Syllabus: Marine Biochemistry (SIO 181)

Instructors
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TA
Lauren Linsmayer  llinsmay@ucsd.edu

Office hours: By appointment

Time (Lectures): Tuesday & Thursday 11.00 am - 12.20 pm
Location (Lectures): Lecture Hall (Room 227), Eckart Building
Sumner Auditorium

Time (Seminars): Monday 4.00-5.50 pm; Wed 5.00-5.50 pm
Location (Seminars): Vaughn Hall 100

Final Exam: TBD Final Exams: June 10-16

Required textbooks:
None, instructors will upload reference material (TED)

Course Goals:
To provide an introduction of biochemical and physiological adaptations in diverse marine organisms and how these adaptations are important in their natural environment and in relation to anthropogenic activities.

Learning Objectives:
By the conclusion of the course, the students should be familiarized with biochemical and physiological adaptations used by marine organisms. In particular, they should have learned principles on essential physiological processes such as:
- Metabolism (aerobic and anaerobic),
- Acid/base regulation
- Nitrogen metabolism
- Osmoregulation (osmoconformers, osmoregulators)
- Thermoregulation
- Biochemistry and physiology of coral, Osedax worms, and hagfish
- Mechanisms to achieve and maintain buoyancy

The students should also become familiar with the most important biochemical and physiological adaptations that are characteristic of marine organisms, including general and species-specific mechanisms.

Course Website:
Course materials will be available through the course website
All students will need to be able to access this site. Be sure to check the course website frequently for announcements, updates and assignments.

**Grading:**
Grades will be based on a “Midterm Exam” on lectures 1-12 (40% of the final grade), a “Final Exam” focused on lectures 13-19 (40% of the final grade), and “Seminars” (20% of final grade).

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**Note: 80-minute lectures**

Instruction begins Monday April 3, ends Friday June 9.