

IB 362—Marine Biology  
Fall 2019  
Lecture, Tues & Thurs, 9:30 - 10:50 am, 2020 NHB

**Instructor:** Dr. Carla E. Cáceres  
Professor, Department of Evolution, Ecology, and Behavior  
Director, School of Integrative Biology  
Lynn M. Martin Professorial Scholar  
433 Morrill Hall, [cecacere@illinois.edu](mailto:cecacere@illinois.edu)  
244-2139, Office Hours—by appointment

Teaching Assistant - TBD  
Office hours – by appointment

**Webpage:** Moodle

**Overview:** This course is an introduction to marine systems. We will discuss the physics and chemistry of oceans as well as the biology of the organisms that inhabit these systems. We will also discuss how humans use marine systems.

**Learning Goals:** By the end of this course, students should be able to:

- Explain the inter-relationships of physics, chemistry and biology in marine systems
- Summarize the diversity of marine organisms and their roles in marine systems
- Evaluate data related to current stressors on marine systems

**Diversity statement:** In this course, students from every background are valued and will be treated with respect. Contributions from international students, students with disabilities, non-traditional students, and students from underrepresented groups are important to course discourse.

**General Course Policies:** The course follows all policies and expectations outlined in the *Student Code* <http://admin.illinois.edu/policy/code/>.

**Accommodations:** Please notify Dr. Cáceres (the sooner the better) if you require special accommodations. University policy regarding special accommodations is listed in Article I-110 of the *Student Code*.

**Academic Integrity/Plagiarism:** Article I, Part 4 of the *Student Code* explains the University (and course) Policy on Academic Integrity. Section I-401 b states “Students have been given notice of this rule by virtue of its publication. Regardless of whether a student has actually read this rule, a student is charged with knowledge of it. Ignorance of a rule is never a defense.” If there is anything in the Student Code that you feel you do not fully understand, please contact one of your instructors.

**Structure and expectations (See also slides from lecture 1 and moodle):**

All students attend two lectures each week. The learning will be as active as possible. Outlines for each lecture will be posted on Moodle. The expectation is that you will annotate these postings with your own set of notes. *Not everything we talk about in lecture will be listed on the posted powerpoint presentation, so you are advised to take your own set of notes.*

Each lecture will also include several small-group or individual activities, which will be turned in for credit and will contain information relevant to the exams. For some lectures, you will also be given a reading assignment and handout to be completed prior to coming to class. These handouts and in class activities will count for a total of 100 points, and there will be an opportunity to drop your lowest in-class scores. Assignments will receive a 10% reduction per day for late submissions. Work submitted later than 3 days will not be considered for grading unless consent has been given by the instructor.

Lecture attendance is highly recommended and you will not be allowed to complete the in-class assignments (including turning in handouts) associated with unexcused absences. Excused absences are given only for observing a religious holiday that falls on the day of the lecture, a medical emergency or tragedy in your immediate family or serving as a volunteer emergency worker as defined in the Volunteer Worker Job Protection Act. Please let me know in advance if you will miss a class to observe a religious holiday. All other requests for an excused absence must be accompanied by documentation from the Student Assistance Center. If you miss an exam as the result of an excused absence, you will be allowed to complete a make-up exam. Depending on the length of your absence, Dr. Cáceres will determine the amount of time you have to complete the work. No credit will be given for exams or assignments missed due to unexcused absences.

Please respect the learning environment of your classmates. Please refrain from activities that are disruptive or distracting to other students (talking, arriving late/leaving early, websurfing, etc.). Be prepared to be an active participant in group activities.

**Grading:**

(500 points)

1 <sup>st</sup> In class exam	100 pts.
2 <sup>nd</sup> In class exam	100 pts.
3 <sup>rd</sup> In class exam	100 pts.
In class work and related pre-class assignments	100 pts.
Semester Project on Stressors	100 pts.

**Grading Scale**

**500 total points**

495-500	A+	385-399	C+
465-494	A	365-384	C
450-464	A-	350-364	C-
435-449	B+	335-349	D+
415-434	B	315-334	D
400-414	B-	300-314	D-

### Lecture Topics (order may change)

Date	Topic
August 27	Introduction - What is Marine Biology?
August 29	Structure of Marine Environments and ionic content of water
September 3	Light, heat and zones of the ocean
September 5	Oxygen and Carbon
September 10	Patterns and causes of ocean circulation
September 12	Movement (continued)
September 17	Climate Change and Oceans
September 19	Climate Change and Oceans (Guest presentation)
September 24	Marine Microbes (Content covered on Exam 2)
<b>September 26</b>	<b>Exam #1</b>
October 1	Op-ed Workshop (Guest presentation)
October 3	Marine Microbes
October 8	Plankton
October 10	Corals
October 15	Corals II – Image J lab
October 17	Other invertebrates I
October 22	Reproduction and Life Cycles
October 24	Chordates (Content Covered on Exam 3)
October 29	<b>Exam #2</b>
October 31	Chordates II
November 5	Conservation
November 7	Invasive Species
November 12	Disease in Marine Systems
November 14	Harmful Algal blooms
November 19	Harmful Algal blooms
November 21	Group work on posters
<b>November 26 &amp; 28</b>	<b>Thanksgiving Break</b>
December 3	<u>Poster Presentations</u>
December 5	Life in extreme environments

**December 10**  
December 11

**Exam #3**  
Last day to upload op-ed piece (11:55 pm)