November 30, 2015

**Notes at start of Class:**
We may have other announcements via Canvas & email. Please do course evaluations.

Final exam is December 10, 2:45 in PAC123. It will be the same format and roughly the same length as the midterm. If you need excused special arrangements and you haven’t told me already, you need to immediately. We will be grading the final shortly after it is taken.

Classes during the next two terms: Fall: Geog 322 (Geomorphology), Geog 361 (Global Environmental Change), Geog 410 (Mountain Geography), Spring: Geog 321 (Climatology), Geog 360 (Watershed Science and Policy).

**Finishing up Units 40 (part) and 41**
Landscapes shaped by fluvial erosion. Patterns of erosion shaped by climate factors, bedrock type, tectonics and various geologic structures, time? Drainage density, dendritic drainage vs. others such as radial or rectangular. We are skipping the rest of the Unit – you can learn about these things in Geomorphology class.

**Unit 41**
Landforms of the fluvial system. Alluvial fans (ephemeral streams, fans, bajadas). Landforms of River Valleys (alluvium, meanders, point bars, cutbanks, oxbow lakes, braided streams). The Floodplain (floodplains, meander belts, natural vs. artificial levees, floodplain use by humans). Terraces. Deltas and distributaries.

**Unit 43**
Cryosphere, glaciers (alpine and continental), glacial periods/ice ages, interglacials, formation of glacier ice, firn, zone of accumulation, zone of ablation, movement of ice, glacial creep, glacial sliding, temperature and glacial movement, glacial erosion/plucking/abrasion/striations

**Unit 44**
Continental glaciation, Antarctic ice sheet, Greenland ice sheet, past ice sheets such as the Laurentide and Cordilleran Ice Sheet, fluctuations of the Laurentide Ice Sheet such as the Wisconsinan and earlier periods, glacial sediment such as till, outwash, landforms such as moraines, terminal morains, recessional moraines, drumlins, kames, outwash plains, kettles, glacial lakes and pluvial lakes

**Unit 45**
Mountain glaciers, geography of mountain glaciers, erosional landforms of mountain glaciers such as glacial troughs, hanging valleys, cirques, aretes, horns, tarns, fjords, depositional landforms such as lateral and medial moraines, problems with glacial outburst floods