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.


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.