



ENVS*3180 - Sedimentary Environments

Fall 2026 Course Outline

Section: 01

Credits: 0.50

Land Acknowledgement: Guelph

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Métis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Métis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

Calendar Description

This course examines the principles of sedimentology and stratigraphy as applied to various ancient and modern sedimentary systems. Students will learn to describe and interpret sedimentary deposits in terrestrial and marine systems as well as the larger forces that control the preservation and evolution of these sedimentary systems over geological time. The course includes several field trips.

Prerequisite(s): ENVS*1050 or ENVS*2240

Restriction(s): ENVS*2400

Department(s): School of Environmental Sciences

Lecture Schedule

MonWedFri 3:30pm-4:20pm in ALEX*028 (9/10 to 12/22)

Lab / Seminar Sections

Day	Time	Location
Friday	8:30-11:20	Alex 024 or field

Instructor Information

Emmanuelle Arnaud

Email: earnaud@uoguelph.ca

Additional Support

If at any point you are experiencing difficulty, please reach out for help. I'm here to facilitate your learning and your success this semester and can help to connect you with the right supports.

For more Info: go to www.wellness.uoguelph.ca. or call Good2Talk 24/7 at 1-866-925-5454

Textbooks

Group	Title	Author	ISBN
Required	Sedimentology and Stratigraphy	G. Nichols	9781405135924

Learning Resources

Course Resources

Check the courselink course website for additional in-course resources and information including instructions for labs. Login with your email login and password at: Course link (Website) (<https://courselink.uoguelph.ca/>)

Campus Resources

If you are concerned about any aspect of your academic program: Make an appointment with a Program Counsellor (<https://www.uoguelph.ca/uaic/programcounsellors>) in your degree program. If you are struggling to succeed academically: There are numerous academic resources offered by the Learning Commons (<https://www.lib.uoguelph.ca/using-library/spaces/learning-commons>) including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills.

Cost of Textbooks and Learning Resources

The cost of the required text for this course, (Sedimentology and Stratigraphy) by Gary Nichols, is \$69.95 at the campus bookstore. Students are welcomed to use second-hand copies of the textbook or purchase the textbook from alternate locations. The textbook will also be available through the library (ARES). Students are advised that prices of textbooks are often determined by the publisher or bookstore and may be subject to change. The prices in other locations may differ from that at the bookstore. There will be five field trips associated with data collection and skills development in the lab assignments. The \$30 will help us offset the total cost of transportation.

Textbook / Learning Resource	Required / Recommended	Cost
Sedimentology and Stratigraphy textbook	Required	\$69.95
Field trips	Required	\$30.00

Library Course Reserve (Ares)

For this course, you will be required to access course reserve materials through the University of Guelph McLaughlin Library. To access these items, select **Ares** on the navbar in CourseLink. Note that you will need your Central Login ID and password in order to access items on reserve.

For further instructions on accessing reserve resources, visit How to Get Course Reserve Materials (<https://www.lib.uoguelph.ca/find/course-reserves-ares/>).

If at any point during the course you have difficulty accessing reserve materials, please contact the e-Learning Operations and Reserve Services staff at:

Tel: 519-824-4120 ext. 53621 | Email: libres2@uoguelph.ca | Location: McLaughlin Library, First Floor, University of Guelph

Course Learning Outcomes

1. Demonstrate the ability to characterize sedimentary deposits by constructing a stratigraphic log and describing sedimentary deposits using standard terminology
2. Differentiate environments based on typical facies associations and use this information to interpret the origin of sedimentary deposits using a facies approach
3. Demonstrate understanding of stratigraphic relationships by using these to deduce basin/site history
4. Demonstrate the value of detailed observation and the use of different scales in analysis of sedimentary data
5. Create a depositional model or conceptual framework for a site and use it as a predictive tool

Schedule of Topics and Assignments

Week of	Topic	Activities	Due
9/11	Introductions, overview	Chapter 1, 2 No Lab this week	
9/14	Processes and products	Chapter 4 Lab 1 in Alex 024	
9/21	Processes and Products/Facies Analysis	Chapter 5 Lab 1 in Alex 024	
9/28	Terrestrial environments- fluvial	Chapter 9.1-9.4 Lab 2, location to be confirmed	Lab 1 due Friday October 2

10/5	Terrestrial environments-glacial	Chapter 7 Lab 2, location to be confirmed	
10/12		Thanksgiving Holiday	
10/14	Terrestrial environments-lakes	Chapter 10 (skip 10.3 and 10.4) Lab 2, location to be confirmed	
10/19	Marginal Marine environments	Chapter 12.1-12.3, 13.1-13.2 Lab 3 in the field Midterm Wednesday October 21 in class	Lab 2 Due Friday Oct 23
10/26	Marine environments	Chapter 11, 14, 16 (skip 16.2.2, 16.3, 16.4) Lab 3 in the field	
11/2	Stratigraphic concepts	Chapter 19 No Lab	Lab 3 Due Friday Nov 6
11/9	Subsurface sedimentary environments	Chapter 22 Lab 4 in Alex 024 Field trip Saturday NOV 14	
11/16	sea level change and sequence stratigraphy	Chapter 23 Lab 4 in Alex 024	
11/23	biostratigraphy and dating techniques	Chapter 20-21 No Lab	Lab 4 Due Friday Nov 27
11/30	Final exam review	Final class Friday (makeup for Thanksgiving) No Lab	
12/7	Exam period starts		

Assessment Breakdown

{NOTE: instructor can add another row by hitting "TAB" button when they are at the end of the row}

Description	Weighting (%)	Due Date
Lab 1	12.5%	Oct 2
Lab 2	12.5%	Oct 23
Lab 3	12.5%	Nov 6
Lab 4	12.5%	Nov 27
Midterm	20%	Oct 21
Final exam	30%	TBD

Last Day to Drop Course

The final day to drop Fall 2026 courses without academic penalty is the last day of classes: December 04

After this date, a mark will be recorded, whether course work is completed or not (a zero is assigned for missed tests/assignments). This mark will show on the student's transcript and will be calculated into their average.

Course Grading Policies

Submission of Assignments

Assignments should be submitted electronically via the online **Dropbox** tool in **courselink**, following the **file naming convention** (**LastName_assignmentname.doc or PDF**). When submitting your assignments using the **Dropbox** tool, do not leave the page until your assignment has successfully uploaded. To verify that your submission was complete, you can view the submission history immediately after the upload to see which files uploaded successfully.

Be sure to keep a back-up copy of all of your assignments in the event that they are lost in transition. In order to avoid any last-minute computer problems, I strongly recommend you save your assignments to a cloud-based file storage (e.g., OneDrive), or send to your email account, so that should something happen to your computer, the assignment could still be submitted on time or re-submitted.

Late Assignment

All assignments are to be submitted through Dropbox on the course website by the due date (please check the schedule posted on the course website). If you cannot meet a course requirement, let me know by email as soon as possible and preferably before the due date. Late assignment will be penalized 10% per day and will no longer be accepted a week after the due date. *Please note that these policies are binding unless academic consideration is given to an individual student.

Standard Statements for Undergraduate Courses

Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-misconduct/>) is outlined in the Undergraduate Calendar.

Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability. Use of the SAS Exam Centre requires students to make a booking at least 10 business days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). For students at the Guelph campus, information can be found on the SAS website. (<https://www.uoguelph.ca/sas>)

Accommodation of Religious Obligations

If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor within two weeks of the start of the semester to make alternate arrangements.

See the Academic calendar for information on regulations and procedures for Academic Accommodations of Religious Obligations (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-accommodation-religious-obligations/>).

Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all undergraduate students except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in the Undergraduate Calendar - Dropping Courses (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/dropping-courses/>).

Email Communication

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

Health and Wellbeing

The University of Guelph provides a wide range of health and wellbeing services at the Vaccarino Centre for Student Wellness (<https://wellness.uoguelph.ca/>). If you are concerned about your mental health and not sure where to start, connect with a Student Wellness Navigator (<https://wellness.uoguelph.ca/navigators>) who can help develop a plan to manage and support your mental health or check out our mental wellbeing resources (<https://wellness.uoguelph.ca/shine-this-year>). The Student Wellness team are here to help and welcome the opportunity to connect with you.

Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

Recording of Materials

Presentations that are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources

The Academic Calendars (<http://www.uoguelph.ca/registrar/calendars/?index>) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for Academic Consideration. (<https://calendar.uoguelph.ca/undergraduate-calendar/undergraduate-degree-regulations-procedures/academic-consideration-appeals-petitions/>)