

GEL/ESP 116: Oceanography
Spring 2020
Professor Tessa Hill

Objectives:

Our primary objective this quarter is to maintain the safety and health of all students. Given these circumstances, we further seek to provide the best possible educational environment to learn about the topics in this course.

In this class, we aim to investigate the field of oceanography, with emphasis on research techniques, current research questions, scientific approach, oceanographic data, and analytical skills. This course provides a general introduction to these topics (in-depth examination of these topics takes place in other Oceanography courses at UCD), with these specific objectives:

- 1) Understand and integrate fundamental principles in marine science, including
 - a) Development of modern ocean/earth system
 - b) Adaptation of marine life to the ocean environment
 - c) Impact & importance of ocean circulation
 - d) Biogeochemical cycles & ocean productivity
 - e) Processes at the terrestrial-marine interface
 - f) Anthropogenic impacts and management of marine resources
- 2) Develop skills to communicate scientific information through different methods (written, oral, group collaboration)
- 3) Interpret and discuss scientific data and published literature
- 4) Evaluate modern issues in marine science

What we expect from you, as students:

In this online format, we have specific requirements for course success. Students need to:

- Watch assigned videos prior to class meetings on Monday
- Log in prepared for class (Monday + Discussion sections), having read assigned background material
- Participate in class projects, discussions, and presentations
- Think critically about scientific questions & major issues in marine science
- Work from a quiet, focused space while online for class meetings (no driving, exercising, or otherwise multitasking while participating in class activities)

What you can expect from your teaching staff:

We strive to:

- Provide you with information on current oceanographic topics & research
- Prepare and present the necessary background information that you will need
- Be available for questions and discussions
- Creatively manage technological challenges and remote teaching to provide you the best possible learning environment

Class Schedule:

Online Lecture: Recorded material available (~1 hour) each week by Friday
Online Zoom class on Mondays, 2:10-3:10pm*
*You will need to watch recorded material PRIOR to Monday class

Discussion Section (Required): Weds or Thursday (depending upon your enrolled session), via Zoom.

Field trip: TBD, but if possible we'll run this **optional trip** on Saturday May 30, ~9am-3pm; trip will be focused on impacts of sea level rise in the SF Bay Area.

Your Teaching Staff & How to contact us

Professor Tessa Hill tmhill@ucdavis.edu - but it is better to use Canvas or Piazza

Teaching Assistants:

Cait Livsey cmLivsey@ucdavis.edu
Meghan Zulian mzulian@ucdavis.edu

Contact your teaching staff: The best way to contact all three of us is to use the email tool on Canvas, and/or post a message on Piazza.

We will be using Piazza for class discussions and as a place to post questions. The system is highly catered to getting you help efficiently from classmates and teaching staff. Rather than emailing questions to the teaching staff, we encourage you to post your questions on Piazza. *You can post questions directly to Professor Hill, or post them publicly (to the class), and you can also do so anonymously.*

Find our class page at: piazza.com/ucdavis/spring2020/gelesp116

Office Hours:

Meghan Zulian: Tuesdays, 3-4pm, via Zoom
Cait Livsey: Wednesdays, 11-12am, via Zoom
Professor Hill: Thursdays, 11-12am on Piazza

Required Reading:

- There will be weekly assigned readings from peer-reviewed journals (posted on Canvas). These are due prior to class starting on Monday, as they will be discussed in lecture and sections that week.
- Readings from two assigned books: *Sea Change* (Sylvia Earle) + a second book that you will get to choose (from a reading list).
 - Please order *Sea Change* so that it arrives by the 2nd week of class (April 6).
 - There is a digital copy online on Canvas - if you don't want to purchase book (or can't get a copy in time)
- Lecture material is derived from *Ocean Biogeochemical Cycles* (Open University Press), which is an excellent book (purchase is not required for this course)

Grading & Class Policies

To do well in the course, you need to participate fully and put your best effort into all assignments and class activities. Your overall grade is based upon:

Class participation	10%
Weekly journal assignments	15%
Reading reflections (due: April 20, May 25)	15%
Discussion section activities & participation	20%
Presentation (in Discussion section)	10%
Storytelling Assignment: Essay, Speech, or Journaling	10%
Final Essay (due June 5)	20%

Missed classes, participation grades, and extra credit

It is assumed that you will attend all Monday lectures, and participation points will be accrued at each lecture. However, we recognize that there are important and valid reasons that you may need to miss class. As such, we will provide extra credit opportunities during the course that will enable you to make up points missed during two (2) absences.

It is assumed that you will attend all discussion sections. However, we are aware that circumstances may prevent you from fully participating in a section at some point. As

such, we will automatically drop your lowest discussion section score from the gradebook.

If you are sick, or caring for a sick family member or housemate: Please contact your instructors as quickly as possible so that we can make a plan for your work in this class.

Class Schedule - *this is a working draft, subject to change by teaching staff*

UC Davis Code of Academic Conduct

The UC Davis Code of Academic Conduct exists to support high standards of behavior and to ensure fair evaluation of student learning. Students who violate the Code of Academic Conduct are subject to disciplinary sanctions that include censure, probation, suspension, deferred separation or dismissal from the University of California. Unless specifically authorized by the instructor in writing, misconduct includes, but is not limited to the following: academic misconduct on exams and coursework, plagiarism, misuse of course materials, and class disruption. Please read the full Code here, as violations resulting in suspension or dismissal will be marked on the student transcript:

<https://ossja.ucdavis.edu/code-academic-conduct>

Accommodations for this course

Any student who feels he or she may need an accommodation based on the impact of a disability should contact Prof. Hill privately to discuss his or her specific needs. In addition, the student should contact the Student Disability Center (SDC) at (530) 752-3184, sdc@ucdavis.edu (and <https://sdc.ucdavis.edu/>) as soon as possible to better ensure that such accommodations can be implemented in a timely fashion. All accommodations must have prior approval from the SDC on the basis of medical or other appropriate documentation.

Diversity & Inclusion

The Department of Earth and Planetary Sciences is committed to creating a community that respects each person as an individual. We promote diversity, creativity, and rigorous intellectual inquiry for all members of our department and the University community, through excellence in research, teaching, mentoring, and service. Diversity and excellence – in perspectives, scientific approaches, and contributions to society – are the cornerstones of our success as a department. The department is committed to the UC Davis Principles of Community. Earth and Planetary Sciences faculty members encourage individuals, representing all races, creeds and social circumstances, to join our community of scholars with a common interest in the world around us and beyond.

As part of this course, we are especially committed to increasing the representation, expertise, and voices of populations that have been historically excluded from participation in US higher education and the scientific enterprise. You may observe this commitment in our course readings, in the way in which discussions are moderated and facilitated, and in the design of the course. If there is any way that we can additionally improve the inclusion of members of this course please bring your ideas to the teaching staff.