MARS 8160: Marine Ecology

Instructors: Marc Frischer & Amanda Spivak
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Office Hours:

Frischer: By appointment or:

- If in Savannah at Skidaway, just drop by, if my door is open I am available (MCSRIC 104)
- If in Athens (and I am there) 230 Marine Science Building
- If I'm in between, try sending me a text at (912) 658-5745 and let me know what's up and how to reach you.

Spivak: Monday 11-12 AM or by appointment. Marine Sciences 163

Semester: Spring
Class Times: M/W 2:30 – 3:45
Classroom: Athens, Marine Sciences Building 208
Savannah, Ocean Sciences Instructional Center

Course Description

In this course we will study ecological interactions that occur among marine organisms and how those interactions are shaped by the biotic and abiotic environment. The oceans contain a rich diversity of habitats and ecosystems. This diversity of habitats is occupied by an incredible diversity of life that interact with each other and these habitats. Over the course of the semester we will discuss ecological theories and principles that describe interactions between species and their environments. Special focus will be placed on regional examples of complex communities including salt marshes, subtropical continental shelves and subtropical deep water hard bottom reefs, polar environments etc. During the course, our discussions will be guided by considering example organisms and systems in the context of fundamental ecological processes including energy and matter cycling, physical gradients associated with spatial and temporal processes, predation, competition, disease etc. We will also consider the role of humans and the interdependencies between human and marine systems.

Classes will consist of topical lectures accompanied by related readings from the primary literature and related class or individual project (s).

Course Objectives

Upon completion of this course, students should have a broad understanding of fundamental processes that lead to the emergence of complex marine communities in diverse marine environments. Students should have acquired critical thinking and synthesis skills that will

enable them to evaluate and understand marine ecosystems and the life in them as emergent systems structured by critical interactions.

Textbooks

There are no required textbooks for this course, all required information will be conveyed through lectures, discussions and readings. However, some recommended books that you may find useful are:

Dodson, S. (1999). *Readings in ecology*. New York: Oxford University Press.

Valiela, I. (2015). *Marine ecological processes* (Third ed.).

Dodson, S. (1998). *Ecology*. New York: Oxford University Press.

Kaiser, M. (2005). *Marine ecology: Processes, systems, and impacts*. Oxford ; New York: Oxford University Press.

Computers & Software

We will be using the cloud conferencing app *WebX Teams* to facilitate interaction between the Athens and Skidaway campus. The app is free and you will be invited to join the MARS 8160 group.

Readings

There will be regularly posted readings. When they are assigned, these should be read before the next class. After the on-line readings there will be a small quiz to measure comprehension and understanding and to seed class discussion of the reading: your grades on these quizzes will count towards your final grade.

Assignments (Homework) & Exams

There will be one exam, occasional small quizzes, and a final project that includes a class presentation and leading a class discussion of a reading related to the presentation topic.

Presentation and Leading Class Discussion:

Each student will be required to lead a class discussion including a short (10 – 15 min) presentation on a topic related to a fundamental ecological principle as it is manifested in a specific marine environment. Following the presentation, students will lead a discussion of a reading of their choice that is relevant to the presentation topic. The reading will be assigned to the class. In advance of the class period, the presenting student will prepare a short quiz to seed the discussion of the reading.

Students should propose presentation topics and reading assignments to the instructors and receive final approval of topics and readings no later than the start of class on Monday 2 March.

Note that you will not be able to pass this course if ALL of the assignments are not completed, even if you get 100% credit on all other graded materials.

Course Grading

Your final grade will be based on class participation, the mid-term exam, quizzes, and leading of a class discussion.

Class participation:	15%
Mid-term exam:	45%
Quizzes:	20%
Leading class discussion:	20%

A final letter grade will be posted for the course. The correspondence between percentages and letter grades are given below.

100 – 93.00	A	79.99-77.00	C+
92.99 – 90.00	A-	76.99-73.00	C
89.99-87.00	B+	72.99 – 70.00	C-
86.99-83.00	B	69.99-60.00	D
82.99-80.00	B-	<60.00	F

Note that you must receive a C or better for the course, and that the average over all your graduate level courses must be a B or better. Grades awarded on individual assignments, quizzes and participation will be curved relative to the performance of the class.

Special Accommodations

If you need special accommodations because of a disability, please make an appointment to see the instructor as soon as possible or before the end of the second full week of classes.

Absences from Class

Absences from class are sometimes unavoidable, especially in a discipline where research is conducted. For planned absences due to research obligations, please discuss with the instructors as soon as possible but at least 1 week in advance of the absence. Prolonged absences may result in you having to drop the class. For absences due to illness or other unforeseen events, please inform the instructors as soon as possible.

Important Dates

Classes Begin	Jan 7
Drop/Add	Jan 7 – 13
Holiday: MLK day – No Classes	Jan 20
Midterm	Feb 28
Last Day of Classes Prior to Spring Break	Mar 6
Spring Break – No Classes	Mar 9-13
Classes Resume	Mar 16
Withdrawal Deadline	Mar 20
Monday Class Schedule in Effect	Apr 28
Classes End	Apr 28
Reading Day	Apr 29
Final Exams	Apr 30, May 1-6
Commencement	May 8
Grades Due	May 11 (12 pm)

Academic Honesty

All students are directed to review and follow UGA's policies and procedures on academic dishonesty, https://honesty.uga.edu/Academic-Honesty-Policy/. All academic work must meet the standards explained in that document. It is the responsibility of each student to inform themselves of these standards and the consequences for not adhering to them. In particular, all students are expected to hand in work that is their own — discussion of all assignments and readings among students is permitted (and encouraged), but the work you hand in must be your own. Any student found cheating or plagiarizing will be disciplined according to the University's rules and policies.