

GEOLOGY 151  
GEOMORPHOLOGY  
Fall 2001

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CLASS WEB PAGE: <http://geology.uvm.edu/morphwww/classes/morph/>

Landscapes surround us all and often seem to be static, unchanging backdrops for our day to day activities. Yet, if we begin to look closely, landscapes are anything but static features; they are continually evolving at a variety of time and length scales.

So, what then is Geomorphology? Narrowly, it is the study of landscapes, their forms and the history of their development. Broadly, it is what I hope to show you this fall. I'll argue that Geomorphology is one of the most synthetic of geologic sub-disciplines. Properly done it must consider any number of processes: tectonism, volcanism, weathering, hydrology. My goal for you as students was best expressed by one of my colleagues, "After this class you'll never look at a landscape the same way again. You'll always stop and wonder how and why the land looks the way it does..."

We will use a variety of tools and approaches to learn more about Earth's surface. Monday classes will be devoted to activities and reduction of data collected the week before. Mondays will be well illustrated with slides and transparencies. Wednesday, we will take fieldtrips and gather data. For those of you whose Earth Science may be a bit rusty, any of the introductory Geology texts held by the library should serve you well as a source of information.

You will be responsible for completing a variety of assignments over the course of the semester. There will be occasional readings in John McPhee's book, *The Control of Nature*, readings that we will discuss in class. There will be assignments related to the fieldtrips and each of you will be part of a group research project. There will be frequent and unannounced reading quizzes on assigned readings. The quizzes will last 5 minutes and will start immediately at the beginning of class. So, if you want to take the quizzes, do not be late for class.

The research project is an integral part of this class. It will be done in groups of two and will require the collection of data, and the analysis and interpretation of the your data in the context of the published work of others. The purpose of this project is many-fold including: an introduction to the geologic literature, experience in data collection and interpretation, honing your writing and presentation skills, and practice in collaboration and hypothesis testing. All parts of the research project should be submitted using Adobe Acrobat as PDF files (this allows full cross platform readability). The final presentations will be done in PowerPoint.

Grades will be calculated as follows. Assignments are due promptly at the beginning of class. Late assignments are very strongly discouraged and will lose one letter grade for each day they are late unless arrangements have been made with me prior to the due date of the assignment. There will be no exams during the semester and your performance will be evaluated as follows.

quizzes	20%
fieldtrip reports (drop lowest)	30%
project	35%
reading sheets	5%
participation, attendance, and effort	10%

There are three required texts for the course; all will be available at the bookstore.

McPhee, J., *The Control of Nature*

Van Rose and Mercier, *Volcanoes*

Leopold, *Water, Rivers and Creeks*

There is no text book for the course this year due to suggestions from the last several years of students. Rather, I have compiled a group of readings which you will need to download from electronic reserve in the library.

For those who prefer the written word, I will leave copies of Bloom and Ritter (general geomorph texts) on the shelves outside my office. These books should NOT leave the building and should return to my shelf when you are done with them.

My official office hour is Monday at 2:15 after class. If you need to chat, feel free to stay after class or better yet email or call me for an appointment. I often work at home writing in the mornings.

Field trips make up an integral part of this course. All nine trips will include some amount of walking and sturdy shoes are recommended. Of course, since it will be fall in Vermont, the weather will be cool and clear but make sure you are prepared for cold, wet conditions. Unless the weather is extreme enough to present a hazard, we will go out in the, rain, fog, snow, wind. For each trip you MUST have:

Waterproof raingear

Sturdy footwear

a sweater for warmth

a waterproof field notebook and pencil

perhaps a small knapsack to carry all this.

Money for bakery stops

Adam Parris is the teaching Assistant for this class. He will establish office hours but is also available whenever you can find him. Adam will be grading your laboratory assignments, reading sheets, and quizzes. I will grade your projects. We will grade your presentations together.

Please get an email account ASAP and email me a message at [pbierman@zoo.uvm.edu](mailto:pbierman@zoo.uvm.edu). Most of your assignments will be due electronically so email is a must. Reading sheets can be downloaded from the class web site and should be sent to Adam by email before class.

Attendance in this course is required and will be graded. If you know in advance that you will miss a class, please let me know. Also, I will abide by and hold you all to the Arts and Sciences guidelines for class room behavior. Respect and courtesy are top priorities. Get ready for a fun semester!