

## GEOL 485/685 – Engineering Geology, Fall 2022

### Faculty:

Instructor: Dr. Michael Nicholl

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Office Hours: Tuesday 2:00 - 3:00 PM, Wednesday 2:30 to 3:30 PM and by appointment

### General Information:

Course format: Lecture twice a week, Tu-Th 5:30-6:45 PM, 1-3 practical sessions TBD

Location: CBC C235

Prerequisites: GEOL 333

No required textbook. Reading assignments will be online or handouts.

### Learning Outcomes:

After successfully completing this course, students will be able to: 1) explain the scope of responsibilities for an Engineering Geologist and differentiate them from those of a Geological Engineer; 2) clearly state the ethical responsibilities of an Engineering Geologist; 3) estimate the basic engineering properties of rocks (density, porosity, permeability, unconfined compressive strength, elastic modulus) and explain how they are used in engineering calculations; 4) differentiate between rock properties and rock mass properties; 5) employ stereographic analysis to estimate the stability of rock slopes; 6) explain soil strength and how it relates to slope stability analysis; and 7) plan a site investigation suitable for engineering design.

### Grade Calculation:

Each student's final grade will be calculated as follows:

Three lecture exams (20% each)	60%
Homework assignments	40%

### Grading policies:

- Required reading means that you are responsible for knowing the assigned material even if it has not been covered in lecture.
- Assignments and exams for GEOL 685 may differ from those for GEOL 485 and be more extensive.
- Late assignments will not be accepted without prior arrangement.
- No extra credit will be given.

### Exam Dates

Exam 1: Tuesday 10/4/22

Exam 2: Tuesday 11/8/22

Final Exam: as specified in the UNLV Final Exam Schedule

## Grade Assignment:

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

Grade	Weighted Average
A-minus to A	90 to 100
B-minus to B-plus	80 to 89
C-minus to C-plus	70 to 79
D-minus to D-plus	60 to 69
F	Below 60

## Class Policies

### UNLV Academic Policies

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

### Participation

Please ask questions if you are confused about any of the material presented in this course. If you do not feel comfortable asking questions in class, please contact me by email or visit during my office hours.

### Attendance

You are responsible for all material covered in lecture no matter what causes your absence. If you miss a lecture, get the notes from a classmate.

### Missed assessments

Exams, quizzes, assignments, and labs missed due to absence will receive a grade of zero except for the specific circumstances described in the current UNLV Academic Policies. In the case of an excused absence, the nature and format of the make-up work will be at the instructors' discretion.

### Assignments

Students will be required to submit a number of assignments over the course of the semester. The nature of the assignments will vary, but will likely include: problem sets, geologic interpretation, and critical review of published work.

### 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 Syllabus

Adjustments to the schedule may be made in accordance with the rate of progress in the classroom. Students will be provided with an updated syllabus if significant changes are necessary.