

GEOL 3010 Environmental Geology
TuTh 11:10am-12:30pm
ENV120
Fall 2026

Instructor: Dr. Feifei Pan

Office: ENV 210E

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Office hours: TTH 9:00 AM- 10:00 AM or by appointment

Class Website: All lecture slides and announcements will be posted at the UNT Canvas.

Course Description:

Environmental geology is applied geology and focuses on applying geologic information to solve conflicts in land use, to minimize environmental degradation, and to maximize the beneficial results of using natural and modified environments. The application of geology to these problems includes the study of the following five subjects: 1) earth materials (e.g., minerals, rocks, and soils); 2) natural hazards (e.g., flood, hurricanes, tornadoes, landslides, earthquakes, and volcanic activity); 3) land for site selection, land-use planning; 4) hydrologic processes of groundwater and surface water, water resources and water pollution problems; and 5) geologic processes.

Recommended eText:

Environmental Geology, 5th Edition, by Jim Reichard, 2023. ISBN10: 1266624759, McGraw Hill. <https://www.mheducation.com/highered/product/environmental-geology-reichard/M9781264648016.html>

Grade: Homework assignments and four exams count 90% of the grade. Attendance to the in-person classes is required and checked, and worth 10% of the grade. Absences can be excused if the excuse notes are emailed to me ahead of time. To encourage student participation, students will obtain one point if they answer one question correctly in class. One point is equal to 0.1 actual extra points that will be added to the students' final overall grades.

One online homework assignment for each chapter will be posted at Canvas after the chapter is studied, and each online homework is due on the specified date indicated at Canvas. Homework turned in up to 1 week late will lose 25% credit, up to 2 weeks will lose 50% credit and after 3 weeks will receive no credit.

The final exam will not be comprehensive. All exams will be closed-book and closed-notes tests and have four types of questions: multiple-choice, True/False, fill in the blank, and short answer questions. All students must take the final exam.

Weights for all assessments are given as follows: **Homework =12%, Exam 1 = 15%, Exam 2 = 18%, Exam 3 = 20%, Final Exam = 25%, Attendance = 10%**. Course grades will be assigned according to this scale: A=90-100, B=80-89, C=70-79, D=60-69, F: < 60. A curve might be applied if the class average is lower than expected. All grades for the course will be final. No assignments or work will be considered after the final grade has been recorded.

Additional Information:

Makeup exams will be given only with type written request and supporting documentation, otherwise a "0" will be assigned. Inform me of your absence before or within 48 hours after the examination date by e-mail. I will need specific, written documentation to verify the nature and legitimacy of your absence.

Policy on incomplete:

An incomplete will be given only in the case of: (1) the student is passing the course; (2) has justifiable reason why work cannot be completed; (3) arranges to complete all work within one year of the ending date of the course in which the student was enrolled.

Academic Misconduct:

Students caught cheating or plagiarizing will receive a "0" for that particular assignment or exam. Additionally, the incident will be reported to the Office of Student Rights and Responsibilities for further penalty. According to the UNT catalog, the term "cheating" includes, but is not limited to: (a) use of any unauthorized assistance in taking quizzes, tests, or examinations; (b) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (c) the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university; or (d) any other act designed to give a student an unfair advantage. Altering a returned test and claiming a grader or scanning machine made an error is also considered cheating. The term "plagiarism" includes, but is not limited to: (a) the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and (b) the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

ODA:

The Department of Geography, in cooperation with the Office of Disability Accommodations, complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodations request before the 12th class day.

SPOT:

The Student Perceptions of Teaching (SPOT) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SPOT to be an important part of your participation in this class. To increase the participation rate of the SPOT, every student who completes a SPOT and forwards the confirmation email of the completion of the SPOT evaluation to Feifei.Pan@unt.edu will receive one actual extra point toward their final overall grade.

CLASS SCHEDULE

DATE	TOPIC(s)	Reading Assignments
Aug. 17 - Sep. 10	Ch.1 Humans and the Geologic Environment Ch.2 Earth from a Larger Perspective Ch.3 Earth Materials Exam 1 on Sep. 10 (covering parts of Ch.1-Ch.3)	eText: 1-3
Sep. 15 - Oct. 1	Ch.4 Earth's Structure and Plate Tectonics Ch.5 Earthquakes and Related Hazards Ch.6 Volcanoes and Related Hazards Exam 2 on Oct. 1 (covering parts of Ch.4-Ch.6)	eText: 4-6
Oct. 6 - Oct. 29	Ch.7 Mass Wasting and Related Hazards Ch.8 Streams and Flooding Ch.9 Coastal Hazards Exam 3 on Oct. 29 (covering parts of Ch.7-Ch.9)	eText: 7-9
Nov. 3 - Dec. 8	Ch.10 Soil Resources Ch.11 Water Resources Ch.12 Mineral and Rock Resources Ch.13 Conventional Fossil Fuel Resources Final Exam on Dec. 8, 10:30am-12:30pm (covering parts of Ch.10 -Ch.13)	eText:10-13

This syllabus is definitely subject to change at anytime during the semester. Check the class website at Canvas and your UNT email frequently for changes that may occur due to weather, or other unforeseen events.