

**We acknowledge with respect 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.**

**Instructors:**

Lecturer: Dr. Rana El-Sabaawi (She/her/hers) ([rana@uvic.ca](mailto:rana@uvic.ca))

TA and marker: Ms. Annika Heimrich (She/her/hers) ([annikaheimrich@uvic.ca](mailto:annikaheimrich@uvic.ca))

**Brief description:** This course provides a basic understanding of the geological, physical, chemical, and biological processes that form and maintain lake and reservoir ecosystems. It covers both theoretical and applied aspects of freshwater ecology, and discusses the studies and experiments that have been used to test important theories and applications. It also covers anthropogenic and environmental threats to and impacts on freshwater ecosystems.

Some of the topics covered include:

1. Lake morphology and geological origin
2. The water cycle of lakes and rivers
3. Nutrient cycles of lakes and rivers
4. Food webs of lakes and rivers
5. Human impacts including pollution and climate change
6. Ecology and management of lake and stream ecosystems

**Learning outcomes:** by the end of this course you will have an excellent foundational understanding of ecosystem processes in lakes and rivers. You will understand how lakes and rivers are formed geologically, and how they vary seasonally in terms of their biology, chemistry, and physics. You will also be able to describe and understand how they might vary in the future under different human impact scenarios. You will be able to produce and interpret a variety of scientific figures related to lakes and rivers, and to extrapolate from these figures a broader picture of the ecosystem. Examples of these figures include depth profiles of water and sediment, morphometric figures, hydrographs, light transmission profiles, etc. You will be able to critically interpret the results of food web manipulation experiment. Finally, you will also be able to calculate and interpolate various ecosystem metrics. Interpreting figures and calculations are a substantial part of this course. If you have concerns about meeting learning objectives please let me know immediately.

## Logistics:

*Communication:* All course information including lectures PDFs will be communicated and delivered via Brightspace. Please ensure that the email that use for Brightspace is the one you check most frequently. ***There is no textbook for this class. All course materials will be posted on Brightspace as needed.***

*Lecture schedule:* is M and Thursday 11:30 AM PST – 12:50 PST

*Lectures* will be delivered in-person (Elliott Building 062). Should we need to pivot to a virtual platform I will send out instructions for connections, etc.

Please be aware that whenever possible in-person lectures will be recorded using Echo360 to accommodate students who are not able to attend because of illness. If you have other questions or concerns regarding class recording and privacy please contact [privacyinfo@uvic.ca](mailto:privacyinfo@uvic.ca). The recordings will be posted in Brightspace for a max. of 1 week after class and then removed. Some in class activities such as discussions or group exercises will not be recorded.

In-person attendance of lectures is expected. Recording technologies can fail, and there is no guarantee that any lecture will be recorded successfully. In other words, do not rely on videos as your primary methods for attending class.

## Evaluation:

*Quizzes (4 at 5% each, 20% total):* The goal of these quizzes is to help you understand the lecture materials and keep up with it. They will be a combination of multiple choice, written, calculation, and/or figure drawing/interpreting exercises. They will be posted on Brightspace on Thursdays (starting on Thursday 18 Sept) and will remain open until the following Monday.

*Midterm (30%) Thursday Oct 19<sup>th</sup> during class time:* This midterm will cover all lectures up to the date of the midterm. It will be an open book exam. The midterm will be administered via Brightspace, but will be invigilated using zoom. Students can write this midterm from anywhere they want, but must have stable internet and also a functioning computer camera. Please start planning for this immediately, and if you have any concerns, let me know as soon as you can.

*Final Exam (50%):* The final exam will be an in-person, cumulative, open-book exam, to be scheduled during the final exam period. Some portion of the exam will be administered via Brightspace, and the rest will be on paper.

## Medical absences and missed exams:

Medical documentation for short-term absences is not required (as approved by UVic Senate). However, attendance is important. Students who cannot attend due to illness are asked to notify their instructors immediately. If a student misses the midterm, a deferred midterm will be offered on Sat Oct 28 at 10 AM. Note that the marks from the midterm cannot be redistributed across the quizzes or the final exam.

If illness, accident, or family affliction causes a student to miss the final exam students are required to submit a request for academic concession, with associated documentation, as outlined in the UVic Calendar (<https://www.uvic.ca/registrar/students/appeals/acad-concession/index.php>).

### **Core principles:**

1. We will keep ourselves and each other safe by following public health orders and university guidelines. If you are sick please follow current guidelines (<https://tinyurl.com/2p8ehd6j>).
2. We are committed to equity, diversity and inclusion. Our goal is to create an inclusive environment where all are welcome. We ask students to be respectful of each other and mindful of bias. Additional resources on equity, diversity and inclusion will be available on Brightspace. If you are registered with the center for accessible learning (CAL, <https://www.uvic.ca/services/cal/>), or have any concerns about barriers to success, please discuss them with us as soon as you can.
3. We will maintain a high standard of academic integrity. Please review the UVic Calendar (links below) to refresh yourselves on the UVic guidelines for integrity and plagiarism.

### **Academic regulations:**

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. All course content and materials are made available by instructors for educational purposes and for the exclusive use of students registered in their class. The material is protected under copyright law, even if not marked with a ©. Any further use or distribution of materials to others requires the written permission of the instructor, except under fair dealing or another exception in the Copyright Act. Violations may result in disciplinary action under the Resolution of Non-Academic Misconduct Allegations policy (AC1300). Students may not distribute lecture notes or any exams or quizzes from the course without permission of the instructor, and to do so, through note-sharing sites or other means, violates the Policy on Academic Integrity 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>)

8. Important academic dates including add and drop dates can be found on the UVic website

(<https://www.uvic.ca/calendar/dates/>)

**Class schedule:**

<b>Week number</b>	<b>Date</b>	<b>Quiz or activity</b>
Week 1	4-Sep-23	
Week 2	11-Sep-23	
Week 3	18-Sep-23	Q1
Week 4	25-Sep-23	
Week 5	2-Oct-23	Q2
Week 6	9-Oct-23	
Week 7	16-Oct-23	Midterm (19TH)
Week 8	23-Oct-23	
Week 9	30-Oct-23	Q3
Week 10	6-Nov-23	
Week 11	13-Nov-23	Q4
Week 12	20-Nov-23	
Week 13	27-Nov-23	