



Chaminade
University
OF HONOLULU

Course Syllabus

[Chaminade University Honolulu](http://www.chaminade.edu)

3140 Waialae Avenue - Honolulu, HI 96816

www.chaminade.edu

Course Number: ENV-115-02-1

Course Title: Marine Environmental Science

College/School/Division Name: NSM

Term: Spring 22

Course Credits: 3

Class Meeting Days: M/W/F

Class Meeting Hours: 10:30 AM - 11:20 AM

Class Location: TBD

Instructor: Frederique Kandel, PhD.

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Phone: 808.739.8376

Office Location: Henry Hall 7

Office Hours: Monday 10am to 12:01pm and by appointment.

University Course Catalog Description

This course introduces students to the scientific causes and consequences of the current major marine environmental issues. Topics include: an introduction to the Marine environment, effects of global warming on ocean ecosystems, marine pollution, marine debris, oil spills, fisheries exploitation, fisheries by-catch, marine alien species, coastal development and coral reef degradation. The course focuses on making students aware of the material causes and consequences of each issue as well as the role of science in devising solutions to each issue

Course Overview

Because we are fortunate enough to reside on a spectacular Island, we all are keenly aware of the awe inspiring beauty and power of our marine environment. In this class and laboratory, you will gain a greater understanding of the main physical, chemical and biological aspects of the world oceans. We will then examine the current human generated threats to the oceans and our planet and explore possible solutions to these issues. These solutions involve science as well as policies, education. They also involve personal choices and actions. Although the task at hands might seem daunting, we all have a role to play in bringing about the needed changes to preserve our oceans and with them, our entire planet.

Marianist Values

This class represents one component of your education at Chaminade University of Honolulu. An education in the Marianist Tradition is marked by five principles and you should take every opportunity possible to reflect upon the role of these characteristics in your education and development:

1. Education for formation in faith
2. Provide an integral, quality education
3. Educate in family spirit
4. Educate for service, justice and peace
5. Educate for adaptation and change

Native Hawaiian Values

Education is an integral value in both Marianist and Native Hawaiian culture. Both recognize the transformative effect of a well-rounded, value-centered education on society, particularly in seeking justice for the marginalized, the forgotten, and the oppressed, always with an eye toward God (Ke Akua). This is reflected in the 'Olelo No'eau (Hawaiian proverbs) and Marianist core beliefs:

1. Educate for Formation in Faith (Mana) E ola au i ke akua ('Olelo No'eau 364) May I live by God
2. Provide an Integral, Quality Education (Na'auao) Lawe i ka ma'alea a kū'ono'ono ('Olelo No'eau 1957) Acquire skill and make it deep
3. Educate in Family Spirit ('Ohana) 'Ike aku, 'ike mai, kōkua aku kōkua mai; pela iho la ka nohana 'ohana ('Olelo No'eau 1200) Recognize others, be recognized, help others, be helped; such is a family relationship
4. Educate for Service, Justice and Peace (Aloha) Ka lama kū o ka no'eau ('Olelo No'eau 1430) Education is the standing torch of wisdom
5. Educate for Adaptation and Change (Aina) 'A'ohe pau ka 'ike i ka hālau ho'okahi ('Olelo No'eau 203) All knowledge is not taught in the same school

Env-115 learning outcomes

1	Explain how the scientific method is used to test hypotheses.
2	List the major marine zones and explain their characteristics
3	Demonstrate an understanding of water properties chemical and physical properties, ocean circulation, including the Coriolis effect, global wind patterns, and the great ocean conveyor belt.
4	Classify marine organisms according to current understanding of taxonomy. For each taxon name some typical marine organisms occurring in Hawaiian waters and describe their ecological roles.
5	Explain the relationship between human generated emission of carbon dioxide, climate change and ocean acidification.
6	Discuss the current threats to coral reefs and the issues brought about by overfishing
7	Propose alternatives to minimize human impacts on the marine environment.
8	Analyze data and figures from Marine related scientific articles.

Course Prerequisites: None

Required Learning Materials:

Text: ISBN10: 1260162540 | ISBN13: 9781260162547

Marine Biology 11th Edition By Peter Castro and Michael Huber.

You will also need an access to “Connect” a website you will use for homework after each chapter. The cheapest option is to obtain the access to connect with the e-book from Mc Graw Hill. (www.mheducation.com).

The access code to your connect course will be given in class and published on Canvas.

Supplemental material will be supplied as needed using canvas posts.

Course Website:

<https://chaminade.instructure.com/courses/17274>

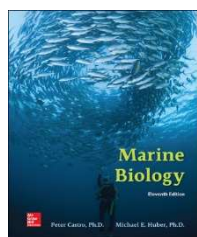
Technical Assistance for Canvas Users:

- Search for help on specific topics or get tips in [Canvas Students](#)
- [Live chat with Canvas Support for students](#)
- Canvas Support Hotline for students: +1-833-209-6111
- Watch this [video to get you started](#)
- [Online tutorials](#): click on “Students” role to access tutorials
- Contact the Chaminade IT Helpdesk for technical issues: helpdesk@chaminade.edu or call (808) 735-4855

Tutoring and Writing Services

Chaminade is proud to offer free, one-on-one tutoring and writing assistance to all students. Tutoring and writing help is available on campus at Kōkua ‘Ike: Center for Student Learning in a variety of subjects (including, but are not limited to: biology, chemistry, math, nursing, English, etc.) from trained Peer and Professional Tutors. Please check Kōkua ‘Ike’s website (<https://chaminade.edu/advising/kokua-ike/>) for the latest times, list of drop-in hours, and information on scheduling an appointment. Free online tutoring is also available via TutorMe. Tutor Me can be accessed 24/7 from your Canvas account. Simply click Account – Notifications – TutorMe. For more information, please contact Kōkua ‘Ike at tutoring@chaminade.edu or 808-739-8305.

Assessment



	<u>Points</u>	<u>% Of Grade</u>	<u>Due Date</u>
Homework	100	20	As assigned
Exam 1	100	20	2/23/2022
Exam 2	100	20	4/4/2022
Final exam	100	20	
Quizzes	50	10	As assigned
Attendance participation	50	10	
Total	500	100	

Grading Scale

Letter grades are given in all courses except those conducted on a credit/no credit basis. Grades are calculated from the student's daily work, class participation, quizzes, tests, term papers, reports and the final examination. They are interpreted as follows:

- A Outstanding scholarship and an unusual degree of intellectual initiative
- B Superior work done in a consistent and intellectual manner
- C Average grade indicating a competent grasp of subject matter
- D Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work
- F Failed to grasp the minimum subject matter; no credit given

Course Policies

Late Work Policy

Assignments must be submitted by the due date. In case of issues, contact the instructor as soon as possible.

Grades of "Incomplete"

As per catalog policy, under exceptional circumstances the instructor can grant an incomplete grade. The work will have to be completed within 90 days.

Instructor and Student Communication

Please use your Chaminade email or canvas to communicate with the instructor via email outside the class. Response time will be within four business days. In-person and Zoom conferences can be arranged.

Cell phones, tablets, and laptops

Out of consideration for your classmates, please set your cell phone to silent mode during class. Students are encouraged to bring laptops or tablets to class as the instructor will assign online activities and readings that will require the use of a laptop or tablet. Laptops and tablets should not be misused, such as checking distracting websites. Use your best judgment and respect your classmates and instructor.

Disability Access

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from Kōkua 'Ike: Center for Student Learning by the end of week three of the class, in order for instructors to plan accordingly. If a student would like to determine if they meet the criteria for accommodations, they should contact the Kōkua 'Ike Coordinator at (808) 739-8305 for further information (ada@chaminade.edu).

Title IX Compliance

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes

respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

Attendance Policy

The following attendance policy is from the 2019-2020 Academic Catalog (p. 54-55). Faculty members should also check with their divisions for division-specific guidelines.

Students are expected to attend regularly all courses for which they are registered. Student should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension, or by leaving a message with the instructor's division office. It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially withdrawing may receive a failing grade.

Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being withdrawn from the course by the instructor, although the instructor is not required to withdraw students in that scenario. Repeated absences put students at risk of failing grades.

Students with disabilities who have obtained accommodations from the Chaminade University of Honolulu Tutor Coordinator may be considered for an exception when the accommodation does not materially alter the attainment of the learning outcomes.

Federal regulations require continued attendance for continuing payment of financial aid. When illness or personal reasons necessitate continued absence, the student should communicate first with the instructor to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn by the instructor at the instructor's discretion.

Academic Conduct Policy

From the 2019-2020 Undergraduate Academic Catalog (p. 39):

Any community must have a set of rules and standards of conduct by which it operates. At Chaminade, these standards are outlined so as to reflect both the Catholic, Marianist values of the institution and to honor and respect students as responsible adults. All alleged violations of the community standards are handled through an established student conduct process, outlined in the Student Handbook, and operated within the guidelines set to honor both students' rights and campus values.

Students should conduct themselves in a manner that reflects the ideals of the University. This includes knowing and respecting the intent of rules, regulations, and/or policies presented in the Student Handbook, and realizing that students are subject to the University's jurisdiction from the time of their admission until their enrollment has been formally terminated. Please refer to the Student Handbook for more details. A copy of the Student Handbook is available on the Chaminade website.

For further information, please refer to the Student Handbook: <https://chaminade.edu/wp-content/uploads/2019/08/NEW-STUDENT-HANDBOOK-19-20-Final-8.20.19.pdf>

Credit Hour Policy

The unit of semester credit is defined as university-level credit that is awarded for the completion of coursework. One credit hour reflects the amount of work represented in the intended learning outcomes and verified by evidence of student achievement for those learning outcomes. Each credit hour earned at Chaminade University should result in 45 hours of engagement. This equates to one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester, 10 week term, or equivalent amount of work over a different amount of time. Direct instructor engagement and out-of-class work result in total student engagement time of 45 hours for one credit.

The minimum 45 hours of engagement per credit hour can be satisfied in fully online, internship, or other specialized courses through several means, including (a) regular online instruction or interaction with the faculty member and fellow students and (b) academic engagement through extensive reading, research, online discussion, online quizzes or exams; instruction, collaborative group work, internships, laboratory work, practica, studio work, and preparation of papers, presentations, or other forms of assessment. This policy is in accordance with federal regulations and regional accrediting agencies.

Schedule (tentative).

Week day	Date		Chapter
Monday	1/10/2022	Introductions	
Wednesday	1/12/2022	Science of Marine Biology	1
Friday	1/14/2022	Science of Marine Biology	1
Monday	1/17/2022	Fr. Chaminade/Dr. Martin Luther King Jr.	
Wednesday	1/19/2022	The Sea Floor	2
Friday	1/21/2022	The Sea Floor	2
Monday	1/24/2022	Chemical and Physical Features of the World Oceans	3
Wednesday	1/26/2022	Chemical and Physical Features of the World Oceans	3
Friday	1/28/2022	Chemical and Physical Features of the World Oceans	3
Monday	1/31/2022	Fundamental of Biology	4
Wednesday	2/2/2022	Fundamental of Biology	4
Friday	2/4/2022	The Microbial World	5
Monday	2/7/2022	The Microbial World	5
Wednesday	2/9/2022	Multicellular Primary producers	6
Friday	2/11/2022	Multicellular Primary producers	6
Monday	2/14/2022	Marine Invertebrates	7
Wednesday	2/16/2022	Marine Invertebrates	7
Friday	2/18/2022	Marine Invertebrates	7
Monday	2/21/2022	President's Day holiday	
Wednesday	2/23/2022	EXAM 1	
Friday	2/25/2022	Marine Fishes	8
Monday	2/28/2022	Marine Fishes	8
Wednesday	3/2/2022	Marine Fishes	8

Friday	3/4/2022	Marine reptiles birds and Mammals	9
Monday	3/7/2022	Marine reptiles birds and Mammals	9
Wednesday	3/9/2022	Marine reptiles birds and Mammals	9
Friday	3/11/2022	Introduction to Marine Ecology	10
Monday	3/14/2022	Introduction to Marine Ecology	10
Wednesday	3/16/2022	Introduction to Marine Ecology	10
Friday	3/18/2022	Coral Reef	14
Monday	3/21/2022	Spring Recess	
Wednesday	3/23/2022	Spring Recess	
Friday	3/25/2022	Spring Recess	
Monday	3/28/2022	Coral Reef	14
Wednesday	3/30/2022	Coral Reef	14
Friday	4/1/2022	Coral Reef	14
Monday	4/4/2022	EXAM 2	
Wednesday	4/6/2022	Our Changing Planet	Special report
Friday	4/8/2022	Our Changing Planet	Special report
Monday	4/11/2022	Our Changing Planet	Special report
Wednesday	4/13/2022	Our Changing Planet	Special report
Friday	4/15/2022	Good Friday	
Monday	4/18/2022	The Impact of Humans on the Marine Environment	18
Wednesday	4/20/2022	The Impact of Humans on the Marine Environment	18
Friday	4/22/2022	The Impact of Humans on the Marine Environment	18
Monday	4/25/2022	The Impact of Humans on the Marine Environment	18
Wednesday	4/27/2022	The Impact of Humans on the Marine Environment	18
Friday	4/29/2022	The Impact of Humans on the Marine Environment	18

Final exam tentative date: May 3rd 11am to 1pm.

The instructor may modify elements of this syllabus according to the operational needs of the class.