



PRELIMINARY SYLLABUS

GEOG 322 GEOMORPHOLOGY WINTER 2015

Meets at 2:00 – 3:20 on Tuesday and Thursday, plus a 1-hour lab (various times)

COURSE CONTENT This course covers surficial geomorphic processes, including landslides, rivers, glaciers, wind, and coastal processes. The goals of the course are for you to

- 1) Acquire an understanding of geomorphic processes that shape Earth's surface;
- 2) Acquire an understanding of research methods and how geomorphic knowledge is made;
- 3) Use geomorphic techniques to recognize and interpret landforms on maps, air photos and the actual landscape;
- 4) Provide a foundation for Geog 427: Fluvial Geomorphology, and other advanced courses.

PREREQUISITE Geog 141 or Geol 102 or Geol 202. Recommended: Math 111 and 112. Geog 322 is a challenging course that requires a substantial amount of work on your part. You must be able to do basic algebra and trigonometry.

INSTRUCTOR Pat McDowell, office at 152 Condon Hall, phone: 346-4567, e-mail: pmcd@uoregon.edu.

TEXTBOOK Bierman and Montgomery, *Key Concepts in Geomorphology*, 1st ed, 2014 (W. H. Freeman & Co.). Available as a book at UO Bookstore; also available as an e-book.

GRADING Total course score is based on two tests (about 40%), lab assignments (about 50 %), and quizzes (about 10%).

WEEK	TOPIC	READING
1	Introduction to geomorphology	Ch. 1, 2
2	Weathering; Hydrology	Ch. 3, 4
3	Mass movement; Slope stability	Ch. 5
4	River channels	Ch. 6
5	Drainage basins	Ch. 7
6	TEST 1; Coastal processes	Ch. 8
7	Coastal (con.); Glacial processes and landforms	Ch. 8, 9
8	Glacial (con.); Wind processes	Ch. 9, 10
9	Wind (con.); Quaternary climate change effects on geomorphology	Ch. 10, 13
10	Climate change (con.); Long-term landscape development	Ch. 13, 14
	TEST 2 will be given Monday of Finals week	

LAB EXERCISES Topics include: assessing earth and soil materials; geomorphic measurement and analysis on topographic maps; use of digital imagery and topographic data in geomorphology; mass movement hazards; flood frequency analysis; interpretation of fluvial glacial, and coastal landforms on maps and aerial photos.