

*Physical Science, Math & Engineering Division  
Earth & Space Science Program – Dept. of Geology*

**Logistical Information:**

Course	GEOL 20.61Z (CRN 11744) – Weather & Climate Processes – Summer 2023
Instructor	Bridget James
Class Location	Canvas: <a href="https://deanza.instructure.com">https://deanza.instructure.com</a>
Office Hours	Wednesdays: 2 pm – 4 pm (instant email replies)
E-mail	jamesb@smccd.edu

**Course Description:**

An introduction to the physical environment of the ocean. Origin and evolution of ocean basins; sea-floor morphology; origin, distribution, historical record, and economic significance of marine sediments; ocean currents, climate and the ocean system, waves, tides, and changing sea level; beaches, shorelines, and coastal processes; marine resources, pollution, and human impacts on the oceans.

**Important Assignment Dates:**

WEEK	ASSIGNMENT	DATES
Week 1	First day of participation - Discussion 1 (100 pts)	Mon, July 3
	Module 1 Activity Due - Introduction to Oceanography (50 pts)	Mon, July 3
	Module 2 Activity Due - The Earth's Interior (50 pts)	Thurs, July 6
	Module 3 Activity Due - Plate Tectonics (50 pts)	Sat, July 8
	<b>Last day of participation for Discussion 1*</b> <b>The grace period ends for Module Activities 1 and 2</b>	<b>Sunday, July 9</b>
Week 2	First day of participation - Discussion 2 (100 pts)	Mon, July 10
	Module 4 Activity Due - Continental Margins and Ocean Basins (50 pts)	Tue, July 11
	Module 5 Activity Due - Ocean Sediments	Thurs, July 13
	Module 6 Activity Due - Properties of Water	Sat, July 15
	<b>Last day of participation for Discussion 2*</b> <b>The grace period ends for Module Activities 3, 4 and 5</b> <b>Midterm Project Due (100 points)</b>	<b>Sunday, July 16</b>
Week 3	First day of participation - Discussion 3 (100 pts)	Mon, July 17
	Module 7 Activity Due - Circulation of the Atmosphere	Wed, July 19
	Module 8 Activity Due - Circulation of the Ocean	Fri, July 21
	<b>Last day of participation for Discussion 3*</b> <b>The grace period ends for Module Activities 6 and 7</b> <b>Midterm Project Grace Period Ends</b>	<b>Sunday, July 23</b>
Week 4	First day of participation - Discussion 4 (100 pts)	Mon, July 24
	Module 9 Activity Due - Waves & Tides	Wed, July 26
	Module 10 Activity Due - Coastlines	Fri, July 28
	<b>Last day of participation for Discussion 4*</b> <b>The grace period ends for Module Activities 8 and 9</b>	<b>Sunday, July 30</b>
Week 5	Module 11 Activity Due - Climate Change	Wed, Aug 2
	Module 12 Activity Due - Life in the Ocean	Fri, Aug 4
	<b>The grace period ends for Module Activities 10, 11 and 12</b>	<b>Sunday, Aug 6</b>
<b>WEEK 6</b>		
<b>FINAL EXAM (100 POINTS) - MONDAY, AUGUST 7TH (Opens at 8 am)</b> <i>The grace period ends for the Final Exam on Thursday, August 10th at 5 pm</i>		

*\*WARNING - Participating in a weekly discussion solely on the last day that week's topics are open (Sundays) will give the potential for only partial credit. The potential for full credit requires participation earlier in the week. See discussion assignment instructions and rubric on Canvas for details.*

### **Textbook & Materials Needed:**

- Segar, Douglas A. 2018, Introduction to Ocean Sciences, Open-source textbook:  
<https://www.reefimages.com/oceans/SegarOcean4Book.pdf>
- Regular and reliable access to a computer with reliable high-speed Internet.

### **Grading:**

Best 3 out of 4 Discussions (100 pts each)	30% (300 points)
Best 10 out of 12 Activities (50 pts each)	50% (500 points)
Midterm Project (100 points)	10% (100 points)
Final Exam (100 points)	10% (100 points)
Total Points for course	1000 points

FINAL GRADES			
Grade	Points Needed	Grade	Points Needed
A	920-1000	C	720-779
A-	900-919	C-	700-719
B+	880-899	D+	680-699
B	820-879	D	620-679
B-	800-819	D-	600-619
C+	780-799	F	BELOW 600

### **About Online Courses:**

The content covered between an in-person and an online course is the same, but some benefits and challenges must be considered when taking an asynchronous online course such as this one. Asynchronous online courses offer much more flexibility in completing course material than other course modalities. However, you must have good self-discipline in promptly completing these tasks. Remember that the due date should never be the “do” date. Completing assignments well before the deadline will go a long way toward your success in this course. Use a calendar to set aside “class time” to satisfy course requirements. If your work schedule changes week-to-week, schedule your “class time” immediately after your work schedule is set.

### **About Online Office Hours:**

The time listed as "online office hours" is time dedicated to you. I will reply to your email within a few minutes during this time. We can discuss course assignments, topical interests, career choices focused on the planet we call home, or anything else to help you succeed in this course. Just send me an email to get the conversation started. Also, feel free to email me anytime outside of office hours. Outside of office hours, you will hear back from me within a few hours. Note that evening emails may not be responded to until the next day, and weekend emails may not be responded to until Monday afternoon due to other work or personal obligations.

### **Modules:**

A module is a specific and discrete learning segment that leads to understanding a given topic in preparation for the final exam in this course. Modules will be assigned by topic on Canvas, which include 1.) Lectures; 2.) Reading; 3.) Module Activities. In addition to Module tasks, there will be Discussion assignments and a Final Exam for this course. Please read the instructions below for the details of each of these tasks.

### **Lectures:**

Lectures will be presented online as PowerPoint presentations converted into a format that can be watched and listened to on YouTube ©. A link to each lecture will be provided. Like a traditional course, you will be expected to take notes while listening to the lecture. A benefit to a recorded lecture is that you can re-listen to any topic anytime. Any questions you may have during the lecture should also be written down immediately in your notebook. Sometimes, those questions answer themselves further in the lecture. What isn't answered should be e-mailed to me. Missing lectures can severely impact your ability to learn the course material, leading to a poor grade. Exam questions almost always come directly from lectures, so be sure to discipline yourself to listen and take notes. Then, study the concepts learned in the lecture for the upcoming exam. Notes do not need to be submitted. Please keep those for reviewing purposes.

### **Discussions (100 points each, 300 points total, 30% of your grade):**

There will be four discussion assignments this term. The lowest-scored discussion assignment will be dropped from your final grade in the course. Discussion assignments for this course may be different from other courses you have taken. For this course, you are being graded on how well you are engaging your peers on the topic of Earth Sciences, and there are parameters to that engagement you will need to be aware of:

- You are being graded on how you engage your peers on Earth Sciences. Sending a post to me directly does not engage your peers, so you cannot receive a grade that way.
- Whether you start a new topic or reply to one is irrelevant to your grade, as both actions equally satisfy the engagement requirement with your peers.
- Never start a new topic that another student has already begun. Instead, always reply to the student who created the topic instead. Not only does that indicate good engagement, but it is also respectful to the original author.
- This is a peer-led discussion. You need to know what you can reply to (hopefully everything!) and what you cannot (off-topic, duplicate topic, etc.). You will be graded on knowing the difference.
- Biology-focused (i.e., life on our planet) posts are considered off-topic in the discussion and won't count for credit.

- It is expected that you understand the fundamental difference between “Earth Sciences” and other topics like “Biological Sciences” when coming into this course. Your discussion grade will depend on your understanding of this.
- You are responsible for protecting your work by writing your post on a different document (Word, Google Docs, etc.) and then copying and pasting it into Canvas. Your work will then be safe if the internet or Canvas has issues posting.
- It is your responsibility to verify that your post was posted on the discussion board AND that it was posted in the correct place BEFORE leaving Canvas.

Please read the instructions for this assignment on Canvas for further details on what is expected.

**Module Activities (50 points each, 500 total points, 50% of your grade):**

There will be twelve module activities this semester. Module activities are assessments completed after reading the associated chapter within your textbook and listening to the lecture within the modules assigned that week. Module Activities are due on the date/time stated within the instructions of each assignment. These assignments are designed to help you understand important topics in the lecture. They can be both problem-solving and/or review questions based on the lecture and/or films watched. You will turn in these activities online on Canvas. Emailed assignments are not accepted for any reason. Each activity will have submission instructions.

If you have a situation where you cannot submit an activity by its due date, I will accept most activities late without penalty, but only for a specified period (see activity instructions for details). Once that period (the grace period) has passed, I will not accept the activity for any reason, including emergencies. However, the two lowest activity scores will be dropped from your final grade, making this entire assignment worth 500 points.

**Midterm Project - Decoding the Weather Machine (100 points and 10% of your grade)**

For this project, you will watch the first hour of the film “Decoding the Weather Machine” and answer the associated questions. This will give you a good overview of climate change and what meteorologists, geologists, and climate scientists are uncovering on this critical topic. Since this film is produced for the general public, no background in climate change is needed to complete this assignment. It will be due on **Sunday, July 16th, 2023, at 11:59 pm**, but you can complete the project at any time before its due date (recommended).

**Final Exam (100 points, 10% of your grade):**

There will be one online (timed) cumulative final exam that will have 50 multiple-choice questions worth 2 points each. **The final exam will be administered online on Monday, August 7th, 2023, starting at 8 am.** There will also be a grace period for this exam that will firmly end at 5 pm on Thursday, August 10th, 2023. You can take this 70-minute exam anytime on Monday, August 7th, after 8 am, but you may only take the exam one time. Be sure to take the exam as early as possible in the exam period so a last-minute emergency is not in the way of these valuable points. **Make-up exams are not offered for any reason, including emergencies.**

You may use notes while you take the exam, but because the exam is timed once you start it, you should master the subjects you are being tested on before attempting the exam so that you can finish in plenty of time. I highly recommend having only a small index card worth of notes nearby. Spending time going through the Internet, the textbook, or any other source for answers while taking the exam does not indicate comprehension of the subject, so this online exam must be timed to prevent heavy reliance on such sources. Much like a classroom exam, once you submit your answers, the answers will not be available immediately. Once the exam period ends, scores will be released within 48 hours unless otherwise noted.

**Important note on final grades and extra credit:**

- Grades are non-negotiable. No exceptions.
- Extra credit is never assigned in this course. No exceptions.
- Assignments will not be "re-opened" once a grace period has passed for any reason. No exceptions.
- Requests to raise a letter grade are never considered for any reason. No exceptions.

**Accessibility Accommodations:**

Students with disabilities who need reasonable accommodations are encouraged to contact the instructor and/or DSS. Disability Support Services (DSS) will facilitate the reasonable accommodations process. DSS is located in SCS 41 and can be reached by telephone (Voice 408-864-8753/TTY 408-864-8748).

**Policy on Academic Dishonesty:**

There is a presumption and expectation that all work submitted is above board and honest. If cheating or plagiarism is discovered on any assignment in this course, a student will receive a "zero" at minimum when grades are released or retroactively if discovered after grades are released. The college will also be notified for further action. For more information on academic dishonesty, please see the college catalog.

**Important note about travel:**

It is assumed that you are completing this course at home in the U.S. and have excellent Internet access for the entire semester. If you need to travel, whether inside or outside the U.S., it will be your responsibility to ensure you have access to

the course and all its assignments. All assignments, including exams, cannot be extended for you because you choose or need to travel for any extended period during the semester, even if that reason is out of your control. It's important to note that many countries outside of the U.S. block the use of YouTube and the ability to watch U.S. documentaries. If you plan on traveling to a country with these limitations, dropping this course and taking it during a term you will not be traveling is best. Also, please note that all dates and times given in this course are in Pacific Time unless otherwise noted.

**Important note on attendance:**

If you have yet to log into the course on Canvas within 48 hours of the start of instruction, I reserve the right to drop you from the course. I also reserve the right to drop any student who has yet to log into the course website and/or complete any assignments by the end of the first week. However, it is always the student's responsibility to drop a course they are no longer attending. **The drop deadline for Summer 2023 is Thursday, July 6th, 2023, and the last day to drop with a "W" on your record is Wednesday, August 2nd, 2023.**

**Statement on Sexual Violence**

De Anza College is committed to maintaining a safe and caring college environment. The college has established policies and procedures regarding sexual misconduct, harassment, and assault. A college website has also been developed which provides you with important information about sexual misconduct and sexual assault:

<https://www.deanza.edu/titleix/index.html>

**Student Learning Outcome(s):**

- Apply the principles of scientific methodology to test hypotheses as to how the Earth's oceans work as an integrated system.
- Use observations and data to characterize the dynamic Earth processes that act to shape the ocean floor and analyze the record of these processes within marine sediments and oceanic crust.
- Analyze the dynamic movement of the water column of the oceans, through an application of the physical principles of ocean currents, waves, and tides and their effect on coastal systems and processes.
- Apply scientific methodology and the principles of oceanography to analyze the impact of the ocean system on humanity, from specific natural hazards and the availability, use, and distribution of ocean resources.

**Office Hours:**