

## Earth Science 101, Earth Processes

**Instructors:** Drs. Glenn Spinelli and David Johnson

**Required book:** *Earth: An Introduction to Physical Geology*, 9<sup>th</sup> Edition, by Tarbuck and Lutgens. ISBN 9780131566842 (hrdbk) or 0131566849 (paper)  
**and required map:** *Landforms of the United States*, by Erwin Raisz (available at bookstore and online ([www.raiszmaps.com](http://www.raiszmaps.com)))

### Tentative schedule:

Date	Topic	Reading	Instructor(s)
8/26	Course introduction	Chapter 1	Both
8/28	Introduction to geology (GS away)	Chapter 1	Johnson
9/2	Plate tectonics	Chapter 2	Spinelli
9/4	Minerals and rocks	Chapter 3	Johnson
9/9	Igneous rocks	Chapter 4	Spinelli
9/11	Volcanism	Chapter 5	Spinelli
9/16	Volcanoes	Chapter 5	Spinelli
9/18	Weathering and erosion	Chapter 6	Spinelli
9/23	Exam #1 (GS away)		
9/25	Soils (GS away)	Chapter 6	Johnson
9/30	Sediments and sedimentary rocks	Chapter 7	Johnson
10/2	The rock record and geologic time	Chapter 9	Johnson
10/7	Metamorphic rocks (DJ away)	Chapter 8	Spinelli
10/9	Folds and faults (GS away)	Chapter 10	Johnson
10/14	Earthquakes	Chapter 11	Spinelli
10/16	Earth's interior	Chapter 12	Spinelli
10/21	Exam #2		
10/23	Ocean basins	Chapter 13	Spinelli
10/28	Mountain building and the evolution of continents	Chapter 14	Spinelli
10/30	Mass wasting	Chapter 15	Spinelli
11/4	Rivers	Chapter 16	Johnson
11/6	Hydrologic cycle and groundwater	Chapter 17	Spinelli
11/11	Caves	Chapter 17	Spinelli
11/13	Exam #3		
11/18	Glaciers	Chapter 18	Spinelli
11/20	Deserts and winds	Chapter 19	Spinelli
11/25	Shorelines	Chapter 20	Spinelli
11/27	No class -- Thanksgiving		
12/2	The climate system	Chapter 21	Spinelli
12/4	Earth through time (GS away)	Chapter 22	Johnson
12/9	Energy and mineral resources	Chapter 23	Spinelli
12/11	Planetary geology	Chapter 24	Johnson
Finals week	Final exam (GS away)		

**CLASS WEB PAGE:** There is a web page for Earth 101. The page contains general information about the class, most of the lecture materials, and links to web sites related to class material. The address is: [www.ees.nmt.edu/Geol/classes/erth101/](http://www.ees.nmt.edu/Geol/classes/erth101/). The login and password for access to the restricted material will be provided in lecture or you may contact [djohnson@nmt.edu](mailto:djohnson@nmt.edu).

**EXAMS:**

All exams will be closed book and closed notes. We may reschedule mid-semester exams with a minimum of one week notice. Exams 2, 3 and the final will be comprehensive, but will emphasize new material. All material covered in lecture is fair game for test questions. In addition, some material not covered in lecture, but in the assigned reading, will be included as test questions. In such cases we will inform you of the relevant topics prior to the exam. Some test questions will relate to slides and videos shown in lecture. No make-up exams will be given. (This is not as harsh as it seems; see grading policy below.) Study questions and past exams will be made available on the restricted portion of the web site. If you think an exam question has been graded unfairly, please research the topic in your book and lecture notes to document your case and then come by during our office hours to discuss it. We encourage you to do this because mistakes in grading are occasionally made in all classes.

**Academic Integrity** is important in all the classes that you take. *This class and lab will operate on an honor system.* You are welcome (in fact, encouraged) to discuss laboratory assignments with your classmates or colleagues, but all the work that you turn in for this class must be your own.

Academic dishonesty is defined as an act of academic fraud. It could include: cheating, plagiarism, falsification, impersonation, obstruction, or giving assistance. The NMT policy on Academic Honesty provides for stiff penalties. Please take the time to visit the class web site to learn what is expected of our students in each of these areas.

Examples:

Exams: If you copy answers from another student, are caught with a crib sheet, or in any more creative way attempt to cheat on an exam you will immediately be given a failing grade for the course. Furthermore, we will petition the Dean of Students to have you placed on probation or suspended from school.

Labs: Getting (or giving) help from (to) a colleague on an assignment if you are confused or stuck = OK

Copying any portion (or all) of an assignment or letting someone copy your assignment = not OK

At the beginning of the semester, every student in this class will sign a statement indicating that they will neither give nor receive unauthorized aid on any assignment, lab, or exam in this class. Then, implicit in all the assignments that you complete for this class is the statement, **"On my honor, I have neither given nor received unauthorized aid on this academic work."**

**GRADING:**

Grading will be based upon student performance on one quiz, the final examination, plus best two of the three mid-semester exams (i.e., we will drop your worst mid-semester exam prior to calculating your course grade).

**OFFICE HOURS:**

Dr. Glenn Spinelli  
Office: MSEC 360  
Phone: -6512  
email: [spinelli@ees.nmt.edu](mailto:spinelli@ees.nmt.edu)  
Office Hrs: T 10:00-11:00 am;  
W 1:00-2:00 pm;  
and by appt.

Dr. David Johnson  
Office: Fitch 204  
Phone: -5481  
email: [djohnson@nmt.edu](mailto:djohnson@nmt.edu)  
Office Hrs: MW 11:00 am -12:00;  
T 3:00-4:00 pm;  
or by appt.

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I am responsible for the academic integrity of my work. I pledge that I will not misrepresent my work nor give or receive unauthorized aid. I accept responsibility to maintain this Honor Code in this class (ERTH 101, 101L, or 103L).

Name: \_\_\_\_\_

Signature: \_\_\_\_\_