

## **Marine Biology: BZ415 Spring 2024**

**Instructor: Dr. Shane Kanatous**

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**Office Hours:** 9:30-10:30 Tuesday, Thursday and by appointment.

**Teaching Assistant:** Alyson Pillard: [alyson1@colostate.edu](mailto:alyson1@colostate.edu)

Office hour: Mondays 2-3pm in Yates 216

**Course Objective:** This upper level course is a mixture of formal lectures, written assignments, discussion groups and student presentations examining the integration of marine organisms and their environment. The overall goal of the course is to provide a clear understanding of the importance of the marine environment to life on earth and the human influence on the modern ocean.

### **Specific course goals**

1. Contrast the properties of the marine and terrestrial environments
2. Interpret an organism's form and function in relation to the physical properties of the marine environment
3. Organize the diversity of marine life into their ecological roles
4. Describe and discuss food webs from primary producers to apex predators
5. Critically and effectively debate and discuss the influence of human populations on the marine environment
6. Recommend new avenues for the preservation and management of marine resources

**Required Text:** Marine Biology, 11th edition, 2019 by Castro and Huber

**Meeting times:** 2-3:15 on Tuesday and Thursday, BSB107

**Recitation will be on Thursdays 3:20-4:10**

**Grading:** Your final grade will be based on your performance on 2 lecture exams, written assignments, and a poster presentation describing a research project associated with human influences on the marine environment.

Four 100 Point Exams - 400pts

One Oral Research Presentation - 100pts

Weekly Assignments - 50pts

Class participation - 50 pts

Total points - 600pts

**Exams:** There are four examinations that will be made up of short answers and multiple choice questions. Exact due dates will be discussed in class and posted on Canvas with in the first 2 weeks of class. Exams must be completed on the scheduled date. Make-up exams will only be given to students with a University-approved absence, which provide documented evidence. Make-up exams will be given at a time of the instructors choosing. If you miss a lecture exam, or are late for any reason other than any unapproved reason, you will receive a score of zero on that exam. If you belong to any University sponsored group, we must be informed of known conflicts with exams with a letter signed by an appropriate authority by the beginning of the second week of classes.

Cutoffs for A, B, C, and D grades will be 90, 80, 70, and 60% of the class point total, respectively. We are happy to discuss exam questions with you at any time. However, for scoring purposes, no exam scores will be changed after 7 days following the posting of exam scores and keys. All requests for a re-grade must be submitted via a *handwritten* request to the instructors before this 7 day deadline. We adhere to the Academic Integrity Policy of the Colorado State University General Catalog {Page 7} and the Student Conduct Code.

**Lecture and Readings:** Reading assignments should be completed prior to coming to lecture and will be the topics of some exam questions. Some supplemental reading will be provided on Canvas to provide interesting aspects and real life applications of marine biology.

We stress that this course is about individual effort. Please do not use or participate in group chats or online "study sessions" outside of class. Students relying on these things generally underperform. We will highlight when a given assessment would benefit from peer review.

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**Marine Biology Lecture and Recitation Outline – This schedule is subject to change**

Week	Lectures	Recitation
1	The Life Aquatic & the Anthropocene	Multiple Factors
2	Physics and Chemistry of the Ocean	Development of Research Questions & Hy

3	Viruses and Bacteria	Temperature Dependence of Viral Infection
4	Deep Ocean	Open Q&A
5	Phytoplankton and Primary Production in the Pelagic	HABs
6	Zooplankton and Secondary Production in the Pelagic	Plastics & Zooplankton
7	Fish	Fish & the Anthropocene
8	Reptiles	Anatomy of a Research Presentation & Co Critiques
9	Spring Break	Nada
10	Mammals	Bottom up - Top down changes in the env
11	Marine Vertebrate Metabolism / Energy Flux	Trophic Interactions
12	Intertidal/Subtidal Ecology	Marine Heat Waves
13	Guest lectures	Pollution
14	Coral Reefs	Coral Diseases
15	Fisheries	Presentation Review
16	Presentations	Presentations

*The following information will be updated in real time to reflect current university policy.*

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**CANVAS INFORMATION & TECHNICAL  
SUPPORT**

Canvas is where course content, grades, and communication will reside for this course.

- [Login for CanvasLinks to an external site.](#)
- [Canvas SupportLinks to an external site.](#)

For passwords or any other computer-related technical support, contact the [Central IT Technical Support Help DeskLinks to an external site.](#) by calling (970) 491-7276 or emailing [help@colostate.edu](mailto:help@colostate.edu).

The [Technical Support and RequirementsLinks to an external site.](#) page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas, review the [CSU Passport to Canvas](#) course.

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## ACADEMIC INTEGRITY & CSU HONOR PLEDGE

This course will adhere to the CSU [Academic Integrity/MisconductLinks to an external site.](#) policy as found in the [General CatalogLinks to an external site.](#) and the [Student Conduct Code.Links to an external site.](#)

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

Further information about Academic Integrity is available at CSU's [Academic Integrity - Student Resources.Links to an external site.](#)

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## UNIVERSAL DESIGN FOR LEARNING/ACCOMMODATION OF NEEDS

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from the [Student Disability CenterLinks to an external site.](#) (SDC) may be required before any accommodation is provided.

The SDC has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever

there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

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## THIRD-PARTY TOOLS/PRIVACY

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Zoom and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used, and shared.

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## UNDOCUMENTED STUDENT SUPPORT

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit [Student Support Services for Undocumented, DACA & ASSETLinks to an external site.](#) for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

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## TITLE IX/INTERPERSONAL VIOLENCE

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy, visit [CSU Policy: Title IX Sexual Harassment.Links to an external site.](#)

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- [Student Resolution CenterLinks to an external site.](#), 200 Lory Student Center, (970) 491-7165
- [Office of Equal OpportunityLinks to an external site.](#), Student Services Building, Room 101, (970) 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological, and legal aftermath of interpersonal violence. Contact the [Victim Assistance TeamLinks to an external site.](#) at 970-492-4242.

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## RELIGIOUS OBSERVANCES

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to complete the [Request FormLinks to an external site.](#) at least one full week prior to the event.

Once submitted, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

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## CSU PRINCIPLES OF COMMUNITY

**Inclusion:** We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents, and contributions.

**Integrity:** We are accountable for our actions and will act ethically and honestly in all our interactions.

**Respect:** We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

**Service:** We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

**Social Justice:** We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

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## DIVERSITY AND INCLUSION

The [Office of Inclusive Excellence](#)[Links to an external site.](#) website includes a comprehensive statement of CSU's commitment to diversity and inclusion.