Marine Biology

Spring 2022

General Information

Class Days/Times:	T/TH 2-3:20; HSC 007
Instructor:	Dr. Deanna Soper
Office, Phone, and e-mail:	Science Building 145, 972-721-5245, dsoper@udallas.edu
Dr. Soper's Office Hours:	See the appointment calendar: bit.ly/SoperOfficeHours *Please note: Appointment slots are 15 minutes each. If you need more than that, please sign up for more than one consecutive slot.
Text:	Levinton, J. 2021. Marine Biology. 6th edition. ISBN: 978-0197543504

Mask Policy

Masks are *required* for this class. Please make sure you bring your own mask and wear it properly. Failure to bring a mask will result in you having to leave to go find one or return to your dorm room to retrieve your mask. If you have any questions about this policy, please e-mail Dr. Soper within the first week of class. There are other upper-level biology courses that are available with optional mask policies and for non-majors, there is a 100% virtual option that is offered over summer 2022 as well as over interterm (Fall semester) 2022.

Cell Phone Policy

Cell phones and tablets can be helpful tools during the learning process. However, it is important to use them wisely. Texting, talking on your phone, and emailing during lectures may result in deduction of points (amount is at the discretion of Dr. Soper) from your total score at the end of the semester. Use of your cell phone at all during a quiz or test will result in a zero on that assessment. This means: USE OF CELL PHONES ARE STRICTLY PROHIBITED DURING TESTS AND PAPER QUIZZES.

Introduction

Saltwater sources of water make up approximately 97% of planet Earth's water. This expansive ecosystem contains critical habitat for much of life that exists. Marine Biology is the application of several disciplines in biology to the marine aquatic environment and all of its inhabitants. This interdisciplinary course will address three major divisions: functional biology, ecological processes, and biodiversity. Biological processes will be emphasized with applications to ecology and evolution.

By the end of this course students should be able to:

-discuss and outline important abiotic (i.e. chemical) aspects of the marine environment

-read current literature and present a scientific paper.

-understand the different ocean environments and the organisms that live there
-understand how global climate change is impacting marine environments, particularly polar marine environments
-explain how human behaviors impact marine environments

Course Structure

Assessment and Requirements

Item	Quantity	Points	Total Points
Article Presentation	1	50	50
Peer Evaluation & Participation *lowest will be dropped, do not do one for your own presentation	7	10	60
Article Abstract *lowest will be dropped, do not do one for your own article	8	10	70
The Plastic Project	1	50	50
Exams	2	100	200
Total Points:			**430**

Article Presentation

You will look at the topics list in the course schedule (see below) and decide on one topic to focus on. You will choose one *primary literature paper* that is in the field of your chosen topic to do a paper presentation on. You will assign that paper for the rest of the class to read. You MUST sign up for your topic by the first Tuesday of the semester, topics are first come first serve. I will do a paper presentation the first week (I have chosen the paper, which is listed in the course schedule) to provide an example on how to do a paper presentation. You MUST have the paper title to me by the first Tuesday of the semester, no matter when you are scheduled to present. You MUST present on the assigned day. A failure to do so will result in an automatic zero on the assignment. Once your paper is chosen you will present the title to Dr. Soper for approval. After you have committed to an approved paper, you may NOT change it. Each student in the group will evaluate each of the other group members on effort put into the presentation, collegiality, and dedication. I also will grade presentations *individually*. This means that each group member will be evaluated on their portion of the presentation. You MUST submit this google form by the day of your presentation to complete the evaluation:
https://docs.google.com/forms/d/e/1FAIpQLSc6RmkFSNn2mK01x5lG--BiZnm2A_4R9Q27G_lDisUoU3DZVQ/viewform?usp=sf_link

Peer Evaluation & Participation

You are required and expected to attend class. This assignment cannot be made up. Each week you will read the paper assigned by your fellow classmates. You must do three things after reading the paper: (1) turn in a summary by the start of class upon which the article will be presented (2) participate in group discussions of the paper and (3) fill out an evaluation of your peer's presentation (on Google Forms). You must participate in paper discussions both in small-groups and class-wide settings. Your peer evaluation is due by the end of class that a presentation has taken place. For the article summary, please make sure to summarize the article *in your own words* (this means that you may not copy and paste any part of any sentence from the original article).

Article Abstract

You will read 9 papers assigned by fellow classmates and one by me. You will turn in your article synopsis via Brightspace by 2pm on the day the paper is presented. This is your way of demonstrating your understanding of the paper, so make sure to address all major aspects of the paper *in your own words*.

Elements of a good abstract
-2-3 sentences that state the background
-2-3 sentences of methods & organism information (if appropriate)
-1-2 sentences of results
-1-2 sentences of discussion
*The abstract needs to be **written in your own words**.
*The abstract should be between 250-350 words.

The Plastic Project

You will each evaluate your own use of plastics. The purpose is to become aware of the amount of plastics you use every day. For one whole day, take a picture of each item you use that contains plastics. Remember that you must include objects that have microplastics such as synthetic fibers used to make clothing. If you are unsure, read the labels and look up what composes each item. You must arrange all of the pictures on one powerpoint slide. After taking a 'bird's eye view' of your own impact, you will choose to eliminate one plastic from your life for ***at least one week***. You will document how you made the change, challenges that you faced, and your problem solving skills of overcoming those challenges. The presentation should be no more than 5 minutes long. You will develop a digital media presentation (i.e. power point, Prezi, etc.) that should:

1. Display your own plastic documentation slide.
2. Provide a slide on your one plastic you attempted to eliminate.
3. Provide a slide on challenges that you faced and how you overcame them.

Exams

There will be one mid-term exam and one final exam. Each exam will be worth 100 points each. The final exam will have a diverse mix of question types and it will be *cumulative*. Exams will cover both lecture material that covers textbook content as well as content derived from the primary literature reading assignments. **Please note: if at**

any time an exam needs to be given virtually due to COVID-19 or other unforeseen circumstances, the use of Proctorio will be required. Proctorio is a remote monitoring system that will record video, audio, and student screens and costs 5$ for each exam.

Other Important Notes:
*Late assignments will not be accepted and exams will not be able to be taken at a later date/time ***unless a unique and severe circumstance is present.*** If such a circumstance is present, you should notify me prior to the due date of the assignment or exam and be able to provide written documentation of the event.

****I do not give extra credit because you have performed poorly on the assignments/exams*** that are put forth in this document. I generally do not give extra credit at all, but when I do it is because a unique opportunity has arisen (i.e. guest speaker) that students would benefit from. However, I ***never*** give extra credit because students have performed poorly on an assignment/quiz/test.

Course Schedule

Week 1: Jan. 20
Topics: Introduction to the Course; Example Presentation by Dr. Soper; Break up into groups and schedule presentations.
I will present: Pawlik et al. 2008. Patterns of sponge recruitment and growth on a shipwreck corroborate chemical defense resource trade-off. *Marine Ecology Progress Series*. 368: 137-143.
Assignment: Article Summary for Pawlik et al. 2008 due Friday at 5pm & Submit the title for your chosen primary literature paper to Dr. Soper by Thursday, January 27th.

Week 2: Jan. 25 & 27
Topic: The Oceanic Environment; Physical & Chemical Properties
Chapter Reading: Chapters 2, 5, & 6

Week 3: Feb. 1 & 3
Topic: Global Climate Change & Impact on Marine Communities
Chapter Reading: Chapters 3 & 12
Student Presentation #1 - Thursday, Feb. 3

Week 4: Feb. 8 & 10
Topic: Coral Reefs and their restoration
Chapter Reading: None
Student Presentation #2 - Tuesday, Feb. 10

Week 5: Feb. 15 & 17

Topic: Coral Reefs and their restoration
Chapter Reading: None
Watch: *Chasing Coral* - Feb. 17

Week 6: Feb. 22 & 24
Topic: Introduction to Ecology and Evolution in Marine Environments
Chapter Reading: Chapters 4 & 7
Student Presentation #3 - Thursday, Feb. 24

Week 7: March 1 & 3
Topic: Open Ocean Organisms and Environment
Chapter Reading: Chapters 8, 9, & 10
Student Presentation #4 - Thursday, March 3

Week 8: March 8
MIDTERM *No class March 10

Week 9: March 22 & 24
Topic: Patterns & Processes in the Water Column
Chapter Reading: Chapter 11
Student Presentation #5 - Thursday, March 24

Week 10: March 29 & 31
Organisms of the Sea Bed
Chapter Reading: Chapters 13 & 14
Student Presentation #6 - Thursday, March 31

Week 11: April 5 & 7
Topic: Benthic Organisms Behavior and Habits
Chapter Reading: Chapter 15, 16, 17
Student Presentation #7 - Thursday, April 7

Week 12: April 12 - NO CLASS April 14 (Easter break begins)
Topic: Coastal Benthic Environments
Chapter Reading: Chapter 16 & 17

Week 13: April 19 & 21
Topic: Continental Shelf to Deep Sea
Chapter Reading: Chapters 18
Student Presentation # 8 - Thursday, April 21

Week 14: April 26 & 28

Plastic Project Presentations

Week 15: May 3 & 5
Topic: Polar Marine Biology, Biodiversity & Conservation; Human Impact on Marine Environments
Chapter Reading: Chapters 19, 20, 21 & 22

OTHER POLICIES

Withdrawing from the Course

A student who is unable to complete a course may withdraw and receive a grade of "W" through the tenth week of the semester. Students should consult with their instructor and advisor before withdrawing from a course.

Grading Scale		77 – 79.4	**C+**
100 – 97.5	**A**	73 – 76.9	**C**
89.5 – 92.4	**A-**	69.5 –72.9	**C-**
87 – 89.4	**B+**	67 – 69.4	**D+**
83 – 86.9	**B**	63 – 66.9	**D**
79.5 – 82.9	**B-**	59.5 – 62.9	**D-**
		<59.5	**F**

Attendance Policy

Students are expected to attend all classes as part of the normal learning process. In addition, students must be especially consistent in attendance, both on-ground and online. If students are absent and have an emergent cause for the absence, which has been approved by Dr. Soper, makeup exams and quizzes will be scheduled within one week of the absence unless circumstances prevent it. Dr. Soper will adhere to the University attendance policy. Please refer to the student handbook to read this policy.

Attendance for Athletes

ANY ATHLETE MUST BRING ME A SCHEDULE WITH THEIR ATHLETIC CONFLICTS FOR THE ENTIRE SEMESTER WITHIN ONE WEEK OF THE START OF CLASSES. In order to properly prepare for the course discussion, I need to know when I might have several students absent from the class in advance, and thus students need to bring me a highlighted athletic schedule so I can see when they will be missing due to an athletic event. Anyone who has not brought me their schedule within the first week of class and has to miss due to an

athletic event will receive an unexcused absence and will not be able to make up any quizzes/tests/points from the missed class.

General Rules and Expectations for the Course

1. Students are required to read the assigned textbook chapters. A good approach is to skim through the chapter before class and read it again after the lecture.
2. Assignments will be completed by the specified deadlines. The instructor is under no obligation to accept unexcused late assignments and can assign a score of zero points. Late assignments accepted by the instructor may be penalized 50% of the assignment's total value.
3. Students will conduct themselves in a courteous and responsible manner in class and keep scholastic integrity (see Academic Honesty).
4. Students have one week to challenge the grade given to an assignment, presentation, exam, or quiz. After one week, the grade is final.
5. Students are expected to check their University E-mail accounts and Brightspace on a regular basis for additional messages related to the course. Please use University E-mail accounts when communicating with the instructor electronically.
6. Students who are performing unsatisfactorily in the course are expected to discuss their performance with the instructor. The instructor is available by appointment outside of class to review course material and discuss strategies to improve performance.
7. The course schedule is subject to change. Deletions and substitutions in the syllabus schedule may occur.
8. **A NOTE ABOUT FINAL EXAMS**: You will be taking one comprehensive final exam. The final exam time is scheduled by the University and will not be set until after the mid-point of the semester. If you have two exams in one day, I WILL NOT allow you to reschedule the exam. If you have three exams in one day, you may request to take the exam 24 hrs **EARLY**. If you would like to make such a request, **you must do so within ONE WEEK of the final exam schedule coming out**. You must also provide written documentation via the registrar's office that your enrolled in two other classes that have an exam on the same day that the exam for this course is expected to be on. If you do not do this within one week of the final exam schedule being published by the Dean's office you are forfeiting the ability to request an early exam date/time.

Academic Honesty

Students are expected to maintain academic honesty through avoiding plagiarism and cheating. See the University of Dallas' policy on Academic Honesty at: http://www.udallas.edu/about/university-policies/academic_policies/academic-honesty.php

Change of Grade

The only reason for which a change of final grade may be requested **is an error** in the original recording of the grade. (THIS MEANS DO NOT E-MAIL ME AFTER FINAL

GRADES HAVE BEEN GIVEN REQUESTING EXTRA CREDIT OR A GRADE BUMP.) Students should check their transcripts and consult with the instructor if there is a question of error. The appeal for a change of grade must be made in the first three weeks of the semester following that in which the course was taken.