

Course Syllabus
GEL 341 Process Geomorphology

Fall, 2007

Instructor Information

David A. Franzi
123 Hudson Hall
Office Hours: MWF 10:00-10:50
(other hours by appointment)
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Class Meeting:

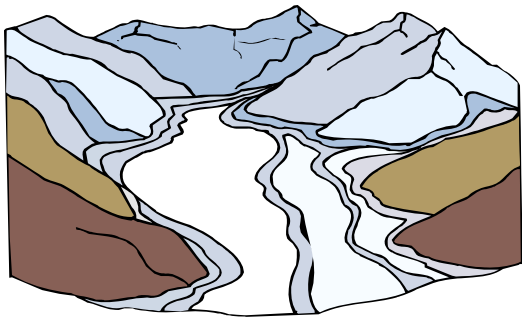
Lecture: 11:00–11:50 MWF, 128 Hudson Hall

Textbooks:

Easterbrook, D.J., 1999, *Surface Processes and Landforms; Second Edition*: Prentice-Hall, Upper Saddle River, New Jersey, 546p.

Grading Policy:

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| 20% Quizzes, Homework, and Assigned Readings | TBA |
| 50% 2 Hour Exams (25% each) | Exam dates: #1: 10/01 #2: 11/02 |
| 30% Comprehensive Final Exam | Exam date: Finals Week (TBA) |



It is the student's responsibility to make alternative arrangements for a missed quiz or exam. Whenever possible, such arrangements should be made beforehand but if you miss a quiz or exam due to unforeseen circumstances you must contact me as soon possible with a valid excuse. A missed quiz or exam without a valid excuse will receive a grade of zero.

Class participation will be used to aid final grade determinations for borderline situations.

Course Description:

Geomorphology is the study of landforms and landscapes and their relationship to surface processes, underlying structure and the history of geological changes. Process geomorphology views landforms and landscapes as the result of a balance between driving forces, such as climate, gravity and internal heat flow, and the resisting framework created by the lithology and structure of near-surface earth materials. This approach emphasizes the relationship between process and form; underscores the linkages between geomorphology and other geologic disciplines such as tectonics, structural geology, geophysics, petrology, sedimentology,



stratigraphy, cosmology and atmospheric science; and acknowledges that landscapes are palimpsests that often retain relict features that are not in equilibrium with existing controls.

By the end of this semester, you will be able to;

- Explain the principles and main components common to most natural earth systems and...
- Apply the system concept to any biological, chemical or physical system;
- Identify basic landforms on topographic maps, aerial images or in the field and interpret how they formed;
- Identify linkages between different geomorphic processes and systems;
- Collect and analyze geomorphological data from topographic and geologic maps, geological cross sections of the Earth's crust and field exposures of geological materials;
- Relate natural geological processes to natural hazards (for example earthquakes, volcanoes, floods and hurricanes), and contemporary social issues such as energy and mineral resources, ground and surface water resources, pollution, and global climate change;
- Make informed decisions about issues dealing with our physical environment and act to make the world a better place for everyone.

Expectations:

- *Effort and Workload*—Knowledge comes from understanding, not rote memorization of facts, and understanding requires curiosity and honest effort. You may expect me to treat each student respectfully and fairly and to arrive well prepared for every class. I will do my best to stimulate your curiosity through my enthusiasm and passion for geology and to present each subject in the most interesting and relevant way I can. I, in turn, expect from you an honest effort to understand the information I present. I expect you to read the assigned chapters before class and come to every class prepared to ask questions and engage in group discussions. This level of preparation requires that you dedicate time on a regular basis to read and study outside of class. If you have trouble understanding the material presented in class, I expect you to seek additional help from your classmates, a geology tutor (if one is available) or me. I am available for walk-in consultations during my office hours; however, I am generally accessible when not conducting field research. I encourage you to seek me out at any time if you have a course-related question or concern.
- *Academic Honor Code*—I expect that all students enrolled in this class support the letter and spirit of the SUNY Plattsburgh student Code of Conduct and the Honor Code Pledge;

"I commit myself to academic integrity in and out of the classroom. I will be honest, responsible, and give support to others as they abide by this pledge."

The academic Honor Code applies all aspects of your academic life but especially to cheating or plagiarism. Students found guilty of cheating or plagiarism may receive a reduction of grade for that assignment, a failing grade for the course, or may be suspended or dismissed from the College.

- *Attendance*—Attendance is required. I allow three unexcused absences without penalty during the semester. Each additional unexcused absence results in a penalty of 1% of the final grade. It is the student's responsibility to obtain any course material (e.g. class notes, handouts, assignments and etc.) missed due to an absence.
- *Electronic Devices*—I expect all electronic devices such as cell phones, pagers, I-pods, CD-players and etc., to be deactivated and stowed away prior to class.

Lecture Schedule

| Date | Lecture Topic | Reading |
|----------|--|-----------|
| 08/27 | Approaches to Geomorphology, Geomorphic Systems | p.1-12 |
| 09/03 | Cascading Process Systems | TBA |
| 09/10 | Dates and Rates in Geomorphology | p.494-516 |
| 09/17 | Tectonic Geomorphology and Geological Structures | p.215-239 |
| 09/24 | Tectonic Geomorphology and Geological Structures | p.240-292 |
| 09/28 | HOURLY EXAM #1 | |
| 10/01 | Weathering, Erosion and Mass Wasting | p.13-50 |
| 10/08 | Columbus Day (No Class) | |
| 10/10 | Mass Wasting and Hillslope Hydrology | p.56-91 |
| 10/15 | Drainage Basin Morphology and Hydrogeology | TBA |
| 10/22 | Fluvial Processes | p.96-137 |
| 10/29 | Fluvial Landforms | p.144-182 |
| 11/02 | HOURLY EXAM #2 | |
| 11/05 | Glacial Processes | p.293-327 |
| 11/12 | Glacial Landforms | p.333-361 |
| 11/19 | Quaternary Climate Changes and Ice Ages | p.364-393 |
| 11/20-25 | Thanksgiving Recess (No Classes) | |
| 11/26 | Periglacial Processes and Landforms | p.400-422 |
| 12/03 | Coastal Processes and Landforms | p.428-466 |