

SIO 3: Life in the Oceans

Winter Quarter 2025

Course Instructor:

Dr. Octavio Aburto-Oropeza, Scripps Institution of Oceanography
Phone: 858-534-1043
Email: maburto@ucsd.edu
Office hours: by appointment (preferably set up via email)

Teaching Assistant(s):

Sonya Timko, Scripps Institution of Oceanography
Email: setimko@ucsd.edu
Office hours: by appointment

Jamee C. Adams, Scripps Institution of Oceanography
Email: jcadams@ucsd.edu
Office hours: by appointment

Aburto Lab Academic Assistant:

Alberto Rivera, Scripps Institution of Oceanography
Email: alr052@ucsd.edu
Office hours: by appointment

Course Structure: Three lectures per week on Monday, Wednesday and Friday at 2:00- 2:50pm

Location: Upper Campus, **Center Hall 212**

Discussion Section: M 12:00- 12:50 and 4:00- 4:50; W 4:00- 4:50; F 4:00- 4:50

Location: Upper Campus, Center Hall 217B

Course Description: This course will introduce you to a wide variety of organisms that live in the oceans, the habitats they occupy, and how species interact with each other and their environment. Included will be examinations of adaptations, behavior, ecology, and a discussion of local and global resource management and conservation issues. Lectures will be supported by discussion sections, in order to review course information and/or participate in activities such as watching movies.

Textbook: *Marine Biology* (12th edition), P. Castro & M.E. Huber, McGraw-Hill.

Additional course readings will be assigned in class and will be available as pdf's on Canvas

Grading:

Two midterm exams (multiple choice, matching and short answer format)

Participation/attendance = 5%

1st Midterm = 25%

2nd Midterm = 25%

Discussion Sessions = 25%

Final exam (multiple choice, matching and short answer) = 20%

Discussion Sections: are mandatory and are primarily for review of material and readings about news in marine conservation, and the clarification of lectures for exams. Also, there will be some movies that we will watch as a part of the topics reviewed during the course.

SIO 3 Lecture/Exam Schedule (Winter 2023)

<u>Date</u>	<u>Lecture Topic</u>	<u>Modality</u>
1) Jan 6	Introduction and History of Ocean Exploration	On-Campus
2) Jan 8	Fundamentals of Biology	On-Campus
3) Jan 10	Microbes	On-Campus
4) Jan 13	Seaweeds and Plants	On-Campus
5) Jan 15	Marine Invertebrates I	On-Campus
6) Jan 17	Movie	On-Campus
Jan 20	Martin Luther King, Jr. Holiday	
7) Jan 22	Marine Invertebrates II	On-Campus
8) Jan 24	Marine Fishes	On-Campus
9) Jan 27	Marine Birds & Reptiles	On-Campus
10) Jan 29	Marine Mammals I	On-Campus
11) Jan 31	Marine Mammals II	On-Campus
Feb 3	Midterm: Lectures 1-11	On-Campus
12) Feb 5	Physical Oceanography	On-Campus
13) Feb 7	Introduction to Marine Ecology	On-Campus
14) Feb 10	Intertidal Communities	On-Campus
15) Feb 12	Estuaries, Kelp Forests	On-Campus
16) Feb 14	Coral Reefs	On-Campus
Feb 17	Presidents' Day Holiday	
17) Feb 19	Polar Seas	On-Campus
18) Feb 21	Deep Ocean	On-Campus
19) Feb 24	Epipelagic	On-Campus
20) Feb 26	Movie	On-Campus
Feb 28	Midterm: Lectures 12-20	On-Campus

21) Mar 3	Resources from the Ocean	On-Campus
22) Mar 5	Impacts of Humans	On-Campus
23) Mar 7	Climate Change and Ocean Acidification	On-Campus
24) Mar 10	Photography and AI Ocean Art	On-Campus
25) Mar 12	What you can do? Solutions 1	On-Campus
26) Mar 14	What you can do? Solutions 1	On-Campus
Mar TBD	Final Exam (Lectures 22-26)	On-Campus