

GEOL 101: INTRODUCTION TO
GEOLOGY
Winter, 2008

Class Meeting Times and Locations:

MWF 9:00 – 9:50 Room: PH 146

MWF 11:00 – 11:50 Room: SL 150

The Person Standing in Front of the Class:

Dr. Pete Stelling

Office: Environmental Sciences rm. 121 (near lab rooms)

Office Phone: 650-4095 (leave message)

E-mail: pete@geol.wvu.edu

Office Hours: MWF 1:30 pm - 2:30 pm



E-mail is the best way to contact me. I check it often and usually respond immediately.

My only contact for you is your official WWU email on Blackboard. **It is up to you** to ensure you receive any messages or announcements I send to you. Make sure you check your junk mail box!

We will be using Blackboard for this course. I will post assignment information, announcements, and .pdf versions of my PowerPoint presentations for each lecture. You are **STRONGLY** encouraged to print a copy of these lecture notes and bring them to class for lecture – this will significantly enhance your class notes. These will NOT be enough to succeed in class, however, and you will have to attend lecture in order to do well on the exams

Labs: Please note that this course is not offered without a lab. **You must attend lab.** Because this class provides GUR lab credit, **you must pass the lab (>60%) to pass the course.** If you earn a 95% in lecture and 45% in lab, you will fail the course.

Required Texts:

- **Exploring Geology (Reynolds, Johnson, Kelly, Morin and Carter).**
- **Lab manual:** You will be supplied with a lab manual on the first day of lab.

Course Description: Geology is the study of how the Earth works, which encompasses a wide range of scales, locations and compositions. In both lecture and lab we will be exploring a vast array of topics, issues, and processes that describe how our planet formed and how it continues to evolve around us. The better we understand how the Earth works, the better prepared we will be to live on and with our planet.

Course Objectives: The overall goal of this course is to present you with a well-rounded introduction to how the Earth works and how its processes shape the landscape and affect your lives. At the completion of this course you will have a general understanding of your planet's physical processes along with some practical lab skills of mineral and rock identification and expertise in using topographic maps. Overall, there are four things that I really want for you to retain from this class: 1) A sense of wonder, 2) To find a rock and be able to tell at least part of its story, 3) Enough geologic knowledge to wisely buy a house, and 4) Have more interesting road trips.

Teaching methods: This course has two components, lecture and lab.

Lecture: This is where I will lecture and you will take notes, which requires that you attend every class and take good notes. Exam material will come primarily from class notes. If you need help in determining what should go into your notes, come talk to me or visit TASC (<http://www.wvu.edu/depts/tutorialcenter/home.htm>). I will not take roll, but I may offer in-class extra credit opportunities. If there is some reason you cannot attend class, talk to me about it **before** you miss class. You can get notes from your classmates, not me. Additional test material may come from sources like special lectures, videos, and the text. We will be using the Blackboard web site to communicate with each other.

Lab: The lab will involve online pre-lab exercises, short lectures to introduce the topics and hands-on activities that you and your classmates will work on together. Lab work not finished during lab should be finished at home. Assignment due dates are set by your lab instructor.

Quizzes and Grading: The number of points possible in this class will be 4.57 billion, the same number as the age of the Earth in years. The lecture portion of the class will be worth 75% of your total grade, or 3,428,000,000 points. The lab grade will be worth 25% of your total grade, or 1,142,000,000. The lecture portion of the grade will be based on four (4) quizzes (3 mid-terms and a cumulative final) worth 857,000,000 points each. Each mid-term exam will include material introduced since the prior exam. The final exam will be cumulative. No makeup exams or “extra credit” will be given, so please don’t ask. It is possible to take an exam early, but ***you must arrange it with me at least one week in advance.*** Exams will contain a combination of multiple choice and short answer/fill in/diagram type questions. I have listed all exam dates in the schedule and these will not change. Exams may be curved, but only if the class mean is below 75%, and the curve will be enough to raise the mean to that level. Lab exams, projects and exercises will constitute the remaining 25% of your grade. Please note that since you are receiving lab credit for this course ***you must earn a 60% or greater in the lab in order to pass the course.*** Final letter grades are based on: 100-92.5% = A; 92.4-90% = A-; 89.9-87.5% = B+; 87.4-82.5% = B; 82.4-80% = B-; 79.9-77.5% = C+, 77.4-72.5% = C; 72.4-70% = C-; 69.9-67.5% = D+; 67.4-62.5% = D; 62.4-60% = D-; <60% = F.

Academic Success and Support Services Please feel free to talk to me anytime about your performance in the course or possible ways you can improve. Academic support services are also available if you need them through Tutorial and Academic Skills Center (TASC) at 650-3855 or <http://www.wvu.edu/depts/tutorialcenter/home.htm> . If you need disability-related accommodations, please notify Student Support Services at 650-3083 (phone) or 650-3725 (TTY) or <http://www.wvu.edu/depts/drs/>

Attendance, Tardiness, Leaving Early, and Cell Phones

Once again, attendance is not mandatory but please understand that this is a lecture course and in order to get the information you will have to be in class taking notes. This is also true for lab.

Tardiness is somewhat difficult because there is always a good reason for being late. Late arrivals and early departures disrupt everyone so please be considerate of your fellow students. If you arrive/leave during class, take the first available seat you can find.

Regarding cell phones... under NO circumstances should a cell phone ring or ever be answered in class. If you are waiting for an important call, turn your ringer off or please wait outside. If your cell phone rings in class, you will be asked to “voluntarily” contribute \$2 to the Western Foundation for each ring. If you answer your phone in class you will be asked to leave the class for the quarter.

WINTER 2008 SCHEDULE (TENTATIVE)

DATE	SUBJECT	READING
Wed. Jan. 9	Intro/ How Science Works	Prelude, blackboard
Fri. Jan. 11	Earth Formation and structure	Chapter 12.14, 12.15
Mon. Jan. 14	Plate Tectonics Revolution	Chapter 3
Wed. Jan. 16	Plate Tectonics	Chapter 3
Fri. Jan. 18	Age of the Earth and Absolute Dating	Chapter 9
Mon. Jan. 21	MLK DAY - NO CLASS	----
Wed. Jan. 23	Catch-up and review	----
Fri. Jan. 25	First mid-term exam	----
Mon. Jan. 28	Atomic structure/Minerals	Chapter 4
Wed. Jan. 30	Rock Cycle and magma	Lecture, Ch 5
Fri. Feb. 1	Igneous Rocks, Plutonism, Volcanism	Chapter 5
Mon. Feb. 4	Weathering and Soils	Chapter 15.1 – 15.6
Wed. Feb. 6	Sedimentary Rocks	Chapter 7
Fri. Feb. 8	Metamorphic Rocks	Chapter 8
Mon. Feb. 11	Geologic Time and Dating	Chapter 9
Wed. Feb. 13	Wrap up, Catch-up day and Review	----
Fri. Feb. 15	Second mid-term exam	----
Mon. Feb. 18	PRESIDENT'S DAY - NO CLASS	----
Wed. Feb. 20	Hydrologic Cycle and Streams Intro	Chapter 16
Fri. Feb. 22	Streams continued	Chapter 16
Mon. Feb. 25	Oceans and Coasts	Chapter 14.1 – 14.9
Wed. Feb. 27	Groundwater	Chapter 17
Fri. Feb. 29	Wrap up, Catch-up day and Review	----
Mon. Mar. 3	Third mid-term exam	----
Wed. Mar. 5	Mass Movement	Chapter 15.7 – 15.14
Fri. Mar. 7	Earthquakes and Hazards	Chapter 10
Mon. Mar. 10	Volcanoes and Volcanic Hazards	Chapter 6
Wed. Mar. 12	Climate Change	Lecture; 13.10 – 13.15
Fri. Mar. 14	Wrap up, Catch-up day and Review	----
Thurs. Mar. 20	Final Exam for 9-10 class	(10:30 – 12:30)
Tues. Mar. 18	Final Exam for 11-12 class	(10:30 – 12:30)