

**University of Guelph - Department of Geography, Environment & Geomatics**  
**Course Description – Winter 2024**

**GEOG\*1300 INTRODUCTION TO THE BIOPHYSICAL ENVIRONMENT**

**Class Meetings:** MWF 4:30 – 5:20, ROZH 103

**Instructor:** Ze'ev Gedalof ([zgedalof@uoguelph.ca](mailto:zgedalof@uoguelph.ca))

**Office Hours:** Tuesday and Thursday, Noon – 1:00; Wednesdays 3:00 – 4:00 Hutt 356

**Graduate Teaching Assistants:**

Eva Bird ([birde@uoguelph.ca](mailto:birde@uoguelph.ca)) Sections 03 & 07

Md. “Zion” Bodruddoza ([mbodrudd@uoguelph.ca](mailto:mbodrudd@uoguelph.ca)) Section 06

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Bowen Roger ([broger@uoguelph.ca](mailto:broger@uoguelph.ca)) Sections 02, 04 & 05

**GTA Office Hours:** TBA

**Service Dog(s):** None this year



**REQUIRED TEXT**

Alan F. Arbogast *et al.* (2018). *Discovering Physical Geography – Canadian Edition*. Wiley

**OVERVIEW**

This course is the foundation for more specialized courses in physical geography and geomatics. In it we will learn the basic principles of physical geography: biogeography, climatology, geomorphology, hydrology, and soil science. More specifically, we will look at the patterns and processes governing climate, landforms, and vegetation systems, and their interrelationships. We will look at both natural and human-induced changes to environmental systems. Laboratories will address techniques of measurement, representation and analysis of environmental systems through maps, remotely sensed images, laboratory, and field observations.

**COURSE AIM**

The aim of this course is to introduce the components of the Earth's natural systems as studied by physical geographers through the processes, interactions and flows of energy between of the atmosphere, hydrosphere, lithosphere and biosphere. The surface of the Earth is an extremely dynamic environment where forces and processes driven by internal and external sources of energy interact to create climate, landforms and landscapes. The effects of solar energy, climate, tectonic activity, gravity, weathering, erosion and sediment transport will be discussed within the context of physical geography. While much of the material covered will be descriptive, rather than mathematical, students are reminded that Physical Geography is a quantitative science and some of the material in this course draws upon basic science theory and relationships. From time to time simple numerical relationships will be introduced and you will be expected to solve simple problems in lab assignments and on the final exam.

## OBJECTIVES

- To learn the fundamental principles of physical geography
- To develop basic skills for the measurement and analysis of data relevant to earth systems
- To appreciate the beautiful complexity of the Earth system, and to experience the joy that comes from exploring it.

## APPROACH

The course will largely follow the textbook, with each major theme covered by in-class material supported by laboratory exercises. This is a large class, but questions, comments, and interaction are important. In my experience CourseLink is a useful resource if students use it collectively.

## EXPECTATIONS

Students are required to be respectful of their peers, GTAS, and the course instructor (e.g., if you wish to talk with your friends, check or post in your social media accounts, or use your cell phone please do so outside of class).

Lectures are intended to supplement the assigned readings, so students should review this material prior to class. Some in-class participation discussions will be based on assigned readings, and these must be completed before class.

**The use of digital devices (phones, tablets, laptops, etc.) for any purpose other than note-taking is not permitted during class time unless you are sitting where no other students can see your screen.** This is because the science shows that you distract the people around you more than you distract yourself and that's just not fair to them.

[See here for details](#)

**I do not make my PowerPoint files available on CourseLink. There are many reasons for this, but it boils down to two main considerations: You learn more if I don't provide them; and much of the material I present is copyrighted and I am not allowed to distribute it outside of the classroom.**

**The sharing of electronic files, other than your lecture notes, is strictly prohibited and will lead to a lot of paperwork and unwanted time with the Associate Dean Academic. (e.g. no sharing of lab assignments, graphs, essays.)**

## COURSE EVALUATION

- *Laboratory Exercises.* There are five laboratory sections that meet most weeks, from week 2 to week 9. Stay tuned to CourseLink for details. **All labs must be submitted as PDF files.** If this is a problem you must make *prior* arrangement with me or your lab instructor. **There is a \$10 lab fee to cover costs.**
- *Field Trip.* There is a **required** field trip, most likely on a Saturday near the end of the semester. It is rain or shine, barring lightning, tornadoes, or freakish snow.

- There will be an in-class *Midterm Examination* (February 28<sup>th</sup>) and a *Final Examination* (Saturday, April 20<sup>th</sup>, 11:30AM – 1:30PM, Location TBA). Both exams consist mainly of multiple choice questions, and a few carefully selected short answer questions.

## GRADING

Laboratory Exercises	30 %
Field Trip Report	10 %
Mid-term Examination	25 %
Final Examination	35 %

All assignments must be submitted through Dropbox on Courselink. Late assignments (without prior approval) will be penalized at a rate of 10 percent of the value of the assignment per day. This course uses Turnitin to help encourage academic integrity.

## COMMUNICATION

This course uses ~~WebCT Blackboard D2L~~ CourseLink as the primary tool for communication and distribution of course material.

All email correspondence will be sent to your University of Guelph email address. I normally respond to student inquiries during my office hours. I do not normally reply to messages from off-campus email addresses. Only messages and postings that are appropriately professional will be responded to. For example, I ignore emails that begin “Hey,” or that include texting lingo; I’m too old for that.

## University of Guelph Policy Statements (aka “The Fine Print”):

### E-mail Communication

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

### 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.](#)

### Drop Date

I assume the last day of classes?

### 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.

### 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 book their exams at least 7 days in advance, and not later than the 40th Class Day.

More information: [www.uoguelph.ca/sas](http://www.uoguelph.ca/sas)

### **Academic Misconduct**

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 is detailed in the Undergraduate Calendar.](#)

### **Recording of Materials**

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

### **Resources**

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

<b>Date</b>	<b>Topic</b>	<b>Text.</b>	<b>Lab</b>
08-Jan-24	Intro	1	No Labs this week
10-Jan-24	Lat / Long, UTM, GPS	2	
12-Jan-24	Earth-Sun geometry and seasons	3	
15-Jan-24	Global energy patterns	4	Map Interpretation
17-Jan-24	Global temperature patterns	5	
19-Jan-24	Pressure wind and circulation	6	
22-Jan-24	Pressure wind and circulation	6	No Labs this week
24-Jan-24	Moisture and precipitation	7	
26-Jan-24	Weather Systems	8	
29-Jan-24	Weather Systems	8	Weather & Climate
31-Jan-24	Global climate change	9	
02-Feb-24	Global climate change	9	
05-Feb-24	Plant Geography	10	No Labs this week
07-Feb-24	Plant Geography	10	
09-Feb-24	Soils	11	
12-Feb-24	Soils	11	Plants & Soils
14-Feb-24	The rock cycle and geologic time	12	
16-Feb-24	The rock cycle and geologic time	12	
26-Feb-24	Plate tectonics and landforms	13	No Labs this week
28-Feb-24	<b>MIDTERM</b>	--	
01-Mar-24	Weathering and mass movement	14	
04-Mar-24	Weathering and mass movement	14	Hillslope Processes
06-Mar-24	Groundwater and karst landscapes	15	
08-Mar-24	Groundwater and karst landscapes	15	
11-Mar-24	Fluvial systems and landforms	16	Fluvial Processes
13-Mar-24	Fluvial systems and landforms	16	
15-Mar-24	Glacial processes and landforms	17	
18-Mar-24	Glacial processes and landforms	17	Field Trips?
20-Mar-24	Glacial processes and landforms	17	
22-Mar-24	Periglacial processes and landforms	17	
25-Mar-24	Arid landscapes and aeolian processes	18	Field Trips?
27-Mar-24	Arid landscapes and aeolian processes	18	
29-Mar-24	Coastal processes and landforms	19	
01-Apr-24	Coastal processes and landforms	19	No Labs this week
03-Apr-24	Geography and environmental issues	20	
05-Apr-24	Review Class - Q&A	--	
20-Apr-24	Final Exam 11:30 - 1:30,		Room TBA