

GEOL 333 – Principles of Geomorphology, Spring 2023, Section 1001, TuTh 4:00 – 5:15 PM, HOS 281

Faculty:

Instructor: Dr. Jeremy Koonce (pronouns: he/him/his)

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Student Office Hours: If you have questions, I invite you to visit me in my office located in Lilly Fong Geoscience (LFG) 118, during office hours. Days and times set aside specifically for your questions are Monday 2:00 – 3:00 PM and Thursday 10:00 – 11:00 AM. You are welcome to contact me outside of class and office hours, as I am available by appointment and email.

General Information:

Course format: Lecture twice a week; Laboratory once a week

Textbook: Key Concepts in Geomorphology by Bierman and Montgomery, 2nd edition

Prerequisites: A minimum of a C in one of GEOL 100 or GEOL 101 or GEOG 103

Learning Outcomes:

The objective of this course is for students to understand and be able to discuss the origin and morphology of landforms in diverse environments, including the ability to recognize landforms on photographs, aerial stereo photographs, and topographic maps. Lecture material will be supplemented with laboratory exercises and analysis of aerial photographs and topographic maps.

After successfully completing this course, students will have demonstrated proficiency in the following learning outcomes: 1) A competent level of ability to read, interpret, and make topographic maps, and understand coordinate systems and scale; 2) A competent level of ability to read and interpret aerial photographs; 3) Apply knowledge of physical and chemical weathering processes to interpret landforms; 4) Understand the concepts of dynamic equilibrium in geomorphology; 5) Identify intrinsic and extrinsic thresholds in geomorphic systems; 6) Identify common landforms visually, on topographic maps, and on aerial photographs; 7) Discuss the role of tectonics, time, and climate on geomorphology; 8) Comprehend and recall an in-depth vocabulary of geomorphic terms; 9) Apply critical thinking skills to solve Earth surface problems; 10) Understand the concept of recurrence intervals in climate and geomorphology; and 11) Link geomorphic processes to landforms.

Grading Policies:

- If you miss three or more lab sessions, or fail to turn in three or more lab assignments, or some combination of the two, you will receive a score of 0% in the lab.
- Required reading means that the instructor may test on that material even if it has not been covered in lecture.
- No extra credit will be given.

Grade Calculation:

Each student's final grade will be calculated according to the following schedule. The calculated total will be rounded to the nearest integer number.

Exam 1	25%
Exam 2	25%
Comprehensive final exam	25%
Laboratory	25%
Total %	100%

Grade Assignment:

Final grades will be assigned according to the following schedule. The instructor may also elect to curve the final grades in the students favor.

<u>Grade</u>	<u>Total %</u>	<u>Grade</u>	<u>Total %</u>
A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	0-59

Lecture Exams:

- Exam 1: Feb. 23, covers: Chapters 1-7
- Exam 2: Apr. 6, covers: Chapters 8, 9, 11, 12, and readings on Karst
- Final Exam: TBA, covers: Cumulative with emphasis on Chapters 10, 13, 15, 16

How to Succeed in GEOL 333:

Everyone can succeed in this course by following these guidelines:

1. It is expected that you will be spending 2-3 hours outside of class for each credit hour you are taking. This class is 4 credits, so you should expect to spend a minimum of 8 hours per week on studying. College truly is a full-time job.
2. Come to class and laboratory on time, every time. I will take attendance. If you miss a class, or get sick, please talk to me as soon as possible so that we can make a plan to help you catch up. If you miss laboratory, please talk to your TA as soon as possible. It is easy to fall behind, so get in the habit of reading the assigned reading prior to class so that you are prepared to participate in each class session.
3. Listen, take notes, and participate in class. I also suggest rewriting your notes after class. You can verify your handwritten notes from those posted onto WebCampus.
4. Do not use your phone, tablet, or laptop in class other than for class related material (e.g., notetaking, Kahoot exercises, etc.).

5. Ask questions if you do not understand something or if you need clarification. If it is intimidating and/or difficult for you to ask questions in class, do not hesitate to visit office hours and/or email me.
6. Check your RebelMail and WebCampus at least once per day.

Class Schedule

Weekly schedule showing topics for lecture and laboratory, plus required reading assignments from the class textbook. The listed date is the start of each week (Monday).

Week 1 (Jan. 16)

Lecture 1: Introduction, Mapping
Lecture 2: Earth's Dynamic Surface
Reading: Chapter 1

Week 2 (Jan. 23)

Lecture 1: Geomorphology History, Toolkit
Lecture 2: Hydrology
Reading: Chapters 2-4

Week 3 (Jan. 30)

Lecture 1: Hydrology
Lecture 2: Weathering
Reading: Chapters 4-5

Week 4 (Feb. 6)

Lecture 1: Weathering
Lecture 2: Weathering, Soils
Reading: Chapters 5-6

Week 5 (Feb. 13)

Lecture 1: Hillslopes
Lecture 2: Hillslopes
Reading: Chapter 7

Week 6 (Feb. 20)

Lecture 1: Hillslopes, Review
Lecture 2: Exam 1
Reading: Chapter 7

Week 7 (Feb. 27)

Lecture 1: Drainage Basins
Lecture 2: Drainage Basins
Reading: Chapter 9

Week 8 (Mar. 6)

Lecture 1: Channels
Lecture 2: Channels
Reading: Chapter 8

Spring Break (Mar. 13)

Week 9 (Mar. 20)

Lecture 1: Wind
Lecture 2: Wind
Reading: Chapter 11

Week 10 (Mar. 27)

Lecture 1: Karst
Lecture 2: Karst
Reading: Handouts

Week 11 (Apr. 3)

Lecture 1: Volcanoes, Review
Lecture 2: Exam 2
Reading: Chapter 12

Week 12 (Apr. 10)

Lecture 1: Glaciers
Lecture 2: Glaciers
Reading: Chapter 13

Week 13 (Apr. 17)

Lecture 1: Glaciers
Lecture 2: Coastal
Reading: Chapters 13, 10

Week 14 (Apr. 24)

Lecture 1: Coastal
Lecture 2: Tectonics
Reading: Chapters 10, 15

Week 15 (May 1)
Lecture 1: Tectonics
Lecture 2: Climate, Review
Reading: Chapters 15, 16

Week 16 (May 8)
FINAL EXAM TBD

UNLV Academic Policies

Students taking this course are required to be familiar with the UNLV academic policies. [Read the current UNLV Academic Policies.](#)

GEOL 333 Policies

Office Hours

My office hours (see above) are times that I have set aside to answer student questions in person. Please feel free to stop by and knock on my door during those times. I will be happy to answer your questions to the best of my ability. If my scheduled office hours are not convenient for you, please email me and schedule an appointment at an alternate time.

Attendance

It is important to attend class because I will cover a lot of material, answer questions, and provide guidance on exams. Students who miss class are responsible for the material that was presented. It is often helpful to request notes from a classmate. You may be removed from the class if you have more than five unexcused absences.

Missed Work

Exams, quizzes, assignments, and labs missed due to absence will receive a grade of zero unless the instructor is provided with advance notification of an exception for a religious holiday or university-sponsored extracurricular activity as specified in the University Catalog. In the case of an excused absence, the nature and format of the make-up work will be at the instructors' discretion. The final exam is required for all students.

Participation

Students in this class will have different backgrounds and levels of educational training and you may find some material difficult, feel that you are already familiar with some concepts, or have personal experiences that can inform us all. Whatever your situation, please share your position with us through class participation. If you are confused about a concept, please ask questions in class for clarification and further explanation. You will not be alone in your confusion. There are many ways to present this material, and I will attempt to find one that works for you.

Laboratory

All GEOL 333 students are required to enroll in a laboratory section.

Field Trip

Students will be required to participate in two field trips. One will be an all-day Friday or Saturday field trip to the Valley of Fire (February), while the other will be an all-day Friday or Saturday field trip (March or April). Details on the field trips will be announced later.

Administrative Drops/Classroom Conduct

All students are required to be familiar with university policies and procedures in the current UNLV Undergraduate Catalog. Importantly, we follow the policies on Administrative Drops/Classroom Conduct as stated in the most recent UNLV Undergraduate Catalog. Any student that does not comply with these requirements, and conducts themselves in a manner that is disruptive and interferes with the right of other students to learn, or of the instructor to teach will be administratively dropped from the course.

Recording Lectures and Non-enrolled Guests

Absolutely no electronic recording or posting of lectures or other materials (including all WebCampus materials) will be allowed without my prior approval. Students are not allowed to bring guests, including children to either lecture or laboratory.

Academic Misconduct

This course operates under a "zero tolerance" policy. Any student who commits cheating or plagiarism will receive a grade of F for the class.

Changes to the Syllabus

The course schedule is tentative, minor adjustments may be made during the course of the semester. The instructor also reserves the right to change topics to reflect world events. Students will be provided with an updated syllabus if significant changes are necessary.