



Syllabus: INTRODUCTION TO OCEANOGRAPHY
OCE 1001, Fall 2021 (Sec: 19CA, #16209, 3 credits)

*What does the deep sea say? Oh what does the deep sea say?
It moans, it groans, it flashes and it foams, and rolls on its weary way (Traditional)*

Meeting Time/Place: Mon./Wed./Fri., Period 5 (11:45 AM - 12:35 PM) in Williamson Hall 100

Instructor

Andrew R. Zimmerman, Ph.D.

Associate Professor, Department of Geological Sciences, University of Florida, Office: (352) 392-0070

Office Hours: The 1 hour following each class or by appointment, Williamson Hall 364 (e-mail me to set up a time)

e-mail: azimmer@ufl.edu (but generally use Canvas Messaging tool instead)

website: <http://people.clas.ufl.edu/azimmer/>

Teaching Assistant

Jing Lyu, WM Hall 274

e-mail: jinglyu@ufl.edu (you are welcome to make an appointment to visit)

Overall Course Objectives

- Learn the major geological, physical and biological characteristics of Earth's marine realm.
- Understand the role of the ocean in shaping the global Earth environment.
- Develop an enhanced awareness of how the ocean influences human well-being and vice versa.
- Realize the importance of science and how it can enhance our appreciation for the complexity and beauty of the world around us and solve real-world problems. Hopefully, this will translate into an eagerness to explore science-topics further and to vote and consume goods as a scientifically-educated citizen.

Course Website on Canvas

Go to <http://ss.at.ufl.edu/> and click on the e-Learning in Canvas to Log In. You must have an active GatorLink ID to access the course website. If not, go to the GatorLink website (<http://gatorlink.uf.edu>) or call the help desk at 392-HELP for assistance.

The course site provides access to grades, announcements, downloadable lecture notes/outlines and discussion and exercise assignments. It is the student's responsibility to see that their grades are correctly recorded in the on-line gradebook. It is recommended that students adjust Canvas settings so that Announcements are sent to phone or email.

Recommended Textbook and Extra Credit

No text book is required for the course. Any introductory oceanography textbook that you may find, even an old one, is probably sufficient to serve as a secondary source of information that can provide you with additional information and alternative explanations of the material covered in the lecture and on the quizzes. I will place some textbooks on reserve in Marston Library.

HOWEVER, use of the following textbook and its companion website (Mastering Oceanography) will provide you with an opportunity for extra credit points that can boost your final grade tally by up to 6% (more info below).

Textbook option info:

Recommended (and needed for Extra Credit Assignments): Trujillo & Thurman: Essentials of Oceanography Plus Modified MasteringOceanography with eText --13/e

OPTIONS:

- a. Modified Mastering Oceanography with Pearson eText: ISBN-13: 9780135486795, \$79.99
- b. Modified Mastering Oceanography without Pearson eText: ISBN-13: 9780135486986, \$44.99
- c. Loose-leaf text only: #9780135204306, \$139.99 (bookstore)
- d. Paper text only: #9780134891521, \$206.65 (bookstore)

Whether you purchase the 'Modified Mastering' from within Canvas or elsewhere, to do the extra credit, you need to register it within Canvas. The process is described here:

<http://www.youtube.com/watch?v=NlbR6zpdKRQ>. If problems, students should contact Pearson tech support directly: <https://support.pearson.com/getsupport/s/>.

Grading

3 Exams (in class, curved to 85% median)	72% total (28%, 28%, 16% for lowest exam score)
Group Discussions	10% total (5 on Canvas, 2% each)
Homework exercise	18% total (6 on Canvas, 3% each)

Final letter grade:

A = ≥93%, A- = 90-92.99, B+ = 87-89.99, B = 83-86.99, B- = 80-82.99, C+ = 77-79.99, C = 73-76.99, C- = 70-72.99, D+ = 67-69.99, D = 63-66.99, D- = 60-62.99, E < 60

There will be no 'rounding up' of grades so please do not ask. The only extra credit that will be offered is **6%** final grade points for work done on *MasteringOceanography* and **2%** for going on the field trip (details below).

***Note:** An earned grade of 'C-' grade or below does not qualify for major, minor, Gen Ed, or college basic distribution credit.

Exams

Exams will be about 50-60 multiple choice questions (often the same or similar to those that appear as in-class Review Questions). Everything associated with the class is fair game on exams. However, the focus will be on material presented in lecture. Exam material is cumulative but *focuses on each third of the course*. I will offer pre-exam Q&A sessions. Make-ups for exams will only be given by pre-arrangement (before the exam) or under extraordinary circumstances.

- 1st in-class exam Fri. Sep 24
- 2nd in-class exam Fri., Nov. 5
- 3rd exam (final exam) Wed. Dec 15, 3 -5 PM

Exam grades will be curved to a median of 85% using a linear method described at:

<http://www.ats.amherst.edu/software/excel/excel-grading/excel-grades/#CurvingGrades>. As a result, more than half the class will get at least a B on exams.

Group Discussions

Group Discussion will take place in the Discussion link section of the course Canvas website from Thursday-through Sunday (11:59 pm) at the end of weeks 2, 4, 8, 10, 13 of the course. Each student is required to make at least *one substantive comment addressing the posed question, as well as one response to another student's comment* (each is usually at least 2-3 sentences). The best comments will utilize knowledge and insights gained from the materials presented in lectures and readings.

- justify your answers with facts (if not from our lectures, provide the source)
- stay on topic and address every part of the discussion question.

Exercises

Six exercises will be assigned during the semester. All but one of them will be done on the Canvas class website (Assignment tab). Homework assignments can be turned in late, but only within one week of the due date and only for half credit. You will receive in-class and e-mail reminders when these assignments are due.

Extra Credit

There are 6 assignments on the MasteringOceanography website worth a possible 6% addition to your final grade. Two assignments should be completed before each of the three exams to receive full credit. Each one can be done in roughly 2 hours. Your score on a 'Mastering' lesson will represent the fraction of the 1% extra credit you will be awarded. For example, if you did only 2 lessons and got a 70% and a 90%, you would get $0.7 + 0.9 = 1.6$ % points and your grade might go from 89% or a B+, to 90.6%, an A-.

The 'Mastering' assignments are designed to help you learn the material and do better on exams (by letting you stop and consult the e-textbook, allowing partial credit for getting the answers on your second try or after providing a hint). Thus, full credit will be awarded only if assignments are completed before taking class exams on the corresponding material covered. Only half credit will be awarded for assignments completed before the final (third) exam. Mastering also has dynamic study modules for each chapter to help you study.

The only other potential extra credit opportunity (2% final grade increase) will be an **optional field trip on Wed. Nov. 10 Seahorse Key Marine Lab, Cedar Key, FL**. Transportation will be provided from Gainesville. We will leave G-ville immediately after class. We will explore the marine ecology of the area by doing a shipboard marine trawl and plankton tow, seine netting, and use the tanks and microscopes at the lab. More info will follow.

How to do well in this class

Skeleton notes for each lecture will be posted on the class website, usually one day before the lecture. Keep in mind that these are NOT complete notes. I recommend taking your notes on top of these. Everyone has his or her own study techniques, but here's my recommendation. The more frequently you are exposed to the material, the more likely you are to grasp the concepts and ideas presented. So I recommend skimming the designated reading before lecture. After class, really read the text focusing on the material covered in lecture and concentrating on figures and illustrations. Make note of questions or concepts to have clarified by me or your TA later. Attend pre-exam review sessions with a list of questions for me to answer. Use the office hours provided for you to ask questions or just to come in and chat. Be responsible for your own education. If you miss a class, get the notes from a colleague before the next class. It is not my intention that you be forced to memorize many trivial facts. Instead, I think you can succeed by being very familiar with the visual images (figures, graphs etc. shown in lecture or textbook). If you really understand the pictures, then you really understand the concepts.

Miscellaneous

This is a large class, so small disturbances rapidly multiply into large disturbances. Creating a disturbance is rude to your classmates and to me. I consider the following to be rude:

- No use of computers other than viewing and taking class notes will be allowed during class.
- No eating or reading the newspaper will be allowed in class during class.
- Entering the class late or leaving early. If you are more than 10 minutes late, I would suggest you do not enter. Leaving your seat before class ends, even to go to the bathroom, should be an extremely rare occurrence (i.e. should not happen). Make prior arrangement in the event of an extenuating circumstance.
- Talking with other students during lectures. If you have questions during the lecture, please address them to me. Chances are others have questions as well. Your comments and feedback are welcome.

Academic Honesty Policy

Students must conform to UF's academic honesty policy regarding plagiarism and other forms of cheating. This means that on all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The university specifically prohibits cheating, plagiarism, misrepresentation, bribery, conspiracy, and fabrication. For more information about the definition of these terms and other aspects of the Honesty Guidelines, see <http://www.dso.ufl.edu/sccr/process/student---conduct---honor---code/>. All students found to have cheated, plagiarized, or otherwise violated the Honor Code in any assignment for this course will be prosecuted to the full extent of the university honor policy, including judicial action and the sanctions listed in paragraph XI of the Student Conduct Code. For serious violations, you will fail this course.

Accommodations for Students with Disabilities

Please do not hesitate to ask for accommodation for a documented disability. Students requesting classroom accommodation must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drp/>). The Dean of Students Office will provide documentation to the student, who must then provide this documentation to the Instructor when requesting accommodation. Please ask the instructor if you would like any assistance in this process. Please provide this information to me within the first two weeks of the semester.

Additional Resources

Students facing difficulties completing the course or who are in need of counseling or urgent help may contact the Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; or the University Police Department: 392-1111 or 9-1-1 for emergencies.

Other Resources available on-campus for students include:

- Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575
- U Matter, We Care: If you or someone you know is in distress, contact umatter@ufl.edu, 352-392-1575
- Student Health Care Center: Call 352-392-1161
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. To 'publish' means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services.

Introduction to Oceanography OCE 1001 – Fall 2021
Prof. Andrew Zimmerman - Tentative Schedule

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Reading</u>
		Background	<i>In Trujillo & Thurman</i>
1	Aug 23	Introduction to Course and Topic	Ch 1
	Aug 25	History and Methods of Oceanography	Appendix 1, 2, 3 & 5
	Aug 27	History and Methods of Oceanography	
2	Aug 30	Origins of Earth and Ocean	
	Sep 1	Origins of Earth and Oceans	
	Sep 3	Plate Tectonics Exercise 1 & 2 Due	
		Discussion #1 Due Sunday, Sep. 5	
		Marine Geology	
3	Sep 6	No class – Labor Day	
	Sep 8	Plate Tectonics	Ch 2
	Sep 10	Plate Tectonics	
4	Sep 13	Physiography of the Seafloor	
	Sep 15	Physiography of the Seafloor Exercise 3 Due	Ch 3
	Sep 17	Physiography of the Seafloor	
		Discussion #2 Due Sunday, Sep. 19	
5	Sep 20	Sediments	
	Sep 22	Sediments	Ch 4
	Sep 24	1st In-Class Exam (potentially on-line)	
		Marine Chemistry	
6	Sep 27	Water Chemistry	
	Sep 29	Water Chemistry	Ch 5, Appendix IV
	Oct. 1	Atmosphere Principles	
		Physical Oceanography	
7	Oct 4	Atmospheric Circulation	Ch 6
	Oct 6	Atmospheric Circulation	
	Oct 8	No class - Homecoming	
8	Oct 11	Surface Ocean Circulation	
	Oct 13	Surface Ocean Circulation	Ch 7
	Oct 15	Deep Ocean Circulation	
		Discussion #3 Due Sunday, Oct. 17	
9	Oct 18	Waves	
	Oct 20	Waves	Ch 8
	Oct 22	Tides Exercise 4 Due	

10	Oct 25	Coasts & Beaches	Ch 10
	Oct 27	Coasts & Beaches	Exercise 5 Due
	Oct 29	Coasts & Beaches	
		Discussion #4 Due Sunday, Oct. 31	
11	Nov 1	Climate Change – Evidence and Uncertainties	
	Nov 3	Climate Change and Sea level Rise	Ch 16
	Nov 5	2 nd In-Class Exam	
		Biological Oceanography	
12	Nov 8	Life in the Ocean – Intro.	Ch 12
	Nov 10	Life in the Ocean - Ecology	OPTIONAL FIELD TRIP
	Nov 12	Life in the Ocean – Primary Production	Ch 13
13	Nov 15	No class – Veterans Day	
	Nov 17	Life in the Ocean – Primary Production	
	Nov 19	Pelagic Organisms	
		Discussion #5 Due Sunday, Nov. 21	
14	Nov 22	Pelagic Organisms	Ch. 14
	Nov 24	No class - Thanksgiving	
	Nov 26	No class - Thanksgiving	
15	Nov 29	Pelagic Organisms	
	Dec 1	Biological Resources	Ch. 13 (p 430-441)
	Dec 3	Biological Resources	Exercise 6 Due
16	Dec 6	Benthic Communities	Ch 15
	Dec 8	Marine Pollution/Issues	Ch 11
	Dec 10	No Class - Reading Period	
	Dec 15	Scheduled Final Exam, Wednesday 3 -5 PM	