

# GEOG 3352A – Paleolimnology and Global Environmental Change

## Course Outline: Fall 2022

This course is taught in-person

### 1. Course Information

	Delivery Mode	Day/Time	Location
Lecture	In-person	Tuesday 10:30am-12:30pm	SSC1302
Lab	In-person	Wednesday 2:30pm-4:30pm	SSC1302

\*Details about design and delivery of the course are listed below in Section 6

Classes Start	Fall Reading Week	Classes End	Study day(s)	Exam Period
September 8	October 31-November 6	December 8	December 9	December 10-22

September 16, 2022: Last day to add a first-term half course

October 10, 2022: Thanksgiving Holiday

November 12, 2022: Last day to drop a first term half course without penalty

Course Instructor	Contact Information	Office Hours
Kevin Ng	kng342@uwo.ca	By Appointment

Teaching Assistant(s)	Contact Information	Office Hours
Brittany Brasier	bbrasier@uwo.ca	Wednesdays 1:30pm-2:30pm

- Office hours will be held in-person or by requesting an appointment.
- Students will be able to sign up for an appointment with Kevin by email (Sign Up on OWL)
- Students will be able to drop in during Brittany's on office hours Wednesdays.
- Mandatory synchronous sessions will be held during lecture on Tuesdays from 10:30am-12:30pm and during specific lab dates indicated on the course calendar on Wednesdays from 2:30pm-4:30pm.

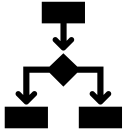
### 2. Calendar Description

This course provides students with an introduction to paleolimnology, which uses the physical, chemical and biological characteristics of lake sediments to determine past environments.

2 lecture hours, 2 laboratory hours

Prerequisite(s): One of Geography 2310A/B, Geography 2320A/B or Geography 2330A/B, or at least 3<sup>rd</sup> year standing in an Environmental Science or Earth Sciences program, or Biology 2483A/B, Biology 2485A/B.

Prerequisite checking is the student's responsibility



Senate Regulations state, “unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.”

### 3. Textbook



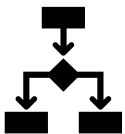
Recommended textbook

Smol, J.P. 2008. *Pollution of Rivers and Lakes: A Paleoenvironmental Perspective*, 2nd Edition. Blackwell Publishing, Oxford

### 4. Course Objectives and Format

This course provides students with a “hands-on” learning experience in an area of environmental science, paleolimnology. The field outing provides students with the opportunity to observe and participate in learning field skills within the field of paleolimnology. Students will learn to make and record limnologic observations and measurements. Lectures provide the background materials necessary for understanding and interpreting data collected by students.

Active participation from students, both for assessment, and to enhance the learning experience of the entire class is required. Active learning supports higher-level learning and improves retention of material (Prince, 2004). Lectures will include brainstorming, activities, work periods and discussion. Please come to class prepared to be involved and to be respectful to your classmates and the instructor team. Derogatory or offensive remarks and responses are not acceptable, nor are they effective forms of academic debate. Participation will be graded, and there are formal and informal expectations of involvement.



Attendance is required

All course material will be posted to OWL: <http://owl.uwo.ca>. Any changes will be indicated on the OWL site and discussed with the class.

Google Chrome or Mozilla Firefox are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click [here](#).

If students need assistance, they can seek support on the [OWL Help page](#). Alternatively, they can contact the [Western Technology Services Helpdesk](#). They can be contacted by phone at 519-661-3800 or ext. 83800.

## 5. Learning Outcomes

Upon successful completion of this course, students will be able to:

1. explain the importance of a long-term perspective in environmental research
2. know basic limnological principals
3. describe the most recent theories and methodologies in Paleolimnology
4. relate the contributions of Paleolimnology to our understanding of global environmental change
5. appreciate Canada's water resources and our responsibility to protect those resources
6. apply paleolimnological techniques to address environmental issues
7. communicate scientific findings



## 6. Course Content and Schedule

Week	Dates	Topic	Labs	Readings
1	Sept 12-16	Course Introduction: What is paleolimnology?	No lab	Chapter 2 & 3
2	Sept 19-23	Properties of water and lake zones	No lab	Chapter 1
3	Sept 26-30	Lakes and their sediments	No lab	Chapter 3
4	Oct 3-7	Assigning ages to Sediments	<b>Lab 1 Introduction</b>	Chapter 4
5	Oct 10-14	Paleoindicators/Diatoms	Lab 1 Continued	Chapter 5 & 6
6	Oct 17-21	Catchment and landscape change	<b>Lab 1 Due/ Lab 2 Introduction + Field Trip Intro</b>	Chapter 12
	Oct 22	<b>Field Trip (All day)</b>		
7	Oct 24-28	<b>Midterm</b>	Lab 2 Continued	N/A
	Oct 31-Nov 4	<b>Reading Week</b>		
8	Nov 7-11	Environmental reconstructions	<b>Lab 2 Due/ Lab 3 Introduction</b>	Chapter 5 & 6
9	Nov 14-18	Eutrophication	Lab 3 Continue	Chapter 11
10	Nov 21-25	Acidification	<b>Lab 3 Due</b>	Chapter 7
11	Nov 28- Dec 2	Climate change	No lab	Chapter 14
12	Dec 5-8	Review	No lab	N/A



## 7. Communication



- Students should check the OWL site every 24 – 48 hours
- Announcements will be posted on the OWL site as needed. Students are responsible for checking the OWL site and syllabus for all pertinent information prior to contacting the instructor or teaching assistant.



- For any other communication, the centrally administered **e-mail account** provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. You can read about the privacy and security of the UWO email accounts [here](#).
- Emails will be monitored daily; students will receive a response in 24 – 48 hours

## 8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.

Assessment	Format	Weighting	Due Date
<b>Labs (3 labs)</b>	Written Report/Answering Questions	<b>35%</b> (Labs 1 & 2: 10%; Lab 3: 15%)	Indicated on course schedule
<b>Midterm Exam</b>	Written	<b>30%</b>	October 25, 2022
<b>Final Exam</b>	Written	<b>35%</b>	Scheduled by registrar

The evaluation methods described in the course outline are essential requirements for the course. Students are responsible for material covered in the lectures as well as the material covered in labs.



- All assignments are due at 11:55 pm EST unless otherwise specified
- After an assessment is returned, students should wait 24 hours to digest feedback before contacting their evaluator; to ensure a timely response, reach out within 7 days

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

### Information about late or missed evaluations:

- Late assessments without illness self-reports will be subject to a late penalty 10%/day
- Late assessments with illness self-reports should be submitted within 24 hours of submission of the last illness self-report

- An assessment cannot be submitted after it has been returned to the class; the weight will be transferred to the final grade
- The weight of a missed test will be transferred to the final grade.

**Grades will not be adjusted on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.**

## 9. Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).

### Academic Consideration for Student Absence

In all cases where accommodation is being sought for work totalling 10% or more of the final grade in a course, students will be directed to the appropriate Faculty Dean's office.

Students who have been denied accommodation by an instructor may appeal this decision to the appropriate Faculty Dean's office but will be required to present appropriate documentation.

The University recognizes that a student's ability to meet their academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), or it may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation for work representing 10% or more of the student's overall grade in the course shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet their academic responsibilities.

### Policy on Academic Consideration for Medical Illness - Undergraduate Students

#### Student Medical Certificate (SMC)

### Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Multicultural Calendar](#).

## 10. Make-up Examinations

Makeups will be granted with approved documentation only. All documentation for missed exams must be provided to the Academic Counselling Office within 48 hours of the scheduled exam, otherwise the instructor will assign a grade of zero.

The format and content of make-ups may differ substantially from the scheduled test or examination.

## 11. Use of Electronic Devices

No electronic devices will be allowed during tests and examinations unless stated otherwise by the instructor.

## 12. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
3. Follow weekly checklists created on OWL or create your own to help you stay on track.
4. Take notes as you go through the lesson material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively.
5. Connect with others. Try forming a study group and try meeting on a weekly basis for study and peer support.
6. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
7. Reward yourself for successes. It seems easier to motivate ourselves knowing that there is something waiting for us at the end of the task.



## 13. Continuity of Education Plan (in-person class pivoting to online learning)

In the event of a COVID-19 resurgence during the course that necessitates the university to direct courses move away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

## 14. Information on COVID-19

### Masking Guidelines

Students will be expected to wear triple layer, non-medical, paper masks at all times in the classroom as per University policy and public health directives. Students who are unable to wear a mask must seek formal accommodation through Western Accessible Education, and present medical documentation.

Students are not permitted to eat or drink while in class to ensure masks stay in place. Students will be able to eat and drink outside of the classroom during scheduled breaks.

Students unwilling to wear a mask as stipulated by Western policy and public health directives will be referred to the Dean, and such actions will be considered a violation of the student Code of Conduct.

### Course Absences due to Daily COVID Screening Questionnaire

Missed assessments (e.g., presentations, essays, quizzes, tests, midterms, etc.) require formal academic considerations (typically academic counselling).

#### Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence.

### **15. Western's Commitment to Accessibility**

The Department of Geography and Environment strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar's website.

More information about "Accessibility at Western" is available.

### **16. Mental Health**

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit Western's Health and Wellness website for more information on mental health resources.

### **17. Support Services**

Western's Support Services  
Student Development Centre

### **18. Important Dates**

September 8: Classes resume

September 16: Last day to add a first term half course

October 10: Thanksgiving Holiday – Department Office Closed

October 31 to November 6: Fall Reading Week (No classes; Department Office open)

November 12: Last day to drop a first term half course without penalty

November 30: Last day to drop a full course without penalty

December 8: Classes end

December 9: Study day

December 10-22: Examination Period