

Geology 350  
 Andre Lehre  
 Office hrs: Tu Th 3, W 8-11  
 and by arrangement

Spring 2008  
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### GEOLOGY 350 SYLLABUS

All readings refer to the pages in Easterbrook: Surface Processes and Landforms

**Geology 350 website:** <http://www.humboldt.edu/~geology/courses/geology350>

When requested on the site use: **name:** geodept **password:** students

DAY	TOPICS	READING
22-Jan	Time and scale; energy sources and landform development; isostasy	7 - 12
24	Tectonic landforms: igneous activity and faulting	216 - 222, 240 - 291
24	<b>LAB 1:</b> Recognizing and mapping normal faults and volcanic centers	
29	Structural effects on landform development	223 - 239
31	Lithologic controls of landforms	
31	<b>LAB 2:</b> Geologic structure from topographic maps, Part 1	
5-Feb	Rates of deformation and erosion	
7	Processes of physical weathering	13 - 22
7	<b>LAB 2:</b> Geologic structure from topographic maps, Part 2	
12	Processes of chemical weathering; clays	22 - 45
14	Soils and soil development	45 - 50
14	<b>LAB 3:</b> Constructing a geologic map from a topographic map	
19	Strength and rheology of rock and soil	57 - 63
21	Landslide types and causes	64 - 91
21	<b>LAB 4:</b> FIELD TRIP to Trinidad area: thrust faults, soils, terraces	
26	Creep and solifluction	65 - 68
28	Infiltration, runoff generation, and erosion	
28	<b>LAB 5:</b> Recognition of landslides on maps and aerial photos	
4-Mar	Hillslope erosion, groundwater	185 - 191
6	Groundwater; karst processes and landforms	191 - 211
6	<b>LAB 6:</b> FIELD TRIP to Blue Lake area: landslide description/analysis	
11	Drainage basin morphometry and development	144 - 155
13	River hydraulics and sediment transport	97 - 122
13	<b>MIDTERM</b> (through groundwater) during lab time	
18	<b>SPRING BREAK</b>	
20	<b>SPRING BREAK</b>	
25	Channel geometry and pattern, and their adjustments	123 - 137
27	Floodplains and terraces	155 - 156, 166 - 182
27	<b>LAB 7:</b> Hydrology and drainage-basin morphology	
1-Apr	Alluvial fans and pediments	156 - 166
3	Coastal erosional and depositional processes	429 - 441
3	<b>LAB 8:</b> Fluvial landforms and relations	

DAY	TOPICS	READING
8-Apr	Coastline morphology	441 - 466
10	Glaciers: origin and movement; glacial budget	293 - 314
10	<b>LAB 9:</b> FIELD TRIP to Mad River: fluvial processes	
15	Glacial erosional processes and landforms	314 - 320, 334 -341
17	Glacial depositional processes and landforms	320 - 326, 342 - 361
17	<b>LAB 10:</b> FIELD TRIP to Big Lagoon: beach processes	
22	Quaternary geology and geomorphic history	365 - 393
24	Sea-level variations: causes and effects	377 -379
24	<b>LAB 11:</b> Glacial landscapes: recognition of glacial effects and history	
29	Periglacial processes and landscapes	400 - 422
1	Aeolian processes	471 - 490
1	<b>LAB 12:</b> Effects of climatic and sea-level changes	
6-May	Relative and absolute dating	494 - 516
8	Relative and absolute dating	
8	<b>NO LAB</b>	
<b>9-May</b>	<b>FINAL EXAM :Tuesday 10:20 - 12:10 (in lab room)</b>	

<b>Text:</b>	Easterbrook: Surface Processes and Landforms, 2nd ed.	
<b>Grading:</b>	Midterm (includes lecture and lab)	20%
	Final (includes lecture and lab)	20%
	Labs and field work	60%
Grades are assigned using a modified class-average approach.		