



Marine Biology Degree

Offering Undergraduate
Degree in Marine Biology
http://www.hawaii.edu/marine_biology

Thank you for your interest in the **Bachelor of Science in Marine Biology**. The newly developed Marine Biology degree provides the opportunity for students to learn about marine species, their interactions, and their environments. Students within the program may work with a wide range of organisms, including seabirds, marine mammals, sharks, fishes, turtles, invertebrates, algae, and micro-organisms. Extensive field experiences are integrated with traditional classroom and laboratory courses to form an interdisciplinary academic program that offers unique opportunities for hands on learning. State-of-the-art research facilities used by the program include the [Hawaii Institute of Marine Biology \(HIMB\)](#), [Bishop Museum](#), [Waikiki Aquarium](#), [Kewalo Marine Laboratory](#), and [Dolphin Quest](#).

For incoming freshman and transfer students who have not taken the basic sciences, the Biology Program recommends: Biology I & II: Biology 171/L* and Biology 172/L*; General Chemistry I & II: Chemistry 161/L and Chemistry 162/L; and Science of the Sea: Oceanography 201.

*Biology 171/L & 172/L require Biology Program approval; contact the Biology Program for more details

In addition to the basic biology courses, there is also a wide variety of upper-division science courses that can satisfy degree requirements. Each marine biology major, with the help of an academic advisor, can create a study plan that best fits their academic interests and career requirements while receiving a well-rounded training in Marine Biology.

One of the highlights within the Marine Biology degree is the opportunity for seniors to participate in [Biology 403](#). This intensive, 5-week course is conducted at the Hawaii Institute of Marine Biology during the summer where it provides an integrated program of intensive lectures, laboratory experiments, and field surveys. The program focuses on the biological and physical processes that shape the lives of marine organisms. Students will live on-site and have the opportunity to meet various researchers, professors, and graduate students.

What can you do with a Marine Biology degree? Many students go on to graduate school in science-related fields such as marine microbiology, mammal physiology, and ocean ecology. Some work directly for the state or federal government managing marine resources, while others may work for non-governmental organizations doing marine policy related work. Formal and informal education and outreach institutions also benefit from our graduates.

Got questions, want to know more, or want academic advising?

Contact us at:

University of Hawaii at Manoa, Biology Program
2450 Campus Road, Dean Hall Room 02
Honolulu, HI 96822 U.S.A.
Phone: (808) 956-8303 Fax: (808) 956-4745
Email: marine-biology@hawaii.edu
Website: http://www.hawaii.edu/marine_biology
Hours of Operation: Monday – Friday, 8 am – 4:30 pm



University of Hawai'i at Mānoa
Biology Program

Bachelor of Science Degree in Marine Biology

A. General Education Requirements

Foundations Requirements:

- Written Communications, 1 course
- Global & Multicultural Perspectives, 2 courses

Diversification Requirements:

- Arts and Humanities, 2 courses
- Social Sciences, 2 courses

B. Major Requirements (*"C" Grade minimum, not C-*)

Biology Core Courses:

- BIOL 171 & 171L Introduction to Biology I & Lab, 3/1 credits
- BIOL 172 & 172L Introduction to Biology II & Lab, 3/1 credits
- BIOL 265 & 265L Ecology & Evolution Biology & Lab, 3/1 credits
- BIOL 275 & 275L Cell & Molecular Biology & Lab, 3/1 credits
- BIOL 375 & 375L Concepts of Genetics & Lab, 3/1 credits

Additional Required Courses

- Science of the Sea (OCN 201) 3 credits
- Biology of Marine Organisms (BIOL 301 & 301L) 3/1 credits (new courses)
- Animal Ecology (ZOOL 439) 3 credits
- Algal Diversity & Evolution (BOT 480, lecture/lab) 4 credits
- Biology of Invertebrates (ZOOL 475/475L) 3/2 credits
- Biochemistry (BIOL 402 or BIOG 441) 4 credits
- Marine Microbiology (MICR 401 & 401L) 3/1 credits (new courses)

Field Problems in Marine Biology (BIOL 403) (4 credits)

- Directed research can be substituted with approval

Directed Research: minimum 2 credits

Capstone Course: Advanced Topics in Marine Biology (BIOL 404) 3 credits

Elective Courses – 6 credits from the courses below:

BIOL 398	Biology of Marine Mammals	ZOOL 320/320L	Vertebrate Zoology/Lab
BOT 351	Inside Tropical Ecosystems	ZOOL 340/340L	Parasitology/Lab
BOT 456	Plant-Animal Interactions	ZOOL 430/430L	Animal Physiology/Lab
BOT 470/470L	Principles of Plant Physiol/Lab	ZOOL 432	Comparative Physiology
BOT 482/482L	Adaptations of Plants to Marine Environment	ZOOL 439L	Animal Ecology Lab
MICR 485	Microbes and Their Environ	ZOOL 410	Corals and Coral Reefs
MICR 490/490L	Animal Virology/Lab	ZOOL 420	Developmental Biology
OCN 310/310L	Global Environ Change	ZOOL 465/465L	General Ichthyology
OCN 331	Living Resources of the Sea	ZOOL 466	Fishery Science
OCN 450	Aquaculture Production	ZOOL 467	Ecology of Fishes
ZOOL 306/306L	Ethology/Lab	ZOOL 470/470L	Limnology/Lab
		ZOOL 480	Animal Evolution

C. Related Requirements (“C” Grade minimum, not C-)

- 1 Year Calculus: *MATH 215 and 216*
- 1 Statistic course: *ECON 321*
- 1 Year General Chemistry: *CHEM 161/161L and 162/162L*
- 1 Year Organic Chemistry: *CHEM 272/272L and 273 (273L recommended)*
- 1 Year Physics: *151/151L and 152/152L*

D. Graduation Requirements (overall GPA \geq 2.5)

- 5 Writing Intensive courses
- Ethical Issues, 1 course
- Hawaiian Asian and Pacific Issues, 1 course
- Oral Communications, 1 course (e.g. BIOL 399)
- 2 years Hawaiian/Second language
- Upper-division credits, 60 credits minimum

For more information:

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