OCB 3264: Coral Reef Biology
Spring 2017

Instructor

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When and where

- Lectures: Academic Center One 194, Tuesday and Thursday 5:00 - 6:15PM
- Office hours: Tuesday and Thursday 14:00-16:30, following each lecture, or by appointment (request by email)

Learning materials

- Recommended Texts:
    - Goldberg, W.M. The Biology of Reefs and Reef Organisms
    - Sheppard, C.R.C, Davy, S.K., and Pilling, G.M. The Biology of Coral Reefs
- Each lecture will be posted to Blackboard prior to class so it can be annotated
- Other learning materials (e.g. required papers to read) will be posted to Blackboard
- You will need an iclicker for this course, and it is recommended that you register it

Course description and learning outcome

Coral reefs are the most biodiverse marine ecosystem, and provide a range of important ecosystem services to humans including fishing, sand production, and coastal protection. Furthermore, they are relatively easy to explore on snorkel and SCUBA, including close to FIU. However, they are threatened by a range of factors, and need urgent conservation.

This course is designed as a detailed insight into Coral Reef Biology, and will address the organisms found on reefs, ecological processes, and reef threats and conservation. Since this is an upper division level course, core knowledge of natural sciences is expected and we will draw upon the primary literature published in scientific journals. This will allow us to examine cutting-edge questions in coral reef biology and conservation.
Successful completion of General Biology I and II is a prerequisite.

Specifically, this course should allow you to:

1. Understand the basic characteristics of tropical waters
2. Understand the major characteristics of the key animals and plants on reefs
3. Recognize key processes on shallow and deep reefs
4. Appreciate variability among reefs, including those of the USA
5. Consider the threats to coral reefs, and how they might be conserved
6. Understand how we conduct marine research, and how to read and interpret research papers

Teaching schedule (please be advised that the course syllabus schedule of events is subjected to change)

- Changes to this schedule and other announcements regarding the course will be to FIU email addresses only
- Deadline to drop a course with a DR grade: Monday March 20

Week	Date	Lecture number	Subject
1	10 Jan	1	Introduction and course assignments
	12 Jan	2	Corals
2	17 Jan	3	Other reef invertebrates
	19 Jan	4	Primary producers
3	24 Jan	5	Fish 1
	26 Jan	6	Fish 2
4	31 Jan	7	Reef zonation
	2 Feb	**Mid-term 1**	
5	7 Feb	8	Grazers and grazing
	9 Feb	9	Calcification and bioerosion
6	14 Feb	10	Reef resilience
	16 Feb	11	Reproduction of reef species
7	21 Feb	12	Nursery habitats
	23 Feb	13	Reef food webs
8	28 Feb	**Mid-term 2**	
	2 Mar	14	Reef formation and evolution
9	7 Mar	15	Biodiversity and biogeography
	9 Mar	16	Survey methods
10	14 Mar	Spring break	
	16 Mar	Spring break	
11	21 Mar	17	The reefs of the USA
	23 Mar	18	Deep reefs
12	28 Mar	19	Threats to reefs
	30 Mar	20	Reef conservation
13	4 Apr	**Mid-term 3**	
	6 Apr	21	**Student presentations**
14	11 Apr	22 **Poster submission**	**Student presentations**
	13 Apr	23	Marine reserve design practical (laptop required)
15	18 Apr	24	Practicing data interpretation
	20 Apr	Revision	Review of all course material
16	24 – 29 Apr	**Finals**	

Weekly tasks and objectives
Regular, on-time class attendance is expected. Please try to participate in class by asking and answering questions - we will also use iClickers in the class. Following each lecture, you should ensure that you understand all the taught material and seek help with material you don't understand (meet with the instructor, ask questions in class, read the text books). There is some required reading of journal articles (posted to Blackboard) associated with each topic that will be highlighted in class and discussed the following week. No cell phones are tolerated during class – please turn them off or turn them to "silent" before class begins.

Grading
The course will have three midterm exams. Your highest two grades from the midterms will count towards your final grade (20% each of final grade). Your lowest midterm will be dropped. These exams are non-cumulative and cover only material since the last exam. The final exam is cumulative and covers all information from the semester. It counts for 40% of your final grade. Missed exams will count as zero points. Participation in the lecture will account for 10% of your grade and will comprise of a series of iclicker questions (credit both for being present and answering correctly) in each class.

Towards the end of the course each student will give a short talk (<5 minutes) on a scientific paper of their choice. Each student will also prepare a scientific poster based on the same paper. Both the talk and the poster will be assessed, and the final 10% of the grade will be from your best mark (i.e. you will drop the mark for either the talk or the poster, depending on which is the worst). However, you must complete both a poster and a talk to score >5% for this component.

Make-up exams will generally only be granted in cases where there is a documented university-approved excuses. Examples of university-approved excuses include: medical emergencies, death of members of immediate family, and jury duty. Exam scores may be curved.

Grade scale
A 93-100; A- 90-92; B+ 87-89; B 83-86; B- 80-82; C+ 75-79; C 70-74; D 60-69; F < 60

Summary (students will be graded on their performance in these areas ONLY)
Highest Midterm 1 – 20%; Highest Midterm 2 – 20%; Lowest Midterm – 0%; Final – 40%;
Participation - 10%; Talk or poster – 10%

Professional and academic integrity
Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly demonstrate the quality of their learning. Therefore, all faculty members as well as students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their students or fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they

are found responsible for academic misconduct (e.g. cheating, plagiarism, academic dishonesty), they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the FIU Student Handbook under the "Academic Misconduct" section."

FIU is committed to eliminating sexual harassment. In accordance with the FIU Faculty Senate guidelines, this syllabus includes a warning that any misconduct will be reported. FIU's sexual harassment policy is available at: http://www.fiu.edu/~eop/EOPSexH.pdf