



Course Title: **Advanced Marine Environmental Science**
Course Number: **ENV415**
Term: **Spring 2024**
Course Credits: **3**
Class Meeting Times: **Tues & Thur 1:00-2:20**
Class Location: **X**



Instructor Name: **Dr. Lupita Ruiz-Jones**
You can call me Dr. Lupita or Professor
Lupita

Email: **guadalupe.ruiz-jones@chaminade.edu**

Office Location: **Wesselkamper 104**

Cell Phone (welcome to text, lmk who you are): **505.603.1985**

Office Hours: **Tues 12:00-1:00 / Wed 12:30-3:00 / Thur 11:30-1:00** in-person or zoom
(zoom link in Canvas - text me to lmk you want to zoom)

Course description from University catalog

This course engages students in thinking critically about ocean environmental challenges, specifically the ecological and biological consequences of climate change in the ocean, coral reef degradation, marine invasive species, and overfishing. Students will practice reading primary scientific articles and explore online databases. A running theme in the class will be marine restoration efforts and brainstorming solutions to identified challenges. Co-requisite: ENV 415L

Course overview

We will start the course by learning about the magnificence of our global Ocean, from its ancient history to its biological diversity (both course texts are required for this). Throughout the course we will draw connections between ocean health and what societies do on land and why that matters. We will dive deep into a few areas: coral reef health, Hawaiian fishpond (loko i'a) restoration (this will connect to the field portion of the lab), and marine biodiversity. In addition to diving deep into these topics, we will

spend some time learning about field research and scientific instruments through our course reading.

My teaching philosophy is that we will have a more engaging, and fun time, together if you come prepared. That means get the books (either buy your own copies, use the copies in the library, or borrow the student loaners from me), read the assigned sections prior to class, and practice critical thinking, which requires energy and is active. You will not enjoy your experience if you just show up without a clue of the day's topic and sit there expecting to be entertained without making any contribution.

Types of class activities and projects:

- In class discussions on assigned reading ~ requires getting the books and coming prepared
- In class examination of data
- Mid-terms on assigned reading and lecture material
- Marine Biodiversity Team Phyla Project
 - Presentation focused on a specific marine phyla
 - Will involve meeting with your teammate during class and outside of class
- Ocean Science Literature Review Project
 - Investigation of a specific ocean science (area of research or development of instruments for ocean exploration) topic you are interested in and curious about
 - Leading up to the final submission of your literature review you will submit 2 versions of your annotated bibliography and an outline

Service learning requirement

Through participation in organized service learning activities you will discover the many disciplines and techniques involved in ameliorating environmental challenges; and see how we put our skills and our Marianist and Pacific Island values into action for the good of the community.

A place to look for community service opportunities:
<http://www.conservationconnections.org/>

Alignment of Natural Sciences Courses with Marianist and Hawaiian values

The Natural Sciences Division provides integrative course content taught by experienced, dedicated, and well-educated instructors. *We educate in the family spirit* – every classroom is an *Ohana* (family) and you can expect to be respected yet challenged in an environment that is supportive and inclusive by instructors who take the time to

personally get to know and care for you. *We educate for service, justice and peace*, because many of the most pressing global issues (climate change, health inequity, poverty, justice) are those which science and technology investigate, establish ethical parameters for, and offer solutions to. *We educate for adaptation and change*. In science and technology, the only constant is change. Data, techniques, technologies, questions, interpretations, and ethical landscapes are constantly evolving, and we teach students to thrive on this dynamic uncertainty.

The study of science and technology is formative: exploring human creativity and potential in the development of technologies and scientific solutions; engaging in the stewardship of the natural world; and, promoting social justice. We provide opportunities to engage with the problems that face Hawai'i and the Pacific region through the Natural Sciences curriculum, in particular, those centered around severe challenges in health, poverty, environmental resilience, and erosion of traditional culture. The Marianist Educational Values relate to Native Hawaiian ideas of *mana* (spiritual energy of power and strength), *na'auao* (wisdom, enlightenment), *ohana*, *aloha* (love, affection, generosity, speaking from the heart, patience, and listening) and *aina* (love for the land and its people). We intend for our Natural Sciences programs to be culturally-sustaining, rooted in our Hawaiian place, and centered on core values of *Maiiau*, be neat, prepared, careful in all we do; *Makawalu*, demonstrate foresight and planning; *`Ai*, sustain mind and body; *Pa`a Na`au*, learn deeply.

Environmental Science Program Learning Goals

This course is part of the Environmental Science program. These are the Program Learning Outcomes for the program.

Upon completion of the undergraduate B.S. program in Environmental Science, students will be able to:

1. Authenticate their commitment to service, justice and peace through experiential project-based activities that enhance the condition of the integral ecology, care for creation and value all voices.
2. Apply scientific reasoning and methodology to environmental problems.
3. Identify the major physical, chemical and biological components, interactions and cycles of earth systems and ecosystems.
4. Propose, design and participate in scientific research projects that document, describe and/or help solve environmental problems and foster sustainability.
5. Pursue throughout their education new scientific knowledge and techniques that prepare them for the adaptation and change essential to environmental problem solving.

Course Learning Outcomes and their evaluation

By the end of the course, you will be able to:

1. Demonstrate ability to describe the major characteristics of the ocean and the types of biological diversity present
 - a. Satisfies part of Program Learning Outcome 3.
 - b. Evaluated via in-class/online discussions and mid-terms.
 - c. Requires reading 2 course texts: Ocean by Sylvia Earle and Extreme Life of the Sea by Palumbi & Palumbi
2. Assess the diversity of marine phyla and consider human impacts; and as a team communicate what you have learned clearly and effectively, through a visual presentation.
 - a. Satisfies part of Program Learning Outcome 3.
 - b. Evaluated via the Marine Biodiversity Team Phyla Project.
3. Effectively read scientific literature with a critical and analytical mindset and evaluate how science is presented in secondary sources.
 - a. Evaluated via in-class/online discussions.
4. Investigate in depth a specific ocean science topic and present your analysis in a literature review.
 - a. Satisfies part of Program Learning Outcomes 4 and 5.
 - b. Evaluated via the Final Ocean Science Literature Review Project

See Canvas Modules for the tentative schedule

Grading breakdown

* The grade listed in Canvas is NOT accurate because it does not include Participation.

If you are ever curious about your grade ASK ME.

8% = Attendance (roll call in Canvas)

7% = Engaged participation with peers, me, and guests (requires arriving to class prepared)

- To earn an A involves:
 - Regularly asking questions and responding to questions.
 - Being prepared to share your thoughts on the material assigned for class discussion.
- To earn a C involves:
 - Being present.
 - Demonstration of lack of preparedness for discussions.

15% = Canvas discussion posts

- How I will assess your reading comprehension.

- The discussion posts are a great way to prepare to engage in class discussions. These are generally not accepted late because they are meant to prepare you for class discussion.

- Reflections on class presentations and guest visits.

20% = Midterms

- Based on the assigned reading and lecture material.
- There will be multiple throughout the semester.

15% = Marine Biodiversity Team Phyla Project

- Breakdown:
 - 5% = Teams submit outline for feedback on logical flow; including list of references.
 - 10% = Team presentation graded both for quality of presentation and demonstration of critical thinking of content.

30% = Final Project: Ocean Literature Review

- Breakdown:
 - 5% = Version 1 Annotated Bibliography
 - 5% = Version 2 Annotated Bibliography
 - 7% = Outline
 - 13% = Literature Review

5% = Service Learning

- Participation in service learning events (will explain in class)

A = >90%: Outstanding scholarship and an unusual degree of intellectual initiative

B = 80-89.9%: Superior work done in a consistent and intellectual manner

C = 70-79.9%: Average grade indicating a competent grasp of subject matter

D = 60-69.9%: Inferior work of the lowest passing grade

F = <59.9%: Failed to grasp the minimum subject matter; no credit given

Late work policy

This policy applies to components of the 2 major projects: Marine Biodiversity Team Phyla Project and Ocean Literature Review Project. If something happens and you know you need an extension on an assignment, contact me. If we do not make a prior arrangement, 10% of the assignment points will be deducted for each day after the assignment due date. Generally canvas discussion posts are not accepted late.

Attendance and your grade

As an enrolled student in the course, I expect that you will attend every class unless you are sick. **If you have more than two unexcused absences your grade will be negatively impacted.** An important aspect of learning is active engagement. There is no substitute

for being in class when it comes to understanding and thinking critically about the material. Unexcused absences occur when playing hooky to go surfing, to sleep, to cram for an exam in another class, etc.

Extra credit opportunities

Throughout the course I will notify you of opportunities to engage with ideas and scholars outside of Chaminade. Most of these opportunities will be webinars. You are also welcome to attend any other webinar you find on your own that is related to course material.

Other extra credit opportunities are to participate in community service events with community environmental organizations. In class check in with me about the opportunity and the time commitment.

A place to look for community service opportunities:
<http://www.conservationconnections.org/>

To receive credit you will need to submit a reflection on Canvas for each webinar you participate in. There are specific criteria for your reflection on Canvas in the Extra Credit Discussion Assignment. **Each extra credit submission will be applied to your participation grade or to make up for a missing Canvas post. Max accepted will be 5 extra credit opportunities.**

Workload Expectations ~ Credit Hour Policy

- ENV415 is a 3 credit class requiring a MINIMUM of 135 clock hours of student engagement, per the official CUH Credit Hour Policy.
- We will meet twice a week: 2h 40min each week = ~40h for 15 weeks
- You will have reading and short writing assignments that are expected to take you ~2.5h per week (37.5h).
- You will have 3 mid-terms that will take you ~8h to study for = 24h.
- Preparing for your Marine Biodiversity Team Phyla Project is expected to take you ~10h.
- For your Final Ocean Literature Review Project you will spend time researching, outlining, giving feedback, and writing. This is expected to take you ~27h.
- It is expected that completing the class service learning project will take you ~8h.

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 a minimum of 45 hours of engagement, regardless of varying credits, duration, modality, or degree level. 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. Terms that have alternative lengths, such as 10 week terms, should have an equivalent amount of faculty instruction and out-of-class student work to meet each credit hour. Direct instructor engagement and out-of-class work result in total student engagement time of 45 hours for one credit. The number of engagement hours may be higher, as needed to meet specific learning outcomes.

Specific Credit Situations

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.

Course website

We will use Canvas and google drive.

Required course texts ~ both are available in Bookstore and online

Earle, Sylvia. **Ocean: A Global Odyssey**. National Geographic. 2021. [ISBN-10: **1426221924**] [ISBN-13: **978-1426221927**]

Palumbi, Stephen & Palumbi, Anthony. **The Extreme Life of the Sea**. Princeton University Press. 2014. [ISBN-10: **9780691169811**] [ISBN-13: **978-0691169811**]

Classroom atmosphere

Learning through discussion

In class and online discussions provide an excellent opportunity to learn from classmates; to formulate and rethink your own understanding of the material; to practice thinking on your feet; and to critically evaluate evidence.

Over the semester, you will develop your skills in:

- ❖ Engaging substantively with different types of sources in critical and productive ways
- ❖ Posing thought provoking questions and collaborating with peers
- ❖ Effectively communicating your ideas, both orally and in writing

Expectations of students in class

You have the responsibility to commit yourself to your academic work in ways that will increase your learning. In this course, following the guidelines below will give you the best chance of growing as a critical thinking learner:

Arrive to every class on time, which means settled in your seat by the start time.

Approach the work of the course with the habits of mind critical for success at the university level: intellectual curiosity, critical engagement, and creativity.

Prepare by doing all the required reading and assignments before class. Feel free to bring printed copies of articles or notes you took while reading to guide you during discussions.

Listen actively and with respect to your peers. We listen to each other with dignity by thoughtfully grappling with the ideas of others and using non-verbal cues to show we are paying attention to them. Active listening is essential to engaged participation.

Speak up and challenge yourself to share your thoughts and ideas with your classmates in skillful and respectful ways. Being critical of your peers is essential for proper academic discourse, but we strive to do so respectfully. Since you are thinking on your feet, you are not expected to speak with perfect clarity. Class discussion is a cooperative enterprise, not a competition. A quality contribution is one that helps stimulate our learning. A thoughtful response to another student's comment leads to a much richer learning experience than a long and well-researched but disconnected comment.

Inquire by asking questions—this is a key aspect of learning. Ask yourself questions as you engage with the course material. Engage with your peers by asking questions. Often there is not a single “right” answer.

Expectations you can have of me

I will continually strive to be an engaging, thoughtful, and critical teacher. One of my primary goals is to create a learning environment where everyone feels included. You

can expect me to make space for you to share your thoughts and questions. You can also expect me to listen to your feedback on how the class is going -- please share your observations and ideas with me.

Technical Assistance for Canvas

- ❖ 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 Smarthinking. Smarthinking can be accessed 24/7 from your Canvas account. Simply click Account – Notifications – Smarthinking. For more information, please contact Kōkua ‘Ike at tutoring@chaminade.edu or 808-739-8305.

Course Policies

Communication with me

I’m always happy to address your questions. I generally answer emails within 24 hours on weekdays and by the following weekday if sent on a weekend or holiday. Please do not wait until the last minute to ask questions. I expect you to communicate with me about any issues related to the course. Clear and timely communication can anticipate many standard problems that arise during a course. I am also super happy to just chat with you about topics you find interesting or you are curious about.

Grades of "Incomplete"

You may negotiate an incomplete grade with me when there are specific justifying circumstances. When submitting a grade the “I” will be accompanied by the alternative

grade that will automatically be assigned after 90 days. These include IB, IC, ID, and IF. If only an “I” is submitted the default grade is F. The completion of the work, evaluation, and reporting of the final grade is due within 90 days after the end of the semester or term; this may not be extended.

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 I will at times assign online activities and readings that will require the use of a laptop or tablet. It is well known that these devices can be extremely distracting to your learning as well as the learning experience of your peers. When you are in class I expect that you are focused on the material and not multitasking by checking email, social media, or unrelated material on your device.

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 the Counseling Center 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

For the University wide attendance policies please the 2020-2021 Academic Catalog.

You are expected to regularly attend all courses for which you are registered. You should notify me when illness or other extenuating circumstances prevent you from attending class and make arrangements to complete missed assignments. Notification may be done by emailing me. It is my 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, although I am 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 ADA 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, you should communicate first with me to review the options. Anyone who stops attending a course without official withdrawal may receive a failing grade or be withdrawn at my discretion.

Academic Conduct Policy

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.

This syllabus and course schedule are living documents: they are free to change. I try to adhere as closely as possible, but there will be times in which we will take longer on a particular topic or add or delete a topic to enhance the course. I like to be able to react to you as the course proceeds and go with the flow a bit in order to make the course experience sort of custom fit to you!

You are responsible for all of the information in this document: not reading it does not make you exempt from knowing what's in it!

Use this syllabus to keep you organized and aware of important dates and how your grade is determined.