PROPOSED GENERAL OUTLINE FOR

Geography 322 – Geomorphology

Fall 2018

Class particulars

Johnny Webb, instructor
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Lecture –
10–11:20 Tuesday and Thursday
229 McKenzie Hall

Labs –
see schedule of classes for lab locations and times

Course objectives

You will be able to explain the evolution of landscapes – such as those shown in the three photographs on this page – using word-pictures and mathematics

You will be able to write clear and concise prose related to geomorphic investigations and subjects

You will learn that quality surpasses quantity and that nothing should be done just for the sake of a grade

You will produce content-rich, attractive graphs and figures

How it will be done

Each class period you will be given an in-class assignment that addresses topics covered in the reading and during lecture. The weekly lab will explore in greater depth the topics discussed in lecture. The optional field trip will provide an opportunity to see and discuss geomorphology outdoors. It will last only one day. We will need to make the trip early in the quarter to avoid poor weather. You will be required to make the trip early in the quarter to avoid poor weather. You will be required to prepare a report connecting field observations, existing research, and some original analysis. The final exam is optional, will take place during finals week, and will be both comprehensive and challenging.

It will be nearly impossible to take notes with a computer; I recommend buying a fountain pen.

in-class assignments = 50%
weekly labs = 40%
optional field trip = up to 30%
optional final exam = up to 60%
weekly readings

Our principal topics

We will concentrate on glaciers, rivers, wind, weathering, the lower atmosphere, sediment, gophers, the Quaternary, volcanoes, isostacy, beaches, and typefaces.

How this class differs from previous offerings

This course will emphasize three things: thinking, writing, and math. These three skills, which can be used in any line of work, will here be used to analyze earth surface processes and landscapes.

Compared to previous versions of GEOG 322 (including the other time I taught it) we will have more of both writing and math. For those of you who took GEOL 202 from me, this course emphasizes current understanding of processes rather than the underlying phenomena. Furthermore the reading will not be optional if you expect to succeed.

Traditionally this class had a 50 minute lab; 50 minutes is too short. The labs are now 2 hours long and will be mostly new or modified versions of those used in GEOL 202 in winter 2018.

On all assignments you will be encouraged to work in small groups, including the final. The labs will often require a computer with a spreadsheet application.

We will use algebra, trigonometry, and geometry. I may use a little calculus but you will not. You will need a scientific calculator because cell phones are not allowed in the lecture hall. Computers may only be used in the back row. If you do not like the outdoors you will not enjoy this course.

What you will read

In previous years we have required the textbook Key Concepts in Geomorphology, but the authors are working on a 2nd edition and it seems silly to require the 1st (which will soon be worthless). Instead we will assign weekly readings that should take about an hour. Some readings will be book chapters, others will be scientific research articles, and perhaps you will also read some sections of novels or some poetry. I just read The Master and Margarita and highly recommend it.

Teaching Philosophy

Thinking is more important than memorization; my lectures emphasize the former. Sound reasoning is more important than being "correct". Lecture slides with text make teaching easier but learning harder – there will not be any ‘slides’ in this course, only photographs. Diagrams will be drawn on the board. My questions and assignments are often open-ended. I encourage group work and love it when students teach each other. Expect (at times) to struggle. I agree with Anderl Meier that style matters much and is generally not a matter of the clothes you wear.