	desaineel@fhda.edu
Office Hours:	Mon 1 - 2 pm on Zoom https://fhda-edu.zoom.us/j/2921026568
Class Days/Time:	Mon/Wed 11:30-12:20 am AND 3 hours online (independent)
Classroom:	E32 (Yes, on campus!)
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 shorter (and with less legal jargon), and you are required to read it. Your continued enrollment is your agreement to abide by the syllabus and regularly submit your assignments.

Course Description

Welcome to the wonderful world of Weather! Regardless of whether a friend/counselor recommended this class to you, I’m glad you’re here! This course will cover all 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 droughts in California, El Niño/La Niña, Fire Weather, and potentially any major weather events that occur during the quarter.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

1. 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.
2. 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

I will be present on Zoom at the times mentioned above. If those times don’t work for you, please message me on Canvas or email me, and we can arrange a Zoom call at a more convenient time. If you would like to meet me in person, I’ll be on the De Anza campus on Mondays and Wednesdays.

Contacting Me

If you need to get in touch with me for any reason, please email me at desaineel@fhda.edu or use Canvas Messenger. I check my email continuously during the office hours scheduled above, often during business hours, and less often at night/weekends.

Response Times

I will do my best to respond to Canvas messages, discussion questions, and emails within 24 hours. But sometimes (like on weekends) it might be around 48 hours.

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 notifications when an announcement is posted.

Textbook and Course Materials

- 1. Recommended Textbook:** “Essentials of Meteorology” by C. Donald Ahrens 8th edition (older editions are fine too!). PDF is provided in Module 0 on Canvas.
- 2.** Computer with access to the internet and a browser that meets Canvas’ system requirements (Info: <http://www.deanza.edu/online-ed/students/>)
- 3.** A webcam and access to a printer and scanner (you can get by without them, but they will make your life easier).

Instructional Methodology/Modality: How this class is going to work:

This is a hybrid class, meaning that part of the class takes place in a traditional face-to-face setting, while the other part takes place online. PLEASE NOTE: this is NOT just a two-hour-a-week class. If you think that and act accordingly, you will not succeed! This is also not just an online class, either. You are REQUIRED to attend on-campus sessions.

Here’s the breakdown:

- Face-to-face sessions (11:30-12:20 pm, Monday and Wednesday) will be devoted entirely to lectures in class covering course content. Please, use the lectures to interact with me, ask questions, and clarify doubts.
- Online sessions (3 hours a week), you should watch lecture videos, complete Canvas activities, quizzes, and reading material for the next class! Almost every week, you will have an assignment that is due by Friday night.
- Each week will include a quiz that covers the lectures and review sheets. These quizzes are required and will make up 100 points of your course grade. However, you will be allowed to make two attempts on each quiz.
- We will also have a midterm in Week 6, covering the course material from the previous several weeks. This midterm will happen on campus and be closed-book and technology-free. It will be worth 50 points.

Course Requirements and Assignments

Lecture Notes

PowerPoint slides of topics covered in class will be provided and uploaded to Canvas. I encourage you to pay attention in class and take notes. However, just class notes and discussions will not be enough to do well in the class. Reading the book is essential and highly encouraged. You are responsible for regularly checking with the messaging system through Canvas to learn of any updates.

Quizzes

There will be Canvas quizzes, which will serve as your weekly homework. They will consist of approximately 10 questions from the previous lecture notes and selected readings from each Chapter. You will have two attempts, and the highest score will be recorded. Your lowest grade will be dropped. Late submissions will only be accepted with prior approval.

Discussions

It is essential to not only listen to the class presentation but also actively participate to get the most out of the course. This class is meant to be interactive, and some in your class may have the same questions, while others may already know the answer. Attempting to answer other students' questions is highly encouraged and will be included as class participation grades. I will give extra points when I notice students going above and beyond who are engaged, asking questions, and offering answers.

Homework

There will be four homework assignments throughout the semester. You are encouraged to review the relevant textbook chapters and class notes to answer the homework questions.

Activities

There will be five in-class Activities throughout the semester, which will act as your "attendance". You are encouraged to collaborate with your classmates to discuss/collaborate on these activities.

Midterm

There will be one midterm given on campus, covering material from the lecture videos/review sheets. These will consist of some multiple-choice questions, some longer answers taken from the quizzes, and others taken from the class content. You will be allowed to bring your review sheets/notes (2x2-inch sheets) with you.

Final Exam

The Final Exam will be on campus. It will be closed notes/technology, and on paper. I'll provide two weeks before the date of the final. It will consist of some multiple-choice questions, some longer answers taken from the quizzes, and others taken from the class content. You will be allowed to bring your review sheets/notes (2x2-inch sheets) with you.

Make-up/Late submission policy

Stuff happens, people get sick, accidents happen, and natural disasters can strike. If any of this causes you to miss an assignment/quiz/midterm/final, let me know as soon as possible, and I'll work with you to obtain a reasonable extension/rescheduling. If you do not contact me before the deadline, you can still submit the assignment, but Canvas will deduct 10% points/day.

Extra Credit

If you engage during the class or attend office hours to ask questions or seek clarifications, you will receive extra points, up to 10% of your final grade as a grade bump.

Class Drop Policy

IT IS IMPORTANT TO SUBMIT ASSIGNMENTS ON TIME REGULARLY. Suppose a student doesn't submit at least two assignments by the end of the 2nd week of classes. In that case, the student may be dropped from the class by the instructor to make room for wait-listed students who are regularly attending classes and submitting assignments. I am also required to drop you if:

- You miss more than 2 weeks of class, OR
- You fail to submit more than 2 Assignments.

The student code of conduct

We are all adults (those taking this class through middle college or any high school partnership program, I still see you as an adult), so I will treat you as adults, and I expect you to do the same. This means being respectful to one another and to myself. If I find you acting disrespectfully towards anyone or me, I will ask you to leave. Also note that racism, sexism, homophobia, transphobia, classism, and intolerance of others' socioeconomic, religious, political, or philosophical status won't be tolerated.

Cell phones

I get it. We're all addicted to our cell phones, myself included. Please be respectful towards me and your fellow students by putting away your phone and putting it on silent. If you do decide to be on your phone during class time, be forewarned that I reserve the right to call you out for doing so.

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 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 rudely and disrespectfully won't be considered and won't help your case.

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, please note that if you need to miss class, you are still responsible for any material you missed that day.**
2. Use the quizzes as an extra study tool for the midterms.
3. Reach out when you need help, or if 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, show up to office hours, almost always get A’s.
6. I get many emails from students near the end of the quarter saying things like “my grade is important to me,” but those same students never once reach out for actual help with understanding the course material. Please note that if your grade is important to you, I EXPECT YOU TO do your best by going over the class materials, engaging during the class, and showing up to office hours. I will keep that in mind when considering any requests for things like extensions/grade leniency. Students engaging in class discussions, asking questions, and showing up to office hours will get bonus points on the final grade.

Assignments and Grading

Breakdown:

Quizzes	20%
Homework	20%
Activities	20%
Midterm	20%
Final Exam	20%
Extra Credit	10%
TOTAL	100%

Grading Scale:

Letter Grade	Range
A	100% to 94%
A-	< 94% to 90%
B+	< 90% to 87%
B	< 87% to 84%
B-	< 84% to 80%
C+	< 80% to 75%
C	< 75% to 65%
D+	< 65% to 60%
D	< 60% to 55%
F	< 55% to 0%

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 Student Conduct.

Incomplete Contracts

Apart from very special circumstances (where what you missed is small and can easily be made up), I'm no longer honoring requests for incompletes. This is because students I have arranged incomplete contracts in the past have never been able to complete the missed work. If you are in a situation where something catastrophic happens in the last few weeks of the class, consider applying for an Excused Withdrawal (EW) grade. If the required work to complete the class is something small, such as making up the final exam (something that I can easily arrange), I can consider placing an incomplete.

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 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 throughout the course.

Summary

Engage in the class, try your best, turn in your work on time, don't cheat/copy from others/submit identical written work, and reach out whenever you need help.

Important dates/deadlines:

Classes begin 9/22

11/11 Veterans Day holiday – no classes; offices closed

11/28-12/1 Thanksgiving holiday – no classes; offices closed

Course Schedule

Week	Topics, Readings, Assignments, Deadlines
1	Introduction to the Course, Weather vs. Climate, The Atmosphere.
2	Temperature and Heat, Radiation Laws, Seasons
3	Air Temperature and Controls
4	Humidity and Condensation
5	Stability, Clouds and Precipitation
6	Midterm #1 (Covers material from Weeks 1-5)
7	Air Pressure, Why the Wind Blows
8	Global Circulations
9	Extreme Weather Part 1: Thunderstorms and Tornadoes
10	Extreme Weather Part 2: Hurricanes and Other Extreme Weather
11	Global Climate Change
12	<i>In-Class Final Exam on Dec 8th 11.30 -12.30 pm</i>

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

Appendix A: Grading Rubric

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 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 most 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.

Commonly Asked Question: "Do you grade on completion, or accuracy?" My Answer: It depends... but only on the type of assignment:

1. Activities, Homeworks: 50% on Completion, 50% on Accuracy
Quizzes, Midterms and Final Exam: 0% on Completion, 100% on Accuracy

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:

M	1:00 PM - 2:00 PM	PSME Village
T	1:00 PM - 2:30 PM	Zoom
T	1:00 PM - 2:30 PM	Zoom
W	1:00 PM - 2:00 PM	PSME Village