

BIOLOGY 319: MARINE ECOLOGY

Spring Term 2024

Instructors

Dr. Benjamin Neal, benjaminpneal@uvic.ca

TA: Talen Rimmer, rimmertalen@gmail.com

TA: Olivia Melville, oliviamelville@uvic.ca

TA: Jake Dingwall, jdingwall@uvic.ca

Learning objectives:

1. To develop an understanding of the science of ecology as it applies to marine ecosystems.
2. To develop an understanding of community ecology in a diverse array of marine ecosystems ranging from the tropics to the polar regions
3. To explore major patterns of biodiversity (causes and effects) in the ocean.
4. To develop applied skills for studying marine ecology (intertidal field sampling, image analysis, statistical skills, etc.)

Text: There is no textbook for this class. Lab outlines and assigned lecture readings will be available on Brightspace.

Lecture schedule: Tuesday, Wednesday, and Friday 12:30 PST – 1:20 PST in Clearihue A224. The lecture schedule will be posted and edited online, with the link available on Brightspace. Please note that the online schedule may be changed due to illness, guest speakers, etc., as the term goes on, so please check it as needed.

Lab sections: There are three lab sections. Tuesday, Wednesday, and Thursday 2:30 to 5:20. Labs will be in Petch 107, unless held in the one of the computer labs on campus (details will be on Brightspace when needed). The lab schedule is posted as part of the online schedule as described above.

Lectures and labs will be delivered in person. Should we need to alter this, for example for COVID in the class, lectures will be delivered synchronously via Zoom or Echo360. Links will be provided on the Brightspace page in this eventuality.

Lectures will be recorded as much as possible using Echo360 to allow students who are not able to attend to watch later, but recording is not guaranteed. The recordings will be posted on Brightspace. Be aware this may not be possible in some cases, and in this case the only student resource for review of content will be posted PDFs of lecture slides. If you have other questions or concerns regarding privacy with class recordings please contact privacyinfo@uvic.ca.

Brightspace: All course information including lectures PDFs, lab materials, guidelines for assignments, etc will be communicated and delivered via Brightspace. Lab assignments will be delivered and graded on Brightspace as well.

We acknowledge the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

Topic outline:

Our focus in this course will be primarily on community interactions, food webs, and human impacts to marine biological systems. We will survey the following marine ecosystems and discuss relevant physical and biological features that have contributed to these ecosystems.

- Shore ecosystems (rocky and sandy beaches)
- Kelp forests
- Eelgrass meadows
- Saltmarsh ecosystems
- Mangrove forests
- Coral reefs
- Deep-sea communities (abyssal planes, hydrothermal vents, whale falls, seamounts, etc.)
- Polar ecosystems

Evaluation:

Lecture exams (4 total): 60%

Lab 40%

Lecture evaluation breakdown (60%):

Each exam will be worth 15% of the final grade. Content will focus on the content for that section, but may include material from previous sections (i.e. some questions may be cumulative, such as comparisons of ecosystems from different sections). Dates for these exams will be on the online schedule as described above (see link on course Brightspace page for details).

Lab mark breakdown (40%):

Initial lab assignments (stats and trawl) 5%

Pat Bay mudflat report 10%

Pat Bay meiofauna report 10%

Coastal systems lab report 10%

Lab attendance, conduct and quality of participation 5%

Please note that the last day for withdrawing from full year and second term courses without penalty of failure is Thursday February 29th, 2024, and that the assignments and in-class exams are timed such that students will receive grade feedback prior to that Academic Drop Deadline.

At a minimum, students must achieve 50% in the lab portion of the course to pass and must also complete or receive deferrals for at least three of the four exams. Deferrals will be granted only in cases of medical need or notable personal issues. Exam deferrals will not be granted for athletics, personal choice, or travel. In the case of an approved exam deferral, the total grading for the lecture portion of the course will be calculated from the other three exams (i.e. no penalty

in grading). Course grading will follow the official UVIC undergraduate university-wide grading system, as outlined here:

<https://www.uvic.ca/calendar/future/undergrad/index.php#/policy/S1AAgoGuV?bc=true&bcCurrent=14%20-%20Grading&bcGroup=Undergraduate%20Academic%20Regulations&bcItemType=policies>

As per the above university-wide system, the minimum to achieve a passing grade is 50 points. Cumulative individual grades for the term below 50 points where the student completed all elements will be assigned a grade of F, and cumulative individual grades for the term where the student did not write any of the assigned examinations (and was not given deferral by instructor) or failed to complete other course requirements by the end of term or session will be assigned a grade of N. Missed exams or lab assignments must be reported to the instructor or your lab TA by email, as soon as possible. Reasonable accommodations may be made by the instructor, on a case-by-case basis; please contact as soon as any conflict is known and provide all relevant details by email. Certified or private medical details are not needed, please provide only what is needed to allow for instructor evaluation of the case. For COVID infections, please do not come to class or office hours, but report details via email.

Late assignments will be reduced by 10% of the grade per day or fraction thereof, starting at the required time of submission. If there are extenuating circumstances, please report these as early as possible to both the instructor and the assigned lab TA.

Academic regulation:

Academic integrity is intellectual honesty and responsibility for academic work that you submit individual or group work. It involves commitment to the values of honesty, trust, and responsibility. It is expected that students will respect these ethical values in all activities related to learning, teaching, research, and service.

1. VERY IMPORTANT: UVic's policy on academic integrity (<https://tinyurl.com/ycjeyumu>)
2. Know your responsibilities as outlined in the calendar (<https://tinyurl.com/y3o8q586>)
3. The Center for Accessible Learning is here to help (<https://www.uvic.ca/services/cal/>)
4. Grades are assigned on a percentage scale in accordance with UVic policy as outlined in the calendar (<https://tinyurl.com/y7qydfyy>)
5. Please read UVic's policy on copyright (<https://www.uvic.ca/library/featured/copyright/>)
6. Important UVic dates including dates for adding and dropping course, holidays, etc. (<https://www.uvic.ca/calendar/dates/>)
7. Please read UVic's policy on plagiarism (<https://www.uvic.ca/library/research/citation/plagiarism/index.php>)

Equity & CAL policies: UVic is committed to upholding the values of equity, diversity, inclusion and human rights in our living, learning and work environments. We know that diversity underpins excellence, and that we all share responsibility for creating an equitable, diverse and inclusive community. As per UVIC policies, all assessments will be conducted in accordance with the Center for Accessible Learning (CAL) Universal Design for Learning (UDL) guidelines. Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please

feel free to approach me and/or CAL as soon as possible. CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

Course Experience Survey:

I value your feedback on this course. At the end of term you will can complete a confidential course experience survey (CES). The survey provides feedback to me regarding the course and helps the department to improve. You will receive email reminders nearer the time but please be thinking about the following three questions during the course: 1) What strengths did your instructor demonstrate that helped you learn in this course? 2) Please provide specific suggestions as to how the instructor could have helped you learn more effectively. 3) Please provide specific suggestions as to how this course could be improved.