ZOOL 200 — Marine Biology

Fall 2026 • 3 Credits • CRN 83461

Course Site	Halawa Educational Center	**Meeting Days**	Monday & Wednesday
Meeting Time	11:30 a.m.–1:30 p.m.	**Instructor**	William Smith
Email	wsmith@hawaii.edu	**Office**	Hale Naʻauao 127
Phone	Office 808-236-9216 Cell 808-561-3692	**Office Hours**	Wednesday, 1:15–1:30 p.m. and by arrangement

This syllabus and course schedule may be adjusted when necessary. Changes will be announced in class and provided in hard copy to students and Halawa counselors.

About Windward Community College

Mission Statement

ʻO keia ka wā kūpono e hoʻonui ai ka ʻike me ka hoʻomaopopo i kō Hawaiʻi mau hoʻoilina waiwai. Aia nō hoʻi ma ke Kulanui Kaiāulu o ke Koʻolau nā papahana hou o nā ʻike ʻake akamai a me nā hana noʻeau. Me ke kuleana koʻikoʻi e hoʻohiki ke Kulanui e kākoʻo a e hoʻokumu i ala e hiki kē kōkua i ka hoʻonui ʻike a nā kānaka maoli. Na mākou nō e hoʻolako, kākoʻo a paipai i nā Koʻolau a kō Oʻahu aʻe me nā hana noʻeau ākea, ka hoʻonaʻauao ʻoihana a me ka hoʻonui ʻike ma ke kaiāulu—hōʻāʻano a e hoʻoulu i nā haumāna i ka poʻokela.

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawaiʻi and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Koʻolau region of Oʻahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

ʻĀina

Windward Community College is located in the ahupuaʻa of Kāneʻohe and Heʻeʻia in the moku of Koʻolaupoko on the island of Oʻahu. Both ahupuaʻa are directly connected to the moʻo ʻōlelo of Pāpa and Wākea, who are seen as the ancestors of the Hawaiian nation. The campus sits beneath the puʻu of Keahiakahoe, which is also connected to many moʻo ʻōlelo of this ʻāina. Because wind names and rain names are associated with specific ʻāina, the rain name of Kāneʻohe is known as the ʻĀpuakea and the rain name of Heʻeʻia is the Ulumano.

Instructor Information

About Your Instructor

Aloha! My name is William Smith, and I am a lecturer in Geography and Zoology at Windward Community College. I earned a B.A. in Zoology and an M.A. in Geography from the University of Hawaiʻi at Mānoa, where my graduate work focused on biogeography and remote sensing, particularly coral reef environments.

Before moving primarily into college teaching, I spent more than a decade conducting coral reef research at the Hawaiʻi Institute of Marine Biology. My work included underwater surveys, coral reef monitoring and assessment, habitat mapping, and research throughout Hawaiʻi and other Pacific islands. I enjoy bringing those field experiences into ZOOL 200, particularly through examples from Hawaiʻi's marine environments.

Contact and Response Time

Students may speak with me during class, during the last 15 minutes of the Wednesday class meeting, or through the Halawa educational staff. I generally respond to student questions by the following class meeting. A personal Zoom room is available if a student later transitions to a setting where remote course completion is appropriate: https://hawaii.zoom.us/j/3387093879.

Alternate Contact Information

- Academic Affairs Office — Alakaʻi 121; (808) 235-7422
- Halawa Educational Supervisor II — Marly Jane "MJ" M. Nakamura; (808) 485-1877
- Halawa Puʻuhonua Counselor — Mr. Chris Okumoto; (808) 462-4717

Contingency Plan

If there is an outage, weather situation, family emergency, facility closure, or other disruption on my end, I will do my best to communicate an update as soon as possible about my return to the course. Mahalo in advance for your understanding and I hope you will do the same.

Course Format & Structure

ZOOL 200 is a 16-week, face-to-face course. Classes meet at the Halawa Educational Center on Mondays and Wednesdays from 11:30 a.m. to 1:30 p.m. This is not a self-paced course; students should follow the weekly reading and lecture schedule in this syllabus.

Students do not have individual access to computers, the internet, Lamakū, or other online course resources while participating at Halawa. Instruction may include instructor-controlled PowerPoint presentations, short videos, and other resources displayed in the education center. Students will receive hard-copy versions of lecture PowerPoints, study materials, quizzes, and other course resources. If a student later transitions to a setting where remote course completion is appropriate, Lamakū, Zoom, or other approved resources may be used as directed by the instructor.

If a scheduled class meeting cannot be held because of facility movement, lockdown, closure, instructor absence, or another interruption, students should continue following the weekly course schedule. Complete the assigned textbook reading and review the corresponding printed PowerPoint handouts. When class meetings resume, the course will generally continue with the scheduled material rather than repeating an entire missed lecture. Students will have an opportunity to ask questions about material covered during the interruption.

Course Information

Catalog Description

ZOOL 200 provides an overview of: the biology, ecology and Hawaiian cultural relevance of marine organisms with specific emphasis on those found in the Hawaiian Islands; the physical and chemical properties of the marine environment and various marine habitats with specific emphasis on those found in the Hawaiian Islands; the various human impacts affecting marine environments, habitats and organisms with emphasis on impacts relevant to the marine environments of the Hawaiian Islands. May be repeated up to 6 credits.

Recommended Preparation: Registration in ZOOL 200L.

Designation: DB (Biological Science). This section is Sustainability Focused (SF).

Course Outcomes

1. Apply the process of science to understand how the field of marine science increases our knowledge and awareness of marine systems.
2. Identify the physical and chemical characteristics of the marine environment and explain how they influence life in the ocean, and on our planet.
3. Apply examples of important adaptations specific to marine life by connecting their ecological roles to their environments.
4. Identify and appreciate the diversity of marine organisms and habitats, especially in Hawaiʻi.
5. Describe a variety of resources (both intrinsic and extrinsic) that humans use from the ocean, how they extract those resources, and the impacts that direct and indirect human activity has on the health, function and resiliency of the ocean and its inhabitants, especially in Hawaiʻi.

Course Content Overview

Course Unit	Textbook Chapters	Major Emphasis

Course Unit	Textbook Chapters	Major Emphasis
Principles of Marine Science	1–4	Science, sea floor and Hawaiian geology, ocean chemistry/physics, biology foundations and classification
Organisms of the Sea	5–9	Microbes, seaweeds/plants, invertebrates, fishes, reptiles, birds, and marine mammals
Marine Ecology & Habitats	10, 11, 13, 14	Marine ecology, intertidal environments, continental shelf habitats, and coral reefs

Course Materials & Learning Resources

Required Textbook

Castro, P., and M. E. Huber. 2025. Marine Biology. Twelfth Edition. McGraw-Hill. Students will use the hard-copy textbook supplied for this course. Page numbers may vary from older lecture materials; assigned chapter numbers and chapter titles will be used instead of page numbers.

Other Course Resources

- Printed PowerPoint lecture handouts provided before the corresponding lecture whenever possible.
- Printed study questions and chapter quizzes that may include questions drawn from the same pools used to prepare examinations.
- Selected readings and instructor handouts distributed in class as needed.
- Instructor-controlled PowerPoint, video, and internet resources may be displayed during class; students are not expected to have personal technology access.

Course Activities & Grading Policy

Engagement: Jeopardy Review Exercises — 30 points

Three Jeopardy review exercises are worth 10 points each and are normally completed during class immediately before major exams. Students are expected to be present and participate. If a student cannot attend because of a facility restriction, movement, lockdown, illness, or another circumstance beyond the student's control, the instructor may provide an alternative makeup activity, such as a printed version of the Jeopardy review. Completion of the approved alternative earns the same points as the in-class exercise.

Chapter Quizzes — 50 points

Chapter quizzes are hard-copy study assignments completed between class meetings, normally in the student's room. Students may use the textbook, lecture handouts, and other course materials. Up to 14 quizzes may be offered; the 10 best quiz scores (5 points each) count toward the final grade. Because several low or missed quiz scores may be dropped, make-up quizzes are normally not administered. Questions from chapter quizzes may also appear on the corresponding examination.

Examinations — 150 points

Students will take two midterm examinations (50 points each) and one non-cumulative final examination (50 points). Exams are normally taken during the scheduled class period and are open-book; students may refer to the textbook, lecture notes, handouts, and other course materials while taking the exam.

Students who are unable to attend a scheduled examination because of illness, a facility restriction or lockdown, or another legitimate circumstance beyond the student's control will be provided an opportunity to complete the examination outside of class. The exam may be provided in hard copy for completion in the student's room and returned as directed by the instructor. A makeup examination may differ in format or specific questions but will cover the same course content. No retests will be given.

Course Activity	Points	Percent of 230
Jeopardy engagement exercises	30	13.0%
Chapter quizzes	50	21.7%
Midterm Exam 1	50	21.7%
Midterm Exam 2	50	21.7%
Final Exam	50	21.7%
Total	**230**	**100%**

Final Grade Scale

Grade	Course Percentage
A	90% or above
B	80–89.9%
C	65–79.9%
D	55–64.9%
F	Below 55%

Incomplete, Credit/No Credit, withdrawal, and other grade options follow current University of Hawai‘i and Windward Community College policies and deadlines.

Course Schedule

This schedule is the course backbone. Students should continue the assigned reading and printed lecture materials even when a scheduled class meeting cannot be held. Not all textbook chapters will be assigned or covered.

Week / Date	Reading & Topic	Class Activity	Due / Notes
1 • 8/24	Begin Ch. 1 — The Science of Marine Biology	Course introduction; syllabus; course overview	Nothing due
2 • 8/31	Ch. 1 — The Science of Marine Biology	Marine biology history; scientific method	Ch. 1 quiz
3 • 9/7 Labor Day Mon.	Ch. 2 — The Sea Floor	Sea-floor provinces; plate tectonics; Hawaiian geology	Ch. 2 quiz
4 • 9/14	Ch. 3 — Chemical & Physical Features of the World Ocean	Ocean chemistry and physics; optional review as time permits	Ch. 3 quiz
5 • 9/21	Ch. 4 — Fundamentals of Biology	Characteristics of life; origin of life; classification	Ch. 4 quiz

Week / Date	Reading & Topic	Class Activity	Due / Notes
6 • 9/28	Review Chapters 1–4	Jeopardy 1; Exam 1; exam review Wednesday	Jeopardy 1 + Exam 1
7 • 10/5	Ch. 5 — The Microbial World	Marine microbes	Ch. 5 quiz
8 • 10/12	Ch. 6 — Seaweeds & Plants	Multicellular primary producers	Ch. 6 quiz
9 • 10/19	Ch. 7 — Marine Animals Without a Backbone	Marine invertebrates	Ch. 7 quiz
10 • 10/26	Ch. 8 — Marine Fishes	Marine fishes	Ch. 8 quiz
11 • 11/2	Ch. 9 — Reptiles, Birds, & Mammals	Marine reptiles, birds, and mammals	Ch. 9 quiz; last day to withdraw with W
12 • 11/9	Review Chapters 5–9	Jeopardy 2; Exam 2; exam review Wednesday	Jeopardy 2 + Exam 2
13 • 11/16	Ch. 10 — Introduction to Marine Ecology	Marine ecology	Ch. 10 quiz
14 • 11/23	Ch. 11 — Between the Tides	Intertidal environments	Ch. 11 quiz
15 • 11/30	Ch. 13 — Life on the Continental Shelf	Continental shelf habitats	Ch. 13 quiz
16 • 12/7	Ch. 14 — Coral Reefs	Coral reef structure, ecology, and Hawai‘i examples	Ch. 14 quiz
Finals • 12/14 & 12/16	Review Chapters 10, 11, 13 & 14	Jeopardy 3; Final Exam; final review	Jeopardy 3 + Final Exam

Student Kuleana & How to Succeed

- Attend and participate whenever facility conditions permit. Bring the textbook, lecture handouts, quizzes, and writing supplies to class.
- Read the assigned chapter before the corresponding lecture. If class is canceled, continue with the assigned chapter and printed lecture handouts.
- Take careful lecture notes and use the printed PowerPoint handouts to fill gaps. Ask questions when class resumes if material from a missed meeting is unclear.
- Use the chapter quizzes as study guides. Many quiz questions are drawn from the same question pools used to prepare examinations.
- Draw and label diagrams, graphs, anatomical structures, cycles, and other visual concepts. Recreate important diagrams from memory as an exam-preparation strategy.
- Use available Halawa study-hall periods for regular review. ZOOL 200 contains substantial scientific vocabulary and will generally require study outside class.

Participation Verification

Campuses are required by federal regulations to verify the participation of students in their classes. In accordance with Executive Policy 7.209, all students in the University of Hawai'i system are required to establish participation to ensure that they are not dropped from their class(es). Students who fail to participate by the late registration period may be administratively dropped from the course through the Pu'uhonua program.

Academic Integrity & Artificial Intelligence

Work submitted by a student must be the student's own work. The work of others should be explicitly acknowledged through quotation, summary, or citation as appropriate. Academic dishonesty, cheating, and plagiarism are subject to Windward Community College and University of Hawai'i student-conduct procedures.

Artificial Intelligence (AI)

Students in this Pu'uhonua section do not have direct access to computers, the internet, or generative-AI tools as part of normal course participation. AI is not required for any course activity. If a student later transitions to a setting where technology becomes available, AI may not be used to answer quizzes or examinations or to replace the student's own work unless the instructor explicitly authorizes its use for a specific activity. Students remain responsible for the accuracy and originality of all submitted work.

College Policies & Support Services

Your instructor may also provide additional resources in hard copy.

Basic Needs

Basic needs include food and housing, childcare, mental health, financial resources, and transportation. Student basic needs security is critical for ensuring strong academic performance, persistence and graduation, and overall student well-being. If you or someone you know is experiencing basic needs insecurity, please see the UH System Basic Needs resources or speak with Pu'uhonua staff about available assistance.

Disabilities Accommodations Statement

Windward Community College's Disability Student Services Office (WCC-DSSO) is committed to providing equal access to qualified students with disabilities. If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to participate fully in this class, you are encouraged to contact the Disability Specialist Counselor, Roy Inouye, to discuss reasonable accommodations that will help you succeed in this class. The Disabilities Counselor can be reached at (808) 235-7448 or wccdsso@hawaii.edu; students in the Pu'uhonua program may also request assistance through their counselor.

Financial Aid

If you are receiving financial aid and are contemplating not completing the course, it is highly recommended that you contact the Financial Aid Office at (808) 934-2712 or wccfao@hawaii.edu before withdrawing to discuss the impact on financial-aid eligibility. Pu'uhonua students may work through their counselor when direct contact is not available.

Student Conduct

Windward Community College follows the University of Hawai'i Code of Student Conduct, which defines expected student conduct and identifies actions subject to University sanctions. Students are responsible for following University policies and applicable facility rules while participating in this course.

Title IX — Sex Discrimination and Gender-Based Violence

Windward Community College is committed to a learning environment free from sex discrimination and gender-based violence. As a member of the University faculty, I am required to report incidents of sex discrimination or gender-based violence to the campus Title IX Coordinator. Students may seek information or support through Windward Community College or through Pu'uhonua staff.

LGBTQ+

The University of Hawai'i system and Windward Community College are committed to building an inclusive community that supports and advocates for all students, staff, and faculty. We welcome all members of our campus community:

transgender, māhū, and people of all gender identities. All members of our campus community deserve a work and educational environment free from harassment or bullying based on sexual orientation, gender identity, or expression. Windward Community College Commissioner: Scott Sutherland, scottjks@hawaii.edu.

Mental Health Counseling

Mental Health and Wellness at Windward Community College provides counseling services and activities to support students' life goals as well as their academic goals. Puʻuhonua students who need assistance may work through their counselor or educational staff to identify available support.

TRiO Program

The Federal TRiO Programs are educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds, including low-income, first-generation college students and students with disabilities. Puʻuhonua students may ask their counselor about eligibility and access to appropriate Windward support services.

Title IX Contacts

- Desrae Kahale, UH System Confidential Advocate — (808) 235-7393 — advocate@hawaii.edu — Hale Kākoʻo 101
- Desrae Kahale, Mental Health Counselor & Confidential Resource — (808) 235-7393 — dkahale3@hawaii.edu — Hale Kākoʻo 101
- Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator — (808) 235-7468 — mozoa@hawaii.edu — Hale Kākoʻo 109
- Karen Cho, Deputy Title IX Coordinator — (808) 235-7404 — kcho@hawaii.edu — Hale ʻAlakaʻi 120

For more information regarding sex discrimination and gender-based violence, refer to the University's Title IX resources and University Policy EP 1.204. Students without direct internet access may request assistance through Puʻuhonua staff.

Windward Community College is an Equal Opportunity Institution.