Process Geomorphology

GEOL 3750 - 4 Credits
Syllabus and Schedule: Spring 2008
10:00 – 11:15 am TTH & Lab 1:00 – 4:00 pm TH
Sullivan-Harrell Hall 143

Instructor: Dr. Zachary Musselman
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Office Hours: 11:00 – 11:50 am Monday, Wednesday, and Friday or by appointment
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Course Description

Landforms are the surface configurations of the land. Geomorphology (from geo, "Earth," morphos, "shape," and logos, "study,") is a science that analyzes and describes landforms-their origin, evolution, form, and spatial distribution. It is also one of the major sub-disciplines within both geology and geography. In this class we will explore the earth's surface while applying two approaches. First we will consider landforms as indicators of geologic age, and take a descriptive approach. Second, we will approach the science through the more recent emphasis on both quantitative analysis of landform morphology and the field measurement of geomorphic processes.

Course Objectives

1. To build knowledge of processes that shape Earth's surface
2. To increase understanding of the ties between Earth's endogenic and exogenic processes and human existence
3. To use knowledge of Earth's landscapes and landforms to interpret information pertaining to observable physical conditions

Required Textbook

Lecture: Ritter, Kochel, Miller, 2006. Process Geomorphology (4th ed.). Long Grove, IL: Waveland Press.
Additional readings will be assigned.
Lab Materials: Ruler, Colored pencils, graph paper (10 square to 1 inch), hard lead pencil

Grading and Evaluation

Your grade in this course will be based on the following:

1. 3 exams	60% (20% each)
2. Lab Exercises	25%
3. Reading and Writing assignments	15%

You will be notified before midterm of your grade and progress in this class, if you wish to know your grade at any other time during the semester let me know.
Exercises will be presented and explained during class. When you turn them in, I expect neat and legible work.
Scientific journal articles will be assigned reading throughout the semester. You will be provided the paper (minus title, author(s), and abstract). Your assignment will be to provide an appropriate title and write an abstract.
Grading will be on a standard 10-point scale: 100-94 A, 93-90 A-; 89-87 B+, 86-84 B, 83-80 B-; 79-77 C+, 76-74 C, 73-70 C-; 69-67 D+, 66-60 D; < 60 F

Field Trip

Field experiences in the Earth Sciences are crucial to understanding the world around us. As such, at least one, possibly two field trips (TBA) will be required during the semester. These will likely occur during lab time, but might include a Friday afternoon or entire Saturday.

Policies

1. Cheating and plagiarism. You have signed the Millsaps Honor Code, and as such have made a public pledge not to act in a dishonorable way. These are very serious offenses, and will not be tolerated in this class. (http://www.millsaps.edu/academics/honor_code.shtml)

2. Attendance. It is vital that you attend class. I will not take attendance, but I expect you to come to class, and be on time. It is ***the student's responsibility*** to contact classmates to obtain lecture notes or important class news when absent. No makeup exams or activities will be given, except in cases of emergency where proof of such emergency is provided in writing to the instructor within one week of the missed assignment. Acceptable excuses include serious illness of student, illness or death of family member, approved University travel, or observance of a major religious holiday.

3. Make-up exams. Do not exist, don't bother asking. Of course, if you are subject to some serious injury, illness, or other documentable factors that physically prevent you from attending an exam, arrangements will be made. Requests for make-up exams must be supported by proper documentation. Please notify the instructor as soon as possible if you know in advance of this situation.

4. Curving. Scores and grades may be curved at the discretion of the instructor.

5. Tests. Test dates will be confirmed one week prior to the test. Any material covered in class or in the assigned readings is fair game.

6. Exercises. Exercises turned in late will be given a zero.

7. Electronic devises. Use of electronic devices of any kind is not permitted in the classroom. All cellular phones should be turned off at all times when in the classroom. Headphones should not be worn in the classroom, when you are in class, I expect you to be attentive.

8. If you are having problems. It is crucial you keep up by attending class and completing readings on time. It is also crucial that you grasp material as we proceed, as some lectures will build upon material presented in previous classes. If you still find yourself having problems …

1. See me, and try harder.
2. Try harder, and see me.
3. Return to step one.

Schedule (tentative)

Week	Dates	Topic:	Chapters
1	Jan. 15-17	Course Introduction; The Development of Ideas & Concepts	1
2	Jan. 22-24	Internal Forces and Climate	2
3	Jan. 29-31	Chemical and Physical Weathering	3 & 4
4	Feb. 5-7	Soils I	3
5	Feb. 12-14	Soils II; Properties and Mass Movements of Slope Material	3 & 4
6	Feb. 19-21	**Exam 1;** The Drainage Basin I	5
7	Feb. 26-28	The Drainage Basin I	5
8	Mar. 4-6	The Drainage Basin II	5
9	Mar. 11-13	Fluvial Processes	6
10	Mar. 18-20	**Spring Break – No Class**	
11	Mar. 25-27	Fluvial Landforms; **Exam 2**	7
12	Apr. 1-3	Aeolian Processes and Landforms	8
13	Apr. 8-10	Glaciers & Glacial Mechanics	9
14	Apr. 15-17	Glacial Erosion, Depo., & Lndfrms; Periglacial Processes & Lndfrms	10 & 11
15	Apr. 22-24	Karst; Coastal Processes & Lndfrms	12 & 13
16	Apr. 28	**Exam 3**: Monday, Apr. 28th 2pm	