EESC18H3 S

Limnology

Winter 2024 Syllabus

## Course Meetings

### EESC18H3 S

| **Section** | **Day & Time** | **Delivery Mode & Location** |
| --- | --- | --- |
| **LEC01** | Thursday, 2:00 PM - 4:00 PM | In Person: HW 214 |

Refer to ACORN for the most up-to-date information about the location of the course meetings.

Tutorials starts on the second week

Midterm is in-class Feb 15th

## Course Contacts

**Instructor:** Dr. Maria Dittrich

**Email:** [m.dittrich@utoronto.ca](mailto:m.dittrich@utoronto.ca)

**Phone:** 416-208-2786

**Office Hours and Location:** Wednesdays

## Course Overview

North America is endowed with eight of the twelve largest lakes in the world. The origin and geological history, cycles of carbon, nitrogen and phosphorus, and structures of ecosystems of the North American Great Lakes will be used as examples of large lacustrine systems. Fundamental concepts of limnology will be related to features found in the Great Lakes.  Topics include: lake origins, lake classification, lake temperature structure and heat budgets, seasonal water circulations, productivity, plankton ecology, food-web dynamics, exotic species invasions, eutrophication-related phenomena and water quality/fisheries management.  Specific anthropogenic influences will be illustrated using case studies from the local environment, and students will be allowed to pursue their own interests through a series of short seminars.

North America is endowed with eight of the twelve largest fresh-water lakes in the world. The origin and geological history, cycles of carbon, nitrogen and phosphorus, and structures of ecosystems of the North American Great Lakes will be used as examples of large lacustrine systems.

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### Course Learning Outcomes

By the end of the course students will be able to evaluate a stability of stratification in water column in lakes, explain an succession of phytoplankton in Great Lakes, have a solid background in sources and transformation of organic, inorganic pollutants, microplastics and invasive species in Great Lakes, describe the steps of remediation plans for the area of concerns.

**Prerequisites**: EESB03H3

**Corequisites**: None

**Exclusions:** None

**Recommended Preparation**: EESB02H3

**Credit Value:** 0.5

Recommended you take Chemistry courses

## Course Materials

The course materials are provided on Quercus.

## Marking Scheme

| **Assessment** | **Percent** | **Details** | **Due Date** |
| --- | --- | --- | --- |
| **In class MIDTERM TEST** | 25% | A midterm test will be in-class. | 2024-02-15 |
| **Four Assignments** | 20% | There will be four assignments, problem-solving testing distributed through the whole course. | 2024-01-30,2024-02-13,2024-03-05,2024-03-26 |
| **Four Quizzes** | 20% | There will be four quizzes. | 2024-01-18,2024-02-01,2024-03-07,2024-02-15 |
| **Student's Presentation** | 10% | Students will prepare a presentation at the end of the course, working in small groups. | 2024-04-04 |
| **Final Exam** | 25% | The final exam covers all the curse materials. | Final Exam Period |

### Late Assessment Submissions Policy

The late policies: 5% penalty per day, and an assignment will not be accepted more than 1 week after due date.

Extensions without penalty will be granted for reasons of accommodation, illness or emergencies when appropriate documentation is submitted to the instructor.

Reweighting of assignments/grades is not permitted.

## Policies & Statements

### Plagiarism Detection Tool

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (<https://uoft.me/pdt-faq>).

### Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.  
  
Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.  
  
On tests and exams, cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University.

### Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.  
  
The University of Toronto is a richly diverse community and as such is committed to providing an environment free of any form of harassment, misconduct, or discrimination. In this course, I seek to foster a civil, respectful, and open-minded climate in which we can all work together to develop a better understanding of key questions and debates through meaningful dialogue. As such, I expect all involved with this course to refrain from actions or behaviours that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem based on traits related to race, religion, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status, disability, receipt of public assistance or record of offences.

### University Land Acknowledgement

I wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

### Accommodations

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 the AccessAbility Services Office as soon as possible.  
  
AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email [ability.utsc@utoronto.ca](mailto:ability.utsc@utoronto.ca). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

### Use of Generative Artificial Intelligence Tools

Students may use artificial intelligence tools, including generative AI, in this course as learning aids or to help produce assignments. However, students are ultimately accountable for the work they submit.  
  
Students may not use artificial intelligence tools for taking tests, writing research papers, creating computer code, or completing major course assignments. However, these tools may be useful when gathering information from across sources and assimilating it for understanding.  
  
The knowing use of generative artificial intelligence tools, including ChatGPT and other AI writing and coding assistants, for the completion of, or to support the completion of, an examination, term test, assignment, or any other form of academic assessment, may be considered an academic offense in this course.

### Recording of Classroom Material by Students

Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted.