GEOS212: Introduction to Oceanography (Flex/In Person)

Section 001 & Section 002
On Zoom; Tues/Thurs 11-12:15pm
In-person (if & when possible) ENR2-N120; Tues and/or Thurs 11-12:15pm
Recorded Lectures on Panopto (through D2L): Available Tues/Thurs @ ~2pm

Notice: It is our intention to make this class as accessible as possible with the intent that the safety and health of the students and the teaching team is paramount. We are offering maximum flexibility, including, but not requiring, in-person participation. All students can participate live or remotely, synchronously or asynchronously, as needed. Please see the Pandemic Modality section below.

Description of Course
This course provides an introduction to our amazing Ocean: its shape and depth and how these evolve, the water and what is in it, how the water moves, how the oceans influence weather and the global climate, how ocean life has evolved, and some of the different marine communities that exist today.

Course Prerequisites
This is a Tier 2 NATS course, to be completed after a Tier 1 NATS course.

Instructor and Contact Information
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Office Hours: In-person & Online – see D2L

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MAIN CONTACT POINT – ua.oceanography@gmail.com
Class Website: http://d2l.arizona.edu (D2L)

Land Acknowledgement
The University of Arizona sits on the original homelands of Indigenous Peoples who have stewarded this Land since time immemorial. Aligning with the university’s core value of a diverse and inclusive community, it is an institutional responsibility to recognize and acknowledge the People, culture, and history that make up the Wildcat community. At the institutional level, it is important to be proactive in broadening awareness throughout campus to ensure our students feel represented and valued.
https://nasa.arizona.edu
Wearing Masks:
Students, employees and visitors are required to wear a face covering that covers the nose, mouth and chin in all indoor shared spaces on all UArizona campuses including formal learning spaces (e.g., classrooms, laboratories, studios, etc.), informal learning spaces (e.g., libraries, study rooms, etc.), offices (e.g., administrative offices, academic advisor offices, etc.), and in auxiliary facilities (e.g., Student Union, Bookstore, Campus Rec., Bursar's Office, Residence Halls, etc.). They are also required to wear a face covering while in all UArizona outdoor spaces where continuous physical distancing of at least six feet is difficult or impossible to maintain.

Pandemic Modality and Resources:
This class will be taught in both the FLEX/IN-PERSON modality and the LIVE ONLINE modality, with both synchronous and asynchronous options. The following are the guidelines for Flex/In Person

• **Meeting times for remote teaching:** All sections will be meeting remotely until the University notifies us that in-person meetings may commence. We will meet on Tuesday and Thursday from 11a-12:15p (Tucson time) by Zoom to deliver lecture material as we would in the classroom.

• **Lectures will be recorded and will be made available through D2L and Panopto for asynchronous viewing.**

• **Attendance** will be recorded by completing a short review quiz on D2L prior to the next lecture.

• **In-person teaching:** Students in Section 001 and Section 002 are NOT required to attend in-person activities. However, when the COVID-19 situation permits teaching on campus (after Labor Day at the earliest), we will allow students to self-enroll through D2L into two groups, a Tuesday group and a Thursday group so students can opt to come in person on their day and will receive the lecture materials through Zoom on the alternate day. Prior to the resumption of in-person teaching, we will let each student choose the group that best aligns with their schedule. In order to accommodate social distancing guidelines and to ensure the health and safety of all students and instructors, in person attendance will remain completely voluntary throughout the entire semester.

  o **Face coverings are required in the classroom:** Per UArizona’s Administrative Directive, face coverings that cover the nose, mouth, and chin are required to be worn in all learning spaces at the University of Arizona (e.g., in classrooms, laboratories and studios). University policy on face masks can be found at: [https://covid19.arizona.edu/face-coverings](https://covid19.arizona.edu/face-coverings)

  o Any student who violates this directive will be asked to immediately leave the learning space, and will be allowed to return only when they are wearing a face covering. Subsequent episodes of noncompliance will result in a Student Code of Conduct complaint being filed with the Dean of Students Office, which may result in sanctions being applied. The student will not be able to return to the learning space until the matter is resolved.

  o **Physical distancing is required in our classroom:** During our in-person class meetings, we will respect CDC guidelines, including restricted seating to increase physical distancing and appropriately-worn face coverings (see above).

  o The Disability Resource Center is available to explore face coverings and accessibility considerations if you believe that your disability or medical condition precludes you from utilizing any face covering or mask option. DRC will explore the range of potential options as well as remote course offerings. Should DRC determine an accommodation to this directive is reasonable, DRC will communicate this accommodation with your instructor.

  o **Classroom attendance is entirely optional:**
    - If you feel sick, or may have been in contact with someone who is infectious, stay home. Except for seeking medical care, avoid contact with others and do not travel.
    - Campus Health is testing for COVID-19. Please call (520) 621-9202 before you visit in person.
    - Visit the UArizona COVID-19 page for regular updates.
• **Staying current:** All students are expected to keep up with lectures, whether they are participating synchronously or asynchronously. **Credit for attendance must be completed on D2L by the end of the day following lecture** (see Lecture Assessments/Attendance below).

• **Academic advising:** If you have questions about your academic progress this semester, or your chosen degree program, please note that advisors at the Advising Resource Center can guide you toward university resources to help you succeed.

• **Life challenges:** If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office can be reached at 520-621-2057 or DOS-deanofstudents@email.arizona.edu.

• **Physical and mental-health challenges:** If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520-621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.

• **Remain flexible:** If pandemic conditions warrant, the University may require that we return to remote operations. If that is the case, we will notify you by D2L Announcement and email that we are moving back to remote operations.

• **Remote/online only after Thanksgiving:** After the Thanksgiving holiday, we are scheduled to move back to remote teaching. That means that we will meet by Zoom for the last lecture and the last Exam.

### Course Format and Teaching Methods

This course is taught both synchronously and asynchronously. Material is delivered primarily in lectures as powerpoint presentations, animations, video and movie segments, and class discussion. We also offer optional study groups and review sessions for homework and exam preparation.

#### LECTURE OUTLINES, SLIDES, PODCASTS

- A lecture outline that includes key slides from the lecture will be posted on the class web site (at D2L) by 5pm the afternoon prior to each lecture. We strongly encourage you to have a copy with you during lecture to take notes on.
- Lecture slides are posted to D2L after each lecture.
- A podcast of each lecture will be posted on D2L. The recording will include audio from the lecture as well as any material displayed through the computer (PPT, movies, Elmo, etc.) Zoom recordings include the instructor as well as the powerpoint and may include the chat transcript.
- All assignments, homework, quizzes and extra credit opportunities will be submitted through D2L.
- **Exams will be given through D2L with options of specific days & times for each exam** – make-up exams will only be offered in extreme circumstances.

#### It is the responsibility of all students:

1. Watch lectures live or on D2L. Recordings of the lectures will be posted every Tuesday and Thursday by 2pm in the content section of D2L.
2. Complete the assessments, homework and quizzes by their due dates posted in the schedule. **No late assignments or emailed assignments will be accepted for any reason!**
3. Bring your questions and concerns to our attention by contacting us through the Discussion Groups, by email at at ua.oceanography@gmail.com, or during office hours.
4. **DO YOUR OWN WORK** – avoid the appearance of cheating. We take this very seriously and will report any incidents.
5. **IMPORTANT NOTE:** Lecture recordings may only be used at the discretion of the instructor. Students must access content through D2L only. Students may not modify content or re-use content for any purpose other than personal educational reasons. All recordings are subject to government and university regulations. Therefore, students accessing unauthorized recordings or using them in a manner inconsistent with UArizona values and educational policies are subject to suspension or civil action.

### Technology Needs/Requirements

Please inform us of any technology issues that may impede your participation in the course as early in
the semester as possible. These could include slow internet speed (so as not to be able to access class material synchronously) and lack of computing equipment/accessories. See information at this link: https://student.it.arizona.edu/resources. See also University of Arizona Wifi description: https://it.arizona.edu/service/uawifi.

In addition, the OSCR lab provides equipment as needed (https://oscr.arizona.edu/content/covid19) or can point you to in-person computing resources. You will need to have an up-to-date browser, operating system and some additional software on your computer to take this class. Some material will be delivered as word documents, powerpoint files and/or PDF files: the appropriate software is freely available to all UA students at http://softwarelicense.arizona.edu/students.

Course Objectives and Expected Learning Outcomes
Our course objectives are to give you an understanding of the following principles:
• The ocean made the Earth habitable.
• The ocean is a major influence on weather and climate.
• The ocean supports a great diversity of life and ecosystems.
• The ocean and humans are inextricably interconnected.
• The ocean is largely unexplored.

These are the principles established by Ocean Literacy: ideas that everyone should understand about the ocean.

Upon successful completion of this course, you will be able to:
• Understand the water cycle and the sediment cycle
• Articulate the central role of the ocean in the climate of Earth
• Explain the forces that cause the water in the ocean to be in ceaseless motion
• Characterize common features and organizing principles of marine communities
• Discuss the impacts of human society on the ocean
• Gather and assess information from maps and other data visualization tools

Our main goals for this class are to:
• enhance your appreciation for the significance and beauty of the oceans
• inform you about how the ocean and the health of the ocean affects your daily life so that you become better informed citizens
• help you do well in this course
• facilitate your success as a student at the University of Arizona

Absence and Class Participation Policy
• To do well in this course, you should watch all of the lectures, participate and take careful notes! This will provide you with the information you need to do well on homework assignments and exams.
• All material presented in lecture or as part of a homework assignment is fair game for the exams.
• If you miss a lecture, you should watch the podcast (found under Content on D2L).
• Attendance will be established by completing the “lecture assessment” on D2L associated with each lecture (see the LECTURE ASSESSMENTS section below).
• The UA’s policy concerning Class Attendance, Participation, and Administrative Drops is available at: http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop
• The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, http://policy.arizona.edu/human-resources/religious-accommodation-policy.
• Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: https://deanofstudents.arizona.edu/absences

Makeup Policy for Students Who Register Late
We do not accept any late assignments and we offer extra credit to make up for missed assignments: we will not extend any deadlines for students who register late.
Course Communications
- The main contact point for all students should be: ua.oceanography@gmail.com.
- All information for this course is available on D2L. Most material will be posted on the “Course Home” and “Content” pages.
- We provide: lecture outlines, lecture slides, review sheets, sample exams, etc. -- there is no need for you to acquire additional study materials (e.g., Notehall, ShareNotes, etc.).

Required Text/Materials
- **World Map**: There is no textbook for this class, but you should purchase a copy of the National Geographic Physical Map of the World, which is available from the UA bookstore (for $16.99). Many of the homeworks rely on information presented on this particular map. We also have copies of this map in the Study Group room (GS-228A) although we do not plan on having in-person study group sessions this semester – see STUDY GROUPS below.
- **Clickers**: Due to the uncertainty with respect to in-person activities, a clicker is not required.

Study Groups
- **Study Group Sessions** will be provided “Live Online” in Zoom sessions to help you learn the material covered on homework assignments and exams, and provide opportunities to work with others and receive help from the TA’s and/or Preceptors who are running your session.
- Study groups are generally held Tuesdays after class (1pm to 6pm), on Wednesdays (9am to 5pm), and on Thursdays before class (8am to 11am). **Times are subject to revision depending on how many Honor’s Preceptors are taking the course.**
- Each session starts on the hour and lasts for about 50 minutes. The link to each session will be available through D2L.
- You can **sign up** for a Study Group Session at the start of the term if you plan on attending the same session regularly, but the Zoom sessions will accommodate as many as needed.
- Signups are available from the course web page at D2L under “Groups”.
- **Study Groups are entirely optional**, so you need not attend every week even if you have signed up. And you are also free to attend without signing up, so long as there is space in the classroom.
- **All study groups will be online this semester.** If you have trouble accessing a study group, please let us know at ua.oceanography@gmail.com.
- **NOTE: please make sure you do your own work on each homework assignment.** It is fine to work with others, but the information you write down must be in your own words and in your own format. **Identical papers (content & format) will receive zero credit.** Repeat offenders of this policy will be reported to the Dean (see CHEATING section below).

Scheduled Topics/Activities
See the Schedule on D2L under Content

Graded Work
- **All assignments will be turned in to the appropriate Dropbox on D2L**
- Grades will be available through D2L.
- All grades will be entered into D2L within one week of the due date – please do not ask about your grade before the week is up.
- Comments on graded material will be available through D2L.
- Please note the due date for each assignment: we encourage you to get your assignments in early as possible.

**NO LATE ASSIGNMENTS WILL BE ACCEPTED FOR ANY REASON.** You will have a week for each assignment, so there is no reason to miss one. Missed assignments can be made up with extra credit.

**EXAMS** (150 points, ~35% of your total grade)
- Three 50-point exams will be given during the semester, and there will **not** be a cumulative final exam during final exam week.
• **Exams will be given over D2L**, and there will be several opportunities to take each exam including evening opportunities and classtime opportunities.
• Each exam covers only material since the previous exam.
• Slides, diagrams, and videos shown in class commonly are used during exams! Format will consist of about 50% written answers or drawing diagrams, and about 50% multiple-choice questions that are keyed to diagrams or real-world pictures.
• To help you prepare, a brief study guide and an exam from a previous semester will be available on D2L. We will also have evening review sessions on Zoom (from 6:30-7:50pm) prior to each of the evening exam opportunities (Tuesday and Wednesday evenings). During these review sessions, we will go over the practice exam, review some of the main diagrams that you might be asked about, and answer any questions you may have.

• **EXAM #1 will be offered:** Tuesday, Sept. 22nd at 8pm; Wednesday, Sept. 23rd at 8pm; Thursday, Sept. 24th at 11:00am; or Friday, Sep. 25th at 12:30pm
• **EXAM #2 will be offered:** Tuesday, Oct. 27th at 8pm; Wednesday, Oct. 28th at 8pm; Thursday, Oct. 29th at 11:00am; or Friday, Oct. 30th at 12:30pm.
• **EXAM #3 will be offered:** Tuesday, Dec. 1st at 8pm; Wednesday, Dec. 2nd at 8pm; Thursday Dec. 3rd at 11:00am; or Friday, Dec. 4th at 12:30pm.

  o **MAKE-UP EXAM Policy: ****IMPORTANT**
    o If you determine that you cannot make any of the 4 options for an exam (see above) and let us know *ahead of time* (before the week of the exam), you make take the make-up exam at the time listed in the Schedule. **No other make-up exams are available.**
    o We encourage you to take the exam during one of the regular opportunities; although the make-up is no harder than the regular exam, average grades are always about 8-10 points lower for students who wait to take the make-up.

If you miss all 4 opportunities for an exam, and fail to contact us during the Exam Week, you will receive a zero on the Exam.

**HOMEWORK** (80 points, ~19% of your total grade)
• Eight homework assignments during the semester. We do not drop any homework assignments.
• Assignments emphasize material that will be covered on the exams.
• Each will be worth **10 points**.
• Most of the exercises are based on information gathered from lecture, your world maps and accompanying diagrams.
• You will have one week to complete each homework assignment.
• **All homework must be turned in by Friday at 12 noon.**

How to submit your homework assignments:
• Homework will be delivered as both .docx and .pdf files. You may annotate the electronic files with your answers and then upload to the appropriate Dropbox. Or the assignments may be printed out, completed, and then scanned or photographed (make sure that the scan/photo is legible and you include all of the pages) and then uploaded to the appropriate Dropbox.

**ONLINE LECTURE ASSESSMENTS (**ATTENDANCE**, 100 points, ~23% of your total grade):**
• There will be a **5-point lecture assessment after each lecture** that must be completed by 5pm on the day following the lecture. Think of it 5 points for attendance.
• These questions are designed to ensure understanding of the main concept(s) in each lecture, and are typical of questions that appear on exams and quizzes.
• You have until 5pm of the day following the lecture (Wed at 5pm or Fri at 5pm) to complete the lecture assessment.
• You will receive instant feedback on these questions and we encourage you to review the material and try the question again if you don’t get it the first time. You can take each assessment as many times as you wish to ensure that you get the full 5 points each time.
• You will only be graded out of 100 points for these assessments (your best 20 lectures, we will drop the 6 lowest assessments).
• No make-ups or extensions will be allowed since we drop the lowest 6 scores.
QUIZZES (70 points, ~16% of your total grade)

• **Eleven (11)** quizzes will be given during the semester on D2L, one after each full week of lecture. We will drop your lowest four (4) scores.
• Each will be worth 10 points,
• Quizzes will become available after the lecture podcast is posted on Thursday and due before the following lecture begins on Tuesday at 11am: no make-up quizzes will be given (because the lowest two are dropped).
• Questions on the quizzes will be similar to those on lecture assessments and on upcoming exams.

PROJECT (30 points, ~7% of your total grade)

• You will have an opportunity to work on a project this semester that in some way makes the world a better place.
• Examples are to work with the UA Recycling Club in improving recycling opportunities on campus, help remove invasive species of plants from Saguaro National Monument, refuse every plastic bag/bottle offered this semester and explain to someone each time why this is important, read books to children at the library, make bat boxes, volunteer at the food bank, ride your bike instead of driving your car, etc.
• The project should be **something that you will actually do** this semester, not just a good idea for someone else to do!
• This project fulfills a large part of the University of Arizona General Education writing requirement (http://gened.arizona.edu/content/writing-component).

The project has three components:

A) **Project Proposal** (10 points)

- Describe your planned activity in a ~750 word proposal (~1½ pages single-spaced, ~2½ pages double-spaced), due on Tuesday, September 15th at 5pm.
- Proposals should be submitted into the appropriate Dropbox on D2L.
- Full credit will be awarded only if the proposal is prepared in a professional manner, with correct spelling, grammar, and format (12-point font, 1 inch margins).
- Each proposal must include:
  - Title of activity
  - Your name and email
  - Short description of your project (one paragraph).
  - Proposal body that describes the activity in detail (what will you actually be doing, when, where, for how long, etc.). You should do some research on the topic, with information from at least two outside sources, and include citations for sources used. (3-5 paragraphs)
  - Summary that explains why the activity will help make the world a better place (one paragraph).
  - Ideas on how you will document your efforts: photos, journal, video, receipts, etc. (1-2 sentences)
  - References (URL’s are acceptable for internet –based sources)

B) **Project Proposal Returned**:

- This proposal will be returned to you with feedback about your proposal and possibly suggestions for improvement by Monday September 28th at 5pm.
- You will then have ~10 weeks to complete the assignment.
- If you choose, **you may resubmit a revised proposal for regrading** by Friday, Oct 2nd at 12n.

C) **Project Final Report** (20 points)

- Describe how your project turned out in a ~2-3 page report (~750 words again plus pictures and/or log entries, etc.).
- Use the same format as the project proposal, but emphasize what you actually did for your project and whether it was successful.
- You may want to consider addressing the following questions:
  - What did you actually do?
  - Was it a worthwhile activity for you?
o Did you succeed in making the world a better place?
  o Do you have plans to continue this or other related activities?

• For your report, we encourage you to be honest about how the project actually went: **why you succeeded or failed and what you learned by trying is the most important thing.**

• **You must document your efforts** with photos (selfies or other), video, journal entries, receipts – anything that helps us see your hard work!

• The **final report is due on Dec. 1st at 5pm** into the appropriate Dropbox.

**EXTRA CREDIT** (up to 25 points)

There will be several opportunities to earn extra credit during the semester, as described below. **You will be allowed to earn up to 25 total extra credit points (~5% of the total),** where each extra credit point counts the same as an exam or a homework point. Opportunities include:

• **Participate in Class!!** We will commonly ask for volunteers to answer a question, describe a process, or help with an explanation in class. **Participation will be rewarded.**

• **Pretest/Get to know you** (10 points): We like to see how much oceanography students know when they start this course, so we offer an extra credit 10-question pretest as a quiz on D2L. As part of the pretest, we would also like for you to tell us a little about yourself so we can try to get to know you this semester. Help make this happen by telling us a bit about your background and interests, and consider uploading a picture of yourself to your D2L page. **This opportunity is available through Sept 4th at 5pm.** The link can be found under “Extra Credit Opportunities” on the Content page of D2L.

• **In-Class Presentations** (up to 10 points, only one, for Synchronous Participation): This is an opportunity to earn extra credit points by presenting non-traditional oceanographic information to the class. Your presentation could be (1) a slide show in which you describe the oceanography or geology of some place that you have visited or lived, (2) a song (performed live!) with oceanographically oriented lyrics, (3) a multimedia depiction of a marine process, (4) a diagram that you have developed which describes a marine feature or process, etc. **Almost anything goes!!** **Note that we need to approve your idea beforehand, your presentation must be scheduled at least one week in advance, and we will do only one presentation per class period, so spots are limited.** You may work with up to one other person on your presentation, but no more than 2 people can get credit for any presentation. The sign-up sheet is available through D2L in the Groups Section.

• **Write a Letter to Your Congressman** (up to 10 points): Write a letter to your congressman or senator (if you don’t know who your congressperson or senator is, look it up!) that addresses some impact of our activities on the marine environment. Some examples are dams, climate change, sea level rise, otters, removal of mangroves, off-shore oil drilling, coral bleaching, whaling, seals, etc. Do web research to learn more. Write a 1-page letter (200-250 words) that will influence policy. The letter can be pro or con. This is a professional letter so use a spell-checker! Turn in your letter in to the appropriate D2L Dropbox by Tuesday, Dec. 1st at 5pm.

**Grading Scale and Policies**

455 points are possible from exams (150 points), lecture assessments (100 points, drop 6) homework (80 points), quizzes (70 points, drop 4), project (30 points) and extra credit (25 points).

**Grades are straight A, B, C, D, E calculated by percent out of 430 points:**

A = ≥90% = 387-455 points
B = 80% to 89.9% = 344-386 points
C = 70% to 79.9% = 301-343 points
D = 60% to 69.9% = 258-300 points
E = <59.9% = <257 points

Every point counts! We will NOT adjust your grade at the end of the semester even if you miss the cutoff for the next letter grade by only 1 point, so please don’t ask!
In order to manage a class of this size and be fair to all 600 (or more) students, we rigorously stick to rules laid out in this syllabus and can not offer any opportunities to an individual student that are not available to all students.

Dispute of Grade Policy:
It is YOUR responsibility to address grading concerns promptly within 2 weeks of the assignment due date or exam date. We will post grades to D2L and return materials to you within one week of the due date or exam date. You then have one additional week to retrieve your graded material and make sure that the grade on the paper matches the grade posted in D2L. If no grade is posted, it is our assumption that you did not hand in the assignment, so it is your responsibility to let us know if we are in error. We will NOT alter your posted grade after the 2-week window has passed. If a week has passed since you handed in an assignment and you do not have a grade or are unhappy with your grade – please contact us at ua.oceanography@gmail.com so we can address your concerns.

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal respectively.

Honors Credit
Honors students can earn Honors credit in this course by signing up for Section 002 (Flex/In Person) of Geos 212. You will earn honors credit by serving as a preceptor in the course, which involves attendance at a mandatory, once-a-week Zoom meeting on Fridays 1:00-1:50p, and hosting a one-hour-per-week study group on Zoom (see above description of study group activities). Please contact Joellen or Paul if you are interested in switching into the Honor’s section of this course.

Accessibility and Accommodations
Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit http://drc.arizona.edu.
If you have reasonable accommodations, please plan to meet with Joellen or Paul by appointment or during office hours to discuss accommodations and how these course requirements and activities may impact your ability to fully participate.
Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

If at any time you are not doing as well in the class as you should be, please seek some advice!

Inclusiveness, Diversity, Equity
• Inclusive Excellence is a fundamental part of the University of Arizona’s strategic plan and culture. As part of this initiative, UA embraces both the principles and the practices of diversity and inclusiveness. These values are expected, respected and welcomed in this course. See https://diversity.arizona.edu/
• The University recognizes that many members of its community use names other than their legal or official names first provided to the University (official/legal name) to identify themselves. For some, a chosen or preferred name may be an important component of their identity, especially their gender identity. If you would prefer that a different name from your legal one or the one that appears on the class roster be used in our classroom, please email us at ua.oceanography@gmail.com, so that we can use the best name and pronouns for you. As the course includes group work and in-class discussion, it is vitally important for us to create an educational environment of inclusion and mutual respect.
• University of Arizona students and employees may choose to identify themselves within the University community using a preferred first name that differs from their official/legal name. A
student or employee’s preferred name will appear instead of the person’s official/legal name in select University-related systems and documents, provided that the preferred first name is not being used for the purpose of misrepresentation. Please see the following link for more information: http://lgbtq.arizona.edu/use-chosen-or-preferred-names

Title IX
- The University of Arizona is committed to removing educational barriers created by sex discrimination and sexual harassment. Sex discrimination under Title IX can include acts of violence based on sex, such as sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, you have options for help at the University. The University of Arizona has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.
- Please be aware that UA faculty and instructors who work with students are required to report allegations of sex discrimination to the Title IX Office. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking that involves another student or employee, or that happens on campus or in a UA program, I must share that information with the Title IX Coordinator. Although I have to make that notification, you will have choices regarding whether or not you want to pursue a formal complaint against anyone on campus. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.
- If you wish to speak to someone privately, you can contact the on-campus resources listed below.

Additional Resources for Students
- UA Academic policies and procedures are available at: http://catalog.arizona.edu/policies.
- Student Assistance and Advocacy information is available at: http://deanofstudents.arizona.edu/student-assistance/students/student-assistance
- Office of Diversity (http://diversity.arizona.edu/)
- Campus Health Counseling and Psych Services: http://www.health.arizona.edu/counseling-and-psych-services
- Campus Health OASIS Sexual Assault and Trauma Services: http://www.health.arizona.edu/oasis-sexual-assault-and-trauma-services
- Campus Health, https://health.arizona.edu/home, (520) 621-6490
- University of Arizona Ombuds, https://ombuds.arizona.edu/, (520)-626-5589
- Title IX section on sexual assault support & resources (https://titleix.arizona.edu/title-ix/sexual-harassment-violence) has more information, as well as a link explaining options if you have a concern, need assistance/support, or would like to file a complaint.

Campus Pantry
Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the Dean of Students for support. In addition, the University of Arizona Campus Pantry is open for students to receive supplemental groceries at no cost. Please see their website at: campuspantry.arizona.edu for open times.

Classroom Behavior Policy
To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

A) Attendance: “Attendance” credit will be earned by completing a “Lecture Assessment” on D2L for each lecture. Completion of these “Lecture Assessments” is required for a portion of your grade (see grading section below). You are encouraged to come to every class and take careful notes, as there is no book for the course and not all of the information presented in class is highlighted on the slides! There will be announced and unannounced quizzes and extra credit opportunities during several
classes this semester. We also use clickers in class to encourage participation, understanding and engagement.

B) Computers (Laptops/iPads): As long as you are not disrupting the learning environment, the use of laptop computers or iPads/tablets is permitted during class for taking notes or class-related activities.

C) Cell phones: The use of cell phones for voice or text communication during class is a distraction to the learning environment and is therefore prohibited. If you have to make or receive a call/text during class, please step into the hallway and return when you are done.

D) Audio/Video Recording: The recording of any portion of a lecture with a camera, cell phone, laptop, iPad, tape recorder, etc., is expressly prohibited without the prior authorization of the instructor. Contact Joellen or Paul (ua.oceanography@gmail.com) before you record any lecture.

Disruptive Behavior Policy

UA Policy on Disruptive Behavior In An Instructional Setting:


- Disruptive Behavior is Prohibited: "Disruptive behavior" means conduct that materially and substantially interferes with or obstructs the teaching or learning process in the context of a classroom or educational setting. Disruptive behavior includes conduct that distracts or intimidates others in a manner that interferes with instructional activities, fails to adhere to an instructor's appropriate classroom rules or instructions, or interferes with the normal operations of the University.
- Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Threatening Behavior Policy

UA Policy on Threatening Behavior By Students:

See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students for the complete policy.

- Threatening Behavior is Prohibited: "Threatening behavior" means any statement, communication, conduct or gesture, including those in written form, directed toward any member of the University community that causes a reasonable apprehension of physical harm to a person or property. A student can be guilty of threatening behavior even if the person who is the object of the threat does not observe or receive it, so long as a reasonable person would interpret the maker's statement, communication, conduct or gesture as a serious expression of intent to physically harm.
- The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself.

Notification of Objectionable Materials

This course may contain material of a mature nature, which may include explicit language, depictions of unsettling animal behaviors and/or violence, and/or human cruelty. The instructor will provide advance notice when such materials will be used. Students are not automatically excused from interacting with such materials, but they are encouraged to speak with the instructor to voice concerns and to provide feedback.

Code of Academic Integrity

Policies of the University of Arizona
See [http://deanofstudents.arizona.edu/codeofacademicintegrity](http://deanofstudents.arizona.edu/codeofacademicintegrity) for the complete policy.

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: [http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity](http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity).

The University Libraries have some excellent tips for avoiding plagiarism, available at [http://new.library.arizona.edu/research/citing/plagiarism](http://new.library.arizona.edu/research/citing/plagiarism).

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor’s express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

Violations of the UA Code of Academic Integrity are serious offenses at the University of Arizona. As your instructor, I will deal with alleged violations in a fair and honest manner. As students, you are expected to do your own work and follow class rules on all tests and assignments unless I indicate differently. Alleged violations of the UA Code of Academic Integrity will be reported to the Dean of Students Office and may result in sanction(s) (i.e., loss of credit on assignment, failure in class, suspension, etc.)

**Policies of the Department of Geosciences, University of Arizona**

1. **Underlying Principle:** Unless specified in the assignment, all work and all words used to describe the results of an assignment must be the student’s own. No material, whether paragraphs, sentences or phrases may be copied from another student or from any external source. External material that is used, usually for a specific reason, must be accompanied by a citation of the source.

2. **Individual Assignments:** In some cases, students will be told that no conferring is allowed; if that is the case, students must not discuss their work with others, or show others their work. More often, Geosciences faculty will encourage discussion among students, because this facilitates learning. In such a case, any ideas and concepts may be discussed openly, but the student is still responsible for his/her own work turned in for grading. Identical paragraphs, sentences, phrases, or notations on a map/illustration cannot be used by two or more students. The best way to avoid this is for students to discuss the assignment, but then separate from each other in order to produce the work to be turned in for grading, and not share electronic files using e-mail, flash drives or other methods.

3. **Group Assignments:** Geosciences faculty routinely give two kinds of group assignments. Category 1 is a group assignment where students work in parallel on the same material (for instance a mapping exercise), but then turn in individual work for grading. Discussion is encouraged, but it is essential that each student do the written or map work individually first, after which ideas may be exchanged and interpretations modified before the work is graded. Copying of another’s work is prohibited, and this can be avoided in the same way as for individual assignments. Category 2 is a group assignment where students work explicitly as teams, perhaps with each member performing parts of a complex task (such as a geophysical or analytical experiment), and a combined product will be graded with equal scores for all members of the team. In this case, full discussion of the work, before any write-up takes place, is expected. The instructor will inform students whether a group assignment is Category 1 or 2.

4. **Reporting of Cheating:** All incidents of cheating or plagiarism, including facilitating of same, will be reported to the Dean of Students’ office and the College of Science. As well as the violations in take-home or field assignments detailed above, this will include any violations during quizzes and exams. The University’s procedure and forms give students an opportunity to explain to the instructor, and to comment upon (or rebut) any accusations in writing before the forms are turned in. But the forms can be turned in, reporting the cheating incident, even if the student fails to meet with the instructor or does not countersign the paperwork.
5. **Expectation of Student Integrity**: Instructors in the Department of Geosciences set a high standard for themselves as educators, and they expect that students, both in general education and majors’ classes, will do the same for their own education. Thus cheating and plagiarism will not be tolerated.

6. **UA Code of Academic Integrity**: The above policies are a statement of what students and faculty should expect within Department of Geosciences, or in general education courses offered by the Department. It does not replace the UA’s Code of Academic Integrity (see next section).

**UA Nondiscrimination and Anti-harassment Policy**

**UA Policy on Nondiscrimination and Anti-harassment**


- The University is committed to creating and maintaining an environment **free of discrimination**.
- Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

**Confidentiality of Student Records**


**Subject to Change Statement (This version is dated 8/20/20)**

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.
<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>LECTURE</th>
<th>Homework/Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/25</td>
<td>Intro to Course &amp; Water in the Universe</td>
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<tr>
<td>2</td>
<td>8/27</td>
<td>Plate Tectonics, Spreading Centers, Age of Ocean Floor</td>
<td>HW1 out (on D2L)</td>
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<tr>
<td>3</td>
<td>9/1</td>
<td>Hot Spots, Subduction Zones, Volcanoes</td>
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<tr>
<td>4</td>
<td>9/3</td>
<td>Ocean History, Sea Level, Rivers</td>
<td>HW2 out</td>
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<td></td>
<td>9/4</td>
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<td>HW 1 (on D2L) due 12n</td>
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<td>9/4</td>
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<td>XC GetToKnowYou due 12n</td>
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<tr>
<td>5</td>
<td>9/8</td>
<td>Sediment Cycle: Mountains &amp; Weathering</td>
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<tr>
<td>6</td>
<td>9/10</td>
<td>Sediment Cycle: Transport &amp; Deposition</td>
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<td>9/11</td>
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<td>HW2 due at 12n</td>
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<td>7</td>
<td>9/15</td>
<td>Seawater Chemistry: Salinity</td>
<td>Project Proposal due 5pm</td>
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<td>8</td>
<td>9/17</td>
<td>Seawater Chemistry: Gases &amp; Hydrologic Cycle</td>
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<td>9/18</td>
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<td>9/22</td>
<td>Sunlight, Color &amp; Temperature</td>
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<td>9/22</td>
<td>Review Session (6:30-7:50pm, on Zoom)</td>
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<td>9/22</td>
<td>EXAM #1 - opportunity #1 (8-10pm, on D2L)</td>
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<td>9/23</td>
<td>Review Session (6:30-7:50pm, on Zoom)</td>
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<td>9/23</td>
<td>EXAM #1 - opportunity #2 (8-10pm, on D2L)</td>
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<td>9/24</td>
<td>EXAM #1 - opportunity #3 (11-12:15p, on D2L)</td>
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<td>9/25</td>
<td>EXAM #1 - opportunity #4 (12:30-1:45, on D2L)</td>
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<td>9</td>
<td>9/29</td>
<td>The Atmosphere</td>
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<td>10</td>
<td>10/1</td>
<td>Surface Currents, Heat Transport, Climate</td>
<td>HW4 out</td>
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<td>10/2</td>
<td>EXAM #1 - MAKEUP (2-3:15pm, on D2L)</td>
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<td>11</td>
<td>10/6</td>
<td>Waves &amp; Surfing</td>
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<td>10/8</td>
<td>Coastal Currents</td>
<td>HW4 due at 12n</td>
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<td>10/13</td>
<td>Shallow Upwelling/Downwelling (Winds)</td>
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<td>14</td>
<td>10/15</td>
<td>Deep Upwelling/Downwelling (Winds &amp; Density)</td>
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<td>15</td>
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<td>El Niño &amp; Hurricanes</td>
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<td>16</td>
<td>10/22</td>
<td>Tsunami &amp; Tides</td>
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<td>Climate Change</td>
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<td>19</td>
<td>11/3</td>
<td>Intro to Marine Life</td>
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<td>11/5</td>
<td>Food Webs</td>
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<td>21</td>
<td>11/10</td>
<td>Kelp &amp; Mangroves</td>
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<td>22</td>
<td>11/12</td>
<td>Coral Reefs</td>
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<td>11/17</td>
<td>Fish, Fisheries, Open Ocean</td>
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<td>24</td>
<td>11/19</td>
<td>Whales &amp; Dolphins</td>
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<td>11/24</td>
<td>Deep Sea &amp; Hydrothermal Vents</td>
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<td>NO CLASS - Thanksgiving Break</td>
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<td>26</td>
<td>12/1</td>
<td>Marine Pollution</td>
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<td>NO FINAL EXAM!!</td>
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