

**De Anza College**  
**Physical Science, Mathematics & Engineering Division**  
**Meteorology 10L, Meteorology Laboratory**

<b>Section(s):</b>	45779 and 46187, Spring, 2020
<b>Instructor:</b>	Terrence J. Mullens (Preferred Pronouns: He/Him/His)
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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 9-9:25am and 12-12:25pm, T/Th 12-12:50pm, and by Appointment (i.e. let me know a time that works for you, and I'm happy to make it work!)
<b>Class Days/Time:</b>	M/W 12:30-1:45pm (45779) and TBA (46187)
<b>Classroom:</b>	Online
<b>Prerequisites:</b>	Met 10 (Can be taken concurrently or you could have taken it years ago... I promise you won't be at a disadvantage)

## 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 I actually expect you to read it! Your continued enrollment is your agreement to abide by the syllabus, and you will be quizzed on it during our first quiz!

## Course Description

Welcome to the wonderful world of Weather! 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! In this class, you'll get to work with the many data products, graphics and instruments that real life meteorologists use to forecast and understand the weather. Laboratory assignments will use information gathered from various data sources and the free lab manual. It may take a week to get the hang of things, but the class quickly becomes very doable, and in fact most people enjoy it.

## 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 notification when an announcement is posted.

## Textbook and Course Materials:

1. *Investigations in Weather and Climate* by Terrence J. Mullens (Free Download – Each Chapter of the lab manual will be available on the corresponding activity's Canvas page).
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).**

## **In the Classroom/Class Rules**

### **How this class is going to work:**

Because of the crazy circumstances we find ourselves in right now, I understand that many of you are in a different situation than you were in when you originally signed up for this class (unemployed, different work hours, or even back in your home country). As such, because I originally offered two sections of the course (one a synchronous face-to-face course, and one online with coursework done at your own convenience), I'm going to make both modalities available to everyone, to allow you to take advantage of the benefits (and potentially reduce the drawbacks) of both.

1. Synchronous sessions: Many students still prefer a traditional face-to-face type of environment, with scheduled class sessions... I don't want to take those away from them, even in this time. Therefore, synchronous, face-to-face sessions will take place **every Monday/Wednesday at 12:30pm on Zoom**. Attendance at these sessions will count towards the "discussion forum" portion of your grade (meaning if you attend these, you don't have to do a discussion forum post). During these sessions, I will present and demonstrate the content from the day's scheduled lab (this will take 10-20 minutes, depending on the lab), and will then allow you to break up in groups to work on the lab investigation... I will continue to be available during the course's scheduled time (until 1:45pm). If you are unable to finish the investigation during the course time, or prefer to work on it at your own pace, that is completely fine... however, I **STRONGLY** recommend you save/write down any work before you sign off. I will also record the demonstration portion of the session and make it available on Zoom.
2. Asynchronous sessions: Other students prefer a more independent (a "regular" online) course where all work is done on their own time. If this is your preference, you are free to do so, regardless of the section you signed up for. However, if you choose this option, you must participate in the Module Discussion Forum that is open for that particular module. For the discussion forum, you must make two posts, one by Friday night of the first week, and one by Friday night of the second week.

**Regardless of the modality you choose, the course structure below will be identical.**

**Assignments:** This class will consist of **six modules, and three quizzes**. Each module will consist of a module discussion forum, and three or four laboratory exercises (each lab will have a video demonstration). Expect each module to take approximately 6 hours, not including time spent studying/preparing for the class (about 60-90 minutes per investigation). We will do one module every two weeks. The module will be posted no later than **12am the Saturday** of the first week and due by **11:59pm the Friday of the second week**. In order to be prepared for the module quiz, I strongly recommend that you complete the module discussion and laboratory exercises PRIOR to attempting the quizzes.

**Participation:** In addition to the Laboratory Activities and Module Quizzes, 50 points of your grade are determined by regular participation and engagement in the course. This is assessed by one of two ways: Either completion of participation questions in the synchronous sessions (M/W 12:30-1:45pm on Zoom) or participation in that module's Discussion Forum. You don't need to do both!

In order to get full credit for the discussion forum, you make two posts per module (One by Friday of week 1, and one by Friday of week 2) 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 long, and have substance to them (I won't count posts such as "cool story," "that's awesome," or a regurgitation of something mentioned in the class towards your participation requirement).**

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

**A Word of Warning:** While you are free to work on the investigations at your leisure, I strongly urge you to **not wait until the last minute to submit your work**. If anything causes you to submit any module activity after the deadline, regardless of reason, you will still be assessed a late penalty. **If you have any questions regarding an assignment/investigation/quiz, I STRONGLY recommend reaching out to me at least 24 hours prior to the deadline to ensure I have an opportunity to get back to you prior to the deadline...** in the past, I've had students panic email me a question 30 minutes before the deadline which I was unable to answer until the following day... in this situation, I still need to be fair to the entire class and enforce my deadlines and late penalties. 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 B of this syllabus. I also encourage you to reach out to me specifically regarding any particular challenges you may have during this course.**

**Taking the course internationally? No Problem! All synchronous sessions will be recorded and available shortly after each class session. Furthermore, class participation questions at the beginning of the class session will be available for 48 hours after the beginning of the class session (meaning, you'll have until 12:29 PDT two days later to submit them and still have them considered on-time).**

**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 24<sup>th</sup>, 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, April 26<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 26<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 26<sup>th</sup>, you fail to log on at least once each week, or if you fail to turn in at least one laboratory activity in a two-week period. Regardless, if you choose to 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 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. Pet Peeve: Saying something is "unfair" is not the way to solve your problem...

**Working together:** In this class, you have the choice of either working on lab assignments on your own, or in groups of 2 or 3. However, each person must submit their own lab assignments, and may not work together on quizzes. Furthermore, any written/problem solving/plotting work must be done in your own words... meaning three people can't turn in identical written answers... put it in your own words!

## Assignments and Grading

Laboratory Assignments (18 @ 25 points each, lowest 2 dropped)...	400 pts
Participation (6 @ 10 points each, lowest one dropped)...	50 pts
Quizzes (3 @ 50 points each, lowest dropped)...	100 pts
<b>Total...</b>	<b>650pts</b>

### Grading Scale:

>90% = A, 80-89% = B, 65-79% = C, 55-64% = D, < 55% = F  
+/- grades are assigned when a grade is within 2% of the next grade.  
Note: I reserve the right to adjust this scale, but only to benefit you.

**Laboratory Assignments:** Each module will consist of three or four laboratory investigations from the Lab Manual. The labs will be submitted using an online form linked on the assignment's Canvas page. Because each laboratory assignment has a different number of questions, I scale each assignment to a point total of 25 (so that one lab doesn't carry a larger or smaller weight than another). All laboratory assignments are due at the end of the respective module, unless I announce an alternative due date.

**Late Work/Makeup Policy:** You can submit work up to two days after the deadline, with a 10% per day late penalty. I will drop your two lowest labs, your lowest quiz, and your lowest discussion forum. Please note that this policy will be enforced in all circumstances, so I strongly recommend not waiting until the last minute to complete work.

**Returned Work:** It is your responsibility to hold on to any returned work until the conclusion of the quarter. In the event I made an error in your grade, you may need to present the assignment to me for verification.

## 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, June 5<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 submitting work under a fake name in order to get answers prior to submitting your work.** While you're allowed (actually, encouraged) to work together on labs, you must turn in your own answer sheet, **and in your own words! Multiple students submitting identical written answers is considered a violation of this policy!** 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.

**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: 4/25***

***Deadline to Drop with Refund: 4/26***

***Pass/No Pass Deadline: 5/8***

***Deadline to Drop with a W: 6/5***

***Quizzes: Weeks of 5/4, 6/1, and 6/22***

*Holidays: 5/25 (Memorial Day)*

## Course Schedule

<b>Date</b>	<b>Topics, Readings, Assignments, Deadlines</b> <b>Note: Synchronous session dates indicated with (date)</b>
Module 1 4/13-4/24	Introduction to Course (4/13) Lab 0: Orientation Lab (4/15) Lab 1: Surface and Upper-Air Weather (4/20 and 4/22) <b>Module 1 Labs and Participation due by 11:59pm on 4/24</b>
Module 2 4/25-5/8	Lab 2: Heat, Radiation (4/27), and Seasons (4/29) Lab 3: Air Temperature Applications (5/4) Quiz #1 (Opens on 5/2) <b>Module 2 Labs, Discussion, and Quiz 1 due by 11:59pm on 5/8</b>
Module 3 5/9-5/22	Lab 4: Clouds and Moisture (5/11) and Rising Air (5/13) Lab 5: Weather Data (5/18), Satellite, and Radar (5/20) <b>Module 3 Labs and Discussion Forum due by 11:59pm on 5/22</b>
Module 4 5/23-6/5	No Synchronous session on 5/25 (Memorial day... hopefully we're all allowed to go outside by then!☺) Lab 6: Air Pressure (5/27) Lab 7: Surface Winds (6/1) Quiz #2 (Opens on 5/30) <b>Module 4 Labs, Discussion, and Quiz 2 due by 11:59pm on 6/5</b>
Module 5 6/6-6/19	Lab 8: Upper Air Winds (6/8), El Nino and La Nina (6/10) Lab 9: Fronts (6/15), Lab 10: Thunderstorms and Tornadoes (6/17) <b>Module 5 Labs and Discussion Forum due by 11:59pm on 6/19</b>
Module 6 6/20-6/26	Extra Credit Labs and Option to turn in 2 missing labs. Quiz #3 (Opens on 6/20) <b>Week 6 Labs, Discussion, and Quiz 3 due by 11:59pm on 6/26</b>

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

### **Appendix A: Discussion Forum Guidelines (For Asynchronous Option)**

**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 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 Friday of the module's first week, 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 Friday of the first week, 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, entirely a quote (no original content from the author of the post), 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 (such as discussing question of an active quiz) 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 Friday of Week 1 of the module, and your reply to another post is due by 11:59pm the Friday of Week 2. 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 B: Technology Resources

**Comprehensive List of Resources:** <https://www.deanza.edu/online-ed/students/remoteflearning.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 C: 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:** Yes! Every Monday and Wednesday (except for Memorial Day), we'll have a class meeting at 12:30pm-1:45pm.
3. **Do I need to attend those class meetings:** No! However, you do need to be engaged in the class by doing one of two things:
  - a. Attending the class meetings, and completing the participation question. You can also view recordings of the class meetings and submit the participation question up to 24 hours... or,
  - b. Doing all work on your own time, but participate in the Module discussion forum by making at least one discussion post per week.

I **STRONGLY** recommend choosing one of the above two things, and sticking to it all quarter... but you can switch between the two if needed.
4. **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.
5. **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.
6. **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.
7. **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!**
8. **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):**

\*Assess and defend the analysis and decision-making skills employed by meteorologists to diagnose air patterns, understand air motions and predict future atmospheric conditions.