GEOMORPHOLOGY
Geography 4350 Spring 2026, T, R 11-12.20, EESAT 345
Course Outline

Instructor: Dr. Harry Williams
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Course Description:
Geomorphology is the study of landforms and processes that created them. The course is organized around four major controls on landscape development: large scale geologic structures; lithology; erosional and depositional processes; influence of past events. The regional focus is North Texas where landscapes are primarily the result of contrasting rock types and stream erosion and deposition. The final two lectures cover a selection of applied geomorphology topics that explore interactions between people and the physical environment. Ten lab exercises complement lectures by web-based exploration, map analyses, statistical analyses and field trips.

Prerequisites:
GEOG 1710 or GEOG 2180 or GEOL 1610 or consent of instructor.

Course Grade:

Your grade will be based on the following breakdown:

Exams (4)	40% (10% each)
Lab exercises (10)	40% (4% each)
Field Trip	10%
Term Project:	10%

Late penalty: 10% per day up to 4 days and then late penalty is capped at 40%. Contact me ASAP if you will miss a deadline.

Course Text Book: None, instead readings (mainly journal articles) will be assigned throughout the semester.

DEPARTMENTAL POLICIES:

DISABILITY ACCOMMODATION
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 accommodation request by the second class.

EXTRA CREDIT
The Department of Geography does not allow extra credit assignments (work not specified on a course syllabus).

ACADEMIC DISHONESTY
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; (d) dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or (e) 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 academic materials.

CLASSROOM COURTESY
Please follow these guidelines to avoid disrupting the class:

(1) Turn off cell phones before arriving.
(2) Do not arrive late or leave early (except for a bathroom break or emergency).
(3) Do not sleep or eat during class.
(4) Do not work on other assignments during class.
(5) Do not talk when the instructor is lecturing, unless prompted for feedback by the instructor.

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Geography 4350 – Spring 2026
Lecture, Lab & Exam Schedule

DATE	**TOPICS**
Jan 13	Introduction; getting organized; Q&A
	PART I. STRUCTURES - THE RESISTIVE FRAMEWORK
15	Global geomorphology – orogenesis, tectonic structures of North America
20	**Lab 1: Tectonic structures of Texas (EESAT 336)**
22	Diastrophism - Folded, faulted and tilted strata
27	Diastrophism - Landforms related to structures
29	**Lab 2: Landforms and geologic structures**
Feb 3	Volcanic structures – igneous rocks as geologic components
5	**EXAM I**
	PART II. MATERIALS - THE RESISTIVE ELEMENTS
10	Strength of rock and soil - soils on slopes
12	Strength of rock and soil - strength of rock
	PART III. PROCESSES - AGENTS OF ENERGY EXPENDITURE
17	Gravity - slope processes and landforms
19	**Lab 3: Landslides**
24	Gravity - hydrologic cycle and hill slopes
26	Water I: stream networks
March 3	**Lab 4: Streams in Denton (mini field trip)**
5	**EXAM 2**
9-15	**SPRING BREAK**
17	Water II: stream erosion
19	**Lab 5: North Texas stream networks**
24	Water III: river valleys and floodplains
26	**Lab 6: North Texas floodplains**
28	**Field Trip to Dallas County, Saturday 28th March**
31	**Lab 7: Hydrological Effects of Urbanization: White Rock Creek (EESAT 336)**
April 2	**Lab 8: Woodbine sandstone outliers in Denton (mini field trip)**
7	**Lab 9: Flood control in Denton (mini field trip)**
9	**EXAM 3**
14	Waves - coastal processes and landforms
16	**Lab 10: Coastal marsh sedimentation on the Trinity River estuary (EESAT 336)**
	PART IV. LEGACY OF THE QUATERNARY
21	Glacial Landforms
	PART V. APPLIED GEOMORPHOLOGY
23	Lake sedimentation in Texas
28	Coastal erosion in Texas
30	Review (optional). Project due in class.
?	**FINAL EXAM**.