

**De Anza College**  
**Physical Science, Mathematics & Engineering Division**  
**Meteorology 12, Introduction to Climate Change**

<b>Section(s):</b>	47287, Spring 2021
<b>Instructor:</b>	Terrence J. Mullens (Preferred Pronouns: They/Them/Theirs)
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<b>Office Location</b>	Online (at <a href="https://cccconfer.zoom.us/j/6625783048">https://cccconfer.zoom.us/j/6625783048</a> )
<b>Office Hours (on Zoom):</b>	M/W 11:30-12:20pm T/Th 3:00-3:50pm, and by Appointment (i.e. let me know a time that works for you, and I'm happy to make it work!)*
<b>Classroom:</b>	Online (100% Asynchronous)
<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 Climate Change at De Anza! Regardless of if a friend/counselor recommended this class to you, or you signed up because of RateMyProfessors, I'm really glad you're here! This course will cover all of the fundamental concepts behind the topic of Climate Change. This includes Global Warming, The Greenhouse Effect, Natural and Human-Caused Climate Change, Paleoclimatology, Climate Modeling, and Mitigation Strategies. We'll also cover areas of interest such as how current events relate to Climate Change, and the local impacts Climate Change.

### **Course Website and Communication**

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. I will also make all communication (announcements/reminders/emails) through Canvas. Also note that it is your responsibility to stay on top of assignments and deadlines... 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.

**\*Office Hours:** Given the weird time we're in, office hours are quite a bit different... I am regularly and diligently checking my email during the scheduled times above, but may not be logged on to my zoom office at the moment you sign on (to save bandwidth in case I'm uploading other stuff)... if that is the case, wait a few moments... anytime

someone logs on, I get a notification, and will instantly jump on. Also, if you would like to request an appointment, you can do so at <https://terrence-mullens-meeting-appointments.appointlet.com>

### **Textbook and Course Materials:**

1. **Textbook:** “Climate Change: Causes, Consequences, and Solutions” by Arnold J. Bloom (2018). The textbook is a **free** online resource, which can be accessed at: <https://indd.adobe.com/view/8f2ed4a1-a1b0-4f12-b5bb-5009bbbada0f3>
2. **Computer with access to the internet and browser that meets Canvas’ system requirements** (Info: <http://www.deanza.edu/online-ed/students/>)
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 [mullensterrence@fhda.edu](mailto:mullensterrence@fhda.edu) or through the Canvas Messenger. 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 **the Final Exam**. 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: NORMALLY, it would be assumed that you are completing your course work at home, in the United States, with a high speed internet connection and access to Canvas and Zoom. HOWEVER, I know that the current circumstances surrounding COVID-19 have given each of you unique challenges, and I don't want anything to keep you from succeeding in this class... a list of resources available to you is given in Appendix C of this syllabus. I also encourage you to reach out to me specifically regarding any particular challenges you may have during this course. Because this was originally scheduled as an online class, I assume that you are prepared for online learning.**

**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 2<sup>nd</sup> week of class (Friday, April 16<sup>th</sup>, 2021). 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, April 18<sup>th</sup>. I cannot not make exceptions to this policy (I've had students do absolutely nothing in the first two weeks of the course, get dropped, and then come to me begging to be let back in... unfortunately I'm not allowed to do that, so please make sure you do something prior to April 18<sup>th</sup>)!

**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, April 18<sup>th</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 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. Pet Peeve: Saying something is "unfair" is not the way to solve your problem...

## Assignments and Grading

Module Discussion (10 @ 10 points each)...	100 pts
Module Activities (10 @ 20 points each)...	100 pts
Module Quizzes (10 @ 20 points each)...	100 pts
Lifestyle Project...	100 pts
Final Exam...	100 pts
<b>Total...</b>	<b>500 pts</b>

### Grading Scale:

>90%=A, 88-89.9%=A-, 80-87.9%=B, 78-79.9%=B-, 65-77.9%=C, 55-64.9%=D, < 55%=F

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. If you miss a module, you will have an opportunity to turn in a makeup module. **I will not schedule makeups/accept late exams for any reason!**

## Dropping

I will drop you if:

- You miss more than one complete module
- or-
- You fail to log on at least once a week for two consecutive weeks.

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

***The Deadline to Drop this class with a W is Friday, May 28<sup>th</sup>***

## 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 college.

**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.

**TL;DR:** Engage in the class, try your best, turn in your work on time, don't cheat/copy off of others/submit identical written work, and reach out whenever you need help and I promise you that I won't let you fail this class! Everything else is just details (still read them because I will adhere to them, but the gist is above)!

**Important dates/deadlines:**

*Deadline to Add: 4/17*

*Deadline to Drop with Refund: 4/17*

*Deadline to Drop with a W: 5/28*

*Holidays: 5/31 (Memorial Day)*

**Course Schedule**

Week	Date	Topics, Readings, Assignments, Deadlines
1	4/5-4/9	Module 1: Introduction and Context of Climate Change, <b>Due 4/16</b>
2	4/10-4/16	Module 2: History of Earth's Climate, <b>Due 4/16</b>
3	4/17-4/23	Module 3: Heat and Energy, <b>Due 4/23</b>
4	4/24-4/30	Module 4: The Greenhouse Effect and Seasons, <b>Due 4/30</b>
5	5/1-5/7	Module 5: The Carbon Cycle, and how We're Screwing it up, <b>Due 5/7</b>
6	5/8-5/14	Module 6: Natural Climate Changes, <b>Due 5/14</b>
7	5/15-5/21	Module 7: Climate Feedbacks, Consequences, and Future Predictions, <b>Due 5/21</b>
8	5/22-5/28	Module 8: Energy, and Carbon Footprint, <b>Due 5/28</b>
9	5/29-6/4	Module 9: Transportation Alternatives, <b>Due 6/4</b>
10	6/5-6/11	Module 10: Climate Perceptions and Policies, <b>Due 6/11</b>
11	6/12-6/18	Module 11: Climate Change in the Bay Area, <b>Due 6/18</b>
12	6/19-6/25	<b>Final Exam Opens on 6/21 and due 6/25</b>

**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.

## **Appendix C: Technology Resources**

**Comprehensive List of Resources:** <https://www.deanza.edu/online-ed/students/remoteteaching.html>

**Need a computer?:** Contact Lisa Mandy at Financial aid ([mandylisa@deanza.edu](mailto:mandylisa@deanza.edu)), and she will be able to provide information on a number of resources available to get a computer.

**Need internet?:** Several internet companies are offering free wifi hotspots/internet accounts for students during this crisis. They include:

- Comcast Xfinity WiFi: <http://wifi.xfinity.com/>
- Charter Spectrum: <https://corporate.charter.com/newsroom/charter-to-offer-free-access-to-spectrum-broadband-and-wifi-for-60-days-for-new-K12-and-college-student-households-and-more>

**Need to learn Zoom fast?:** <https://ccctechconnect.zendesk.com/hc/en-us/articles/360009517753-Overview-of-ConferZoom-in-Canvas>

**Need to learn Canvas?:** <https://deanza.instructure.com/courses/272>

**\*\*\*Please note: This is NOT an exhaustive list! If you find a resource that is valuable, let me know, and I'll add it to our course Canvas Page!\*\*\***

#### **Appendix D: Frequently Asked Questions (aka FAQ's):**

- 1. Is this class entirely online:** Yes! There will be no sessions held on campus at De Anza, nor any other physical location.



2. **Are there class meetings:** No! But I'm available if you need any help.
3. **Can I work with others:** Yes, **BUT...**
  - a. You must turn in your own work and any written/problem solving questions must be **YOUR OWN WORK**. I will not award any credit for identical submissions from two different students (meaning, **PUT ANY WRITTEN QUESTIONS IN YOUR OWN WORDS!!!**... I can't emphasize this enough... I even put it in **bold**, **ALL CAPS**, underlined and *italicized*, with three exclamation points... I don't know how to further emphasize it!).
  - b. You are not allowed to work together on quizzes... I need to know what **YOU** understand.
4. **Do you enforce your late policy and academic honesty policy:** Yes! It's not to be a jerk... it's just to be fair! It's not fair to other students if I accept late work for full credit, or allow students to turn in identical answers. Plus, when two (or more) students turn in the exact same answer, I don't know who did what, and so I can't fairly award credit.
5. **What do you "take points off" for?:** Points are mine to give, not yours for me to take away... every point is earned. However, a reduction in points is given for inaccurate answers, a lack of work shown (always show your work!), or academic dishonesty. Most questions are objective "right or wrong" questions, while others will have a set criteria provided in the feedback.
6. **What if campus re-opens during the quarter?:** I wouldn't count on it, however, if it is deemed safe for students to return to campus, I will begin to offer on-campus office hours/appointments. However, this class will be delivered entirely online, regardless of what happens. **But again, I don't see this happening!**
7. **What should I call you?:** Terrence is fine... So is Mr. Mullens... but don't call me "Dr." ... I don't have a PhD... nor do I want one!

**Are all of your syllabi this long?:** No! This one is longer because of all of the additional information related to COVID-19 and changes to course modality. I don't expect you to have this all memorized... but please keep it handy!

**Student Learning Outcome(s):**

\*Distinguish Science from Pseudoscience.

\*Assess the tools and procedures used by climate scientists to reconstruct earth's previous climate and to predict future climate shifts.

\*Explain the terms and concepts of climate science and use those terms and concepts to communicate local and global issues of climate concern