

Geology 1 - Physical Geology

Fall 2009



Instructor Information

Sara Di Fiori

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Office- NATS 208

Phone extension: 3368

Office Hours: MW 1:45-3:00

Tues 1:50-4:20

And by appointment

Class Meetings: Section #1284 - Monday/Wednesday 8:00- 9:01 a.m.

Fridays 8:00- 8:50 a.m.

Section # 1286 - Monday/Wednesday 9:15 - 10:16 a.m.

Fridays 9:15-10:05 a.m.

Classroom- NATS 206

Materials

- Textbooks -

REQUIRED: **EXPLORING GEOLOGY - CUSTOM**

Lecture notes: Available as PDF on instructor's website

- Calculator
- #2 pencils and erasers
- Colored pencils
- Rulers
- Internet access: Lecture slideshows will be posted on the website as PDF files. They will be available for download and viewing. Slideshows are a supplement, not a substitute for lecture. Abuse of this courtesy (i.e. lowered attendance) will result in termination of postings.

Content

This course provides an introduction to the materials, structures, and processes that shape the earth. The course includes a survey of minerals and rocks, a study of plate tectonics and the forces that create volcanism and earthquakes, and a study of topographic features created by streams, landslides, ground water, glaciers, wind and ocean waves.

Prerequisites

There are no prerequisites for this course, but eligibility for English 84 is recommended.

Methods of Evaluation

Grading

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| Exams | 50% |
| Quizzes | 10% |
| Assignments | 15% |
| Paper | 20% |
| Participation | 5% |

CHEATING RESULTS IN AN AUTOMATIC F!

- **EXAMS** - There will be three two-hour exams and one final exam (see schedule) consisting of essay questions, multiple choice, and diagrams. There will be a comprehensive final exam. **No Make-Up Exams Will Be Given!** Students who need to reschedule an exam, may do so **ONLY** by contacting me well in advance of the date the test is given. Otherwise, only a verifiable excuse (i.e. official doctor's note) will justify a make-up.
- **QUIZZES**- A weekly quiz will be given on Monday Morning, at the beginning of class. No make-ups will be given, and parking is not an excuse, **COME EARLY!**
- **ASSIGNMENTS**- Both in-class activities and homework will count toward this portion of the grade.
- **RESEARCH PAPER**- Each student will write a 10-12 page paper on a topic their choice. Both an initial and second draft will be required and evaluated. Students who are unsatisfied with their grade on the second draft, may submit a third draft by the posted deadline. The

second draft will still contribute $\frac{1}{2}$ of the final grade! Topics will be selected by the date specified on the course schedule. More information to follow.

- **PARTICIPATION-**

- Contributing to a respectful and scholarly atmosphere is expected of each student. Participation includes attendance. Students who are absent more than two class meetings in a row, ***may be dropped*** from the course. However, do not assume that I've dropped you. Maintain responsibility for your enrollment status.
- Participation on the field trip is strongly recommended. Students unable to attend will complete a rigorous alternate assignment.

No Late Material Will Be Accepted!

Electronic Device Policy

Use of electronic devices such as PDA's, Laptops, Cell Phones (especially text messaging) during class time is both inappropriate and considered rude behavior toward your classmates and instructor. ***It will not be tolerated.*** Use of such equipment can be made before class, after class, or during the break. If you cannot spend the duration of a class without using an electronic device, than this class is not for you.

Tips for succeeding in this course:

Although the material in this course is challenging, every student is capable of succeeding. Success will require diligence on the part of the student. This will require spending time on the subject outside of class. A general rule of thumb for success in a college class is to multiply the number of units by two, and spending that number of hours studying the material ***outside of class***. Since Geology 1 is a 3 unit class, this means that you should expect to spend approximately ***six hours per week*** in individual review. By combining good study habits with visits to office hours, you will be amazed at your own progress and capacity for mastering scientific information! In addition, forming and meeting study groups consistently leads to higher performance on exams. Your peers are a tremendous asset!

It is also important to download appropriate lecture notes from the specified website ***prior to class***. This way you will be able to focus on the class material while referring to the notes.

Course Objectives:

Students who pass this course will be able to:

1. Relate the characteristics and nature of the common rock-forming minerals and rocks to the processes that formed them.
2. Describe the processes, hazards, and results of igneous activity.
3. Evaluate the methods used to determine the age of the earth, the geologic time scale, and methods of dating rocks.
4. Correlate the formation of earthquake waves with faults and plate tectonic forces.
5. Relate the theory of plate tectonics to volcanism, earthquakes, mountain building, and other geologic processes.
6. Evaluate the different kinds of folds, faults, and unconformities and assess the forces that led to their formation in the context of plate tectonics theory.
7. Explain the consequences of mass movements as related to human activities.
8. Describe the processes of weathering and erosion of rocks, including methods by which streams, groundwater, glaciers, wind and ocean waves shape the surface of the earth.

Student Learning Outcomes

1. Students can identify the key elements of the scientific method (hypotheses, tests, observations, conclusions/interpretation of observations) in popular accounts of scientific research in magazines, newspapers, movies, and on the Internet. When presented with observations of the geological processes of the Earth, students will formulate their own hypotheses to explain the observations, and design an experiment to test the validity of their hypotheses.

2. Students recognize and articulate how the Earth affects their lives and how their lives affect the Earth and environment.

3. Students can identify the critical features of the basic concepts of Geology. (This includes the ability to recall the definitions of the specialized vocabulary of geology.)

IMPORTANT DATES

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| Last Day to Add (Full Semester Courses) | Sept 11 |
| Last Day To Drop and Be Eligible for a Refund | Sept 11 |
| Last Day to Drop Without Notation on Permanent Record | Sept 25 |
| Last Day to Drop with a "W" | Nov 20 |