

GEOMORPHOLOGY
Geography 4350/5350 – Spring 2025
Lecture, Lab & Exam Schedule

DATE	TOPICS
Jan 14	Introduction; getting organized; Q&A
	PART I. STRUCTURES - THE RESISTIVE FRAMEWORK
16	Global geomorphology – orogenesis, tectonic structures of North America
21	Lab 1: Tectonic structures of Texas (EESAT 340)
23	Diastrophism - Folded, faulted and tilted strata
28	Diastrophism - Landforms related to structures
30	Lab 2: Landforms and geologic structures
Feb 4	Volcanic structures – igneous rocks as geologic components
6	EXAM I
	PART II. MATERIALS - THE RESISTIVE ELEMENTS
11	Strength of rock and soil - soils on slopes
13	Strength of rock and soil - strength of rock
	PART III. PROCESSES - AGENTS OF ENERGY EXPENDITURE
18	Gravity - slope processes and landforms
20	Lab 3: Landslides
25	Gravity - hydrologic cycle and hill slopes
27	Water I: stream networks
March 4	Lab 4: Streams in Denton (mini field trip)
6	EXAM 2
10-16	SPRING BREAK
18	Water II: stream erosion
20	Lab 5: North Texas stream networks
25	Review lecture “Water III: river valleys and floodplains*” before coming to class. In class we will do “Lab 6: North Texas floodplains”
27	No class
29	Field Trip to Dallas County
April 1	Lab 7: Hydrological Effects of Urbanization: White Rock Creek (EESAT 340)
3	Lab 8: Woodbine sandstone outliers in Denton (mini field trip)
8	Lab 9: Flood control in Denton (mini field trip)
10	EXAM 3
15	Waves - coastal processes and landforms
17	Lab 10: Coastal marsh sedimentation on the Trinity River estuary (EESAT 340)
	PART IV. LEGACY OF THE QUATERNARY
22	Glacial Landforms
	PART V. APPLIED GEOMORPHOLOGY
24	Lake sedimentation in Texas
29	Coastal erosion in Texas
May 1	Review (optional). Project due in class.
6	FINAL EXAM. Tuesday May 6, 10am – 12 pm.

*be sure to cover channel, bluff, floodplain, terrace, valley, interfluvium, alluvium, bedrock, oxbow lake.