Bio 169L The Living Sea

Instructor: Dr. Sarah Gilman
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Course goals: This aim of this course will be to provide a broad overview of marine ecosystems and the major processes structuring ecological communities. We will cover a diversity of marine ecosystems such as the rocky intertidal, estuaries, coral reefs, deep-sea, and polar habitats. Within each ecosystem we will explore the processes and mechanisms that regulate the abundance and distribution of marine organisms. Additionally, we will cover the effects of human activity on marine ecosystems. By the end of the course you will be able to:

1) Understand both the general and the habitat-specific ecological processes that occur in marine environments.
2) Understand the relevance of marine ecology to current scientific, social, and economic arenas, both as a biologist and a citizen.
3) Critically read and understand a scientific paper
4) Apply the principles of hypothesis-testing to marine ecological questions

Lecture: MWF 10-10:50, Keck 039
Lab: M 1:15-5:15 **Keck 039**, some labs will be replaced with field trips.
Final Exam: Tues, 13 May, 9 am (for non-seniors)

TA: Sara Goetz, sgoetz@hmc.edu

Textbooks:

- Nybakken J.W. and M.D. Bertness. 2005. *Marine Biology: An ecological approach*. 6th edition. Benjamin Cummings
- Marine Life of Southern California, Second Edition, by D.J. Reish, Kendall/Hunt Publishing Company

Course Email: js_biol169l@Sakai.Claremont.Edu
any email sent to this address will be forwarded to the whole class
Course Web Site: sakai.claremont.edu
By Wednesday at noon, please login into Sakai and post a comment to the discussion topic "Intro lecture". This will show me that you know how to use Sakai.

Lectures: Attending lectures is strongly encouraged, as 80% of the exam material will be covered in lectures (remaining 20% will be based on labs, field trips, and readings). Please arrive on time and avoid disturbing other students by talking, or snoring during lecture. Cell phones must be turned off. As KS039 is a laboratory classroom, no food is permitted in the room.

Readings: The reading assignments are intended to provide background needed for lectures and class activities. Therefore I strongly recommend that you **complete reading assignments before coming to class**.

Paper Discussions: Periodically throughout the semester, 1-2 people will be responsible for presenting a journal article and running a class discussion regarding the content of that article. In

most cases, you will be allotted the entire class period for this discussion. Additional information on the paper discussion will be provided.

Labs: The lab portion of the class is designed to help you learn about marine organisms and how to conduct and analyze marine ecological experiments. We will not meet every week and some weeks will extend beyond the scheduled time period (see attached lab schedule). **There are at least three mandatory field trips**. These will be: an all-day pelagic sampling boat trip; a field trip to the rocky intertidal shore; and a field trip to Newport Bay. **Attendance at field trips is worth 4.5% of your grade**. Depending on logistics, the final labs will either be a fourth field trip or group research projects.

Four of the lab projects will require formal lab reports. These will generally be **due at the end of the week after the lab**. A rough draft will be required for the first lab report. Those labs not requiring formal lab reports will generally have a **worksheet or short essay due one week after the lab**.

Grading: Evaluation of course material will consist of two midterm exams, class participation, field trip attendance, lab reports, a paper presentation, and a cumulative final exam. Attendance in class is expected and exam questions will reflect material covered in class. Final grades will be scaled relative to class performance. *If you miss an exam, a make up exam will be given only if you have a legitimate excuse, verified by your Dean of Students.* Late assignments will be docked 10% for each class day late.

Evaluation	Points
Midterm exams (2 total)	240
Final exam	240
Paper Presentation	20
Class Participation	30
Lab reports (4 total)	360
Other lab work	65
Field trip attendance (3 total)	45
Total	**1000**

Grade change policy: Requests for grade changes must be made in writing (email does not count) within one week of receiving the grade.

You are expected to do your own work. Cheating, plagiarism, and collusion will not be tolerated! If you are suspected of cheating the appropriate administrative office on your home campus will be notified.

Syllabus modification: Dr. Gilman reserves the right to modify this syllabus (including course schedule) during the semester as considered necessary to improve the quality of this course. Any changes to the syllabus or schedule will be clearly announced. **You are responsible for being aware of any changes.**