Instructor: Dr. Abigail D'Ambrosia Carroll
Email: arc234@pitt.edu
Office: SRCC 316
Office Hours: Thurs & Fri, 11am-12pm *(or by appt)*

Lecture Time: MWF 2-2:50pm
Lecture Location: Thaw 203
Lab Time & Location: T 3:00-4:50pm, Thaw 203
Lab TA: Fan Gao, fag35@pitt.edu

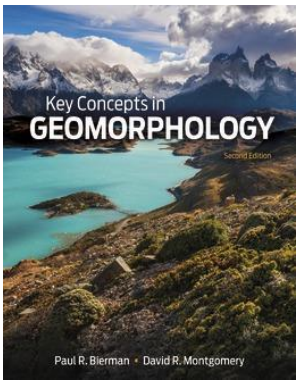
COURSE DESCRIPTION

This course serves as an introduction to the physical forces shaping planetary surfaces (chemical processes are well-covered in other parts of the curriculum and not emphasized here for the sake of time). The course will emphasize both theoretical and practical aspects of geomorphology. Whenever possible, class examples and problems will focus on regionally important facets of geomorphology, ranging from landslides to stream restoration to glacial and periglacial terrain.

LEARNING GOALS

1. Identify landforms from analysis of topographic maps and aerial photography.
2. Interpret landscape evolution as a function of time, space, and process.
3. Be able to use landform analysis to develop hypotheses about the past climates of an area.
4. Use GIS software to visualize and analyze landforms, and learn to identify areas of potential hazards through geospatial analysis tools.
5. Through all of this, apply the basic physical and chemical equations that govern earth surface processes, while also recognizing the confounding effects of biological agents (including humans).

REQUIRED TEXT



***Key Concepts in Geomorphology*, 2nd ed., by Bierman & Montgomery (2020)**
W. H. Freeman Publishing Company
ISBN: 9781319059804

Additional Materials: I will frequently assign additional readings, and provide them in advance on Canvas. You will be responsible for the content, as many such assignments will form the basis of your abstract assignments, or other follow-up class activities.

ASSIGNMENTS & GRADING POLICIES

Perusall Assignments (15% of final grade). *Perusall* is a social reading platform where you can make comments directly on the same document that your classmates can see and respond to. It is available in the navigation menu on our Canvas course page. By each deadline (see schedule), every student is expected to thoroughly read the material, add comments or questions, respond to a classmates' post, and be ready to discuss the material in class the following day. I will aim to post reading materials 5-7 days in advance.

Learning Artifacts (12% of final grade). Throughout the semester I will assign various graded in-class activities, pre- or post-activity homework assignments, and an occasional problem set. *At the end of the semester, I will drop your lowest 'Learning Artifacts' grade.*

Labs (25% of final grade). Lab attendance is mandatory, and lab exercises are assigned each week. Most are designed to be completed in the allotted lab time, but you have until the beginning of the next lab to submit.

Exams. There are three exams in this course, **each exam is 16% of your final grade**. See course schedule for exam dates.

Make-Up Policy

Exam and lab attendance is required. If you have a compelling issue (i.e., medical, family emergency) that causes you to miss an exam or a lab, you must notify me as soon as possible, otherwise you will receive a *zero* grade. Do not wait weeks or months, or until the end of the semester to discuss late or missing work with me. ***Note on attendance:*** **Many activities (such as the in-class ones) cannot be made up.**

Gradescope for homework and lab submission

In this course, your TA and I will be using Gradescope (as a plug-in tool within Canvas) to grade and more efficiently and fairly provide feedback on assignments. You will use Gradescope to *(1)* submit work online, and *(2)* view feedback and scores on graded work. To access Gradescope, simply log on to our course's Canvas site and click on 'Gradescope' in the left navigation menu. Feel free to check out this website to learn more about how to use Gradescope, including how to scan assignments via iOS and Android devices. *Some tips for Gradescope success:*

- A key step in submitting your work to Gradescope is getting a high-quality scan (i.e., digitized version) of your work. Be sure to take the following important policies and procedures into account whenever you are submitting work to Gradescope…
- If you are writing your assignment by hand (on paper), be sure to use a dark pencil or pen, and write clearly!
- When you upload your work to Gradescope, be sure to (1) indicate where each question is located within your submission via the click-and-select interface, and (2) after you submit, review each page of your uploaded submission to make sure everything is clear and legible.
- **Give yourself some extra time to prepare and submit your assignment** online to Gradescope, especially for the first few assignments when you are still getting familiar with it.

IMPORTANT NOTES

Expectations

You have the right to be treated with respect by me and your classmates, and an obligation to respect others. I expect you to do your part to maintain a class environment of respect and civility. This includes being on time, arriving prepared, and actively participating in class activities and discussions. I also expect you to **refrain from smartphone use, non-class computer use**, or other distracting behaviors. **If you must use a laptop during lecture, I ask that you sit towards the back of the classroom or along the perimeters.** This limits any distractions for your peers who are not using laptops.

My teaching approaches

I tend to teach with a mix of techniques. Sometimes I'll give a traditional lecture, sometimes we'll be discussing a scientific paper together, or sometimes I'll experiment with an interesting new active learning strategy (like a gallery walk or jig-saw project). On occasion, I might even ask you to give a lecture! The point is, I like to switch it up a lot. My hope is that this style of teaching keeps the classroom experience from getting stale and keeps you energized and excited to show up and learn.

Tips on how to succeed in this course:

- **Check Canvas and your email daily** for readings and other assignments and reminders.
- **Active participation** is absolutely necessary in order to do well in this course. Take notes, ask questions, and engage with your instructor and classmates!
- **Paying attention and taking good notes** will serve you well. In addition, my lecture slides serve as an excellent study guide when preparing for exams.
- **Keeping up with the assigned text reading material is not only key** to fully absorbing the topics we discuss in the classroom, but it is required for many of the classroom discussions and activities. I strongly encourage you to read assigned textbook sections/chapters *before* lecture.
- I encourage students to form study groups that meet regularly. Going over course material with your peers is often the best way to digest and master new ideas.

ACCESSIBILITY

I am committed to providing a fair, accessible learning environment for all. If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

ACADEMIC INTEGRITY POLICY

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators. *Anyone caught plagiarizing material will automatically fail the course.*

To learn more about Academic Integrity, visit the Academic Integrity Guide for an overview of the topic. For hands- on practice, complete the Academic Integrity Modules.

Note on Generative AI

Intellectual integrity is vital to an academic community and for my fair evaluation of your work. **All work completed and/or submitted in this course must be your own**, completed in accordance with the University's Guidelines on Academic Integrity. You may not engage in unauthorized collaboration or make use of ChatGPT or any other generative AI applications at any time UNLESS EXPLICITLY STATED BY YOUR INSTRUCTOR, IN WRITING. Any use outside of this permission constitutes a violation of Pitt's Guidelines on Academic Integrity.

STATEMENT ON DIVERSITY

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status,

familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, visit the Civil Rights & Title IX Compliance web page.

I require that everyone who steps into my classroom behave in a manner that ensures all members of this class can learn in a supportive and respectful environment. By attending class, you agree to adhere to that standard. If at any point you feel this standard is not being met, please reach out to me to discuss the issue. Please know that if you choose to report a Title IX issue to me (or any other faculty/staff member) I am required to communicate this to the University's Office of Diversity and Inclusion. Alternatively, you may contact the Pitt Title IX office directly (412-648-7860, titleixcoordinator@pitt.edu) or file a report online. If you wish to maintain complete confidentiality, you may contact the University Counseling Center (412-648-7930).

EMAIL COMMUNICATION POLICY

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to university communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (e.g., Google, Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their university e-mail address. To forward e-mail sent to your university account, go to http://accounts.pitt.edu, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished. (For the full e-mail Communication Policy, go to www.bc.pitt.edu/policies/policy/09/09-10-01.html).

SCHEDULE OF TOPICS, READINGS, & LABS

SUBJECT TO CHANGE. Any changes will be announced during class and in Canvas.

NOTE: Lecture-related activities & homework assignments are not accounted for here. *Perusall* assignments typically include a follow-up discussion during the following lecture.

Week	Day	Date	Topic	Chapter Readings	Perusalls	Labs
1	M	25-Aug	Course Structure, Plans, Overview; An Earth Systems approach	1		*No Lab*
	W	27-Aug				
	F	29-Aug				
2	**M**	**1-Sep**	**Labor Day on Monday - NO CLASS;** Unifying Concepts	1	*Perusall 1 due by 2pm, Wednesday 3-Sep*	*No Lab - Labor Day*
	W	3-Sep				
	F	5-Sep				
3	M	8-Sep	Analytical Geomorph	3		Lab 1: Geomorph Observation
	W	10-Sep				
	F	12-Sep				
4	M	15-Sep	Weathering: Physical	5	*Perusall 2 due by 2pm, Monday 15-Sep*	Lab 2: Rocks, Weathering, & Erosional Landscapes
	W	17-Sep				
	F	19-Sep				
5	M	21-Sep	Weathering: Chemical; ***EXAM 1 ON FRIDAY***	5		*No Lab - Exam Week*
	W	24-Sep				
	F	**26-Sep**				
6	M	29-Sep	Soils; Intro to Hydrology	6, 4	*Perusall 3 due by 2pm, Mon 29-Sep*	Lab 3: Soils
	W	1-Oct				
	F	3-Oct				
7	M	6-Oct	Hydrology: Groundwater, surface water; **Fall Break on Friday - NO CLASS**	4		Lab 4: Flood Risk Assessment
	W	8-Oct				
	F	**12-Oct**				
8	M	13-Oct	Hillslopes	7	*Perusall 4 due by 2pm, Monday 13-Oct*	Lab 5: Slope Failure with ArcGIS Pro
	W	15-Oct				
	F	17-Oct				
9	M	20-Oct	Fluvial Processes & Landscapes	8		Lab 6: Slope Failure continued
	W	22-Oct				
	F	24-Oct				
10	M	27-Oct	Fluvial wrap-up; ***EXAM 2 ON FRIDAY***	8, 9	*Perusall 5 due by 2pm, Monday 27-Oct*	*No Lab - Exam Week*
	W	29-Oct				
	F	**31-Oct**				
11	M	3-Nov	Fans & Deltas; Coastal Processes & Landforms	9, 10		Lab 7: Delta Progradation
	W	5-Nov				
	F	7-Nov				
12	M	10-Nov	Coastal Processes & Landforms; Glacial Processesses & Landscapes	10, 13	*Perusall 6 due by 2pm, Monday 10-Nov*	Lab 8: Coastal Processes
	W	12-Nov				
	F	14-Nov				
13	M	17-Nov	Glacial Processes & Landscapes	13		Lab 9: *TBD*
	W	19-Nov				
	F	21-Nov				
14	**M**	**24-Nov**	**THANKSGIVING BREAK - NO CLASSES**	--	--	*No Lab - Thanksgiving Break*
	W	**25-Nov**				
	F	**27-Nov**				
15	M	1-Dec	Geomorphology & Climate	14	*Perusall 7 due by 2pm, Wednesday 3-Dec*	Lab 10: *TBD*
	W	3-Dec				
	F	5-Dec				
16	**M**	**8-Dec**	**FINALS WEEK - *FINAL EXAM DAY/TIME TBA***	--	--	--
	W	**10-Dec**				
	F	**12-Dec**				