

GLG 101 INTRODUCTION TO GEOLOGY I

Fall 2007 Syllabus and Lecture Schedule*

Section — TTh 9:15-10:30 p.m. (classroom)

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Course description: A study of the kinds and arrangement of materials composing Earth's landscapes and subsurface, and the geologic processes at work on Earth's surface and within its interior. The course will explore topics such as volcanoes, earthquakes, landslides, rivers, fossils, and energy resources.

Text: *Exploring Geology*, by Reynolds, Johnson, Kelly, Morin, and Carter, 1st Edition. This is a new and unique textbook designed to help you learn geologic concepts and processes on your own and to complement activities we do in class. Nearly all information in the book is built around illustrations and photographs, rather than being in long blocks of text. The entire book consists of a series of two-page spreads organized into chapters. Each two-page spread is a self-contained block of information about a specific topic. Each two-page spread has a short list indicating what you should be able to do before you leave these pages. A list of those items for which you are responsible (not all of them) is provided as a *What-To-Know List* (handed out in class). The *What-to-Know List* is your guide to what is important and all test questions are derived from this list. If you construct your own answer to each item on the *What-To-Know List* when studying from the book, then I predict that you will receive a high grade in the class. My recommendation is that you read a chapter AFTER we have finished discussing that chapter in class, except if an in-class investigation is scheduled for that chapter.

Each chapter in the textbook ends with an investigation about a virtual place. Some investigations will be done in class for points and others will be done as homework, either for points or simply in preparation for a test. The class schedule lists investigations done in class or for points as homework. Worksheets for each homework are available on Blackboard and can be printed out in color or black and white. If an investigation is scheduled in class, you are expected to have read the chapter before class time and to have printed out a worksheet to bring to class.

My philosophy and teaching method: I believe that science, including geology, should be a fun way of exploring and visualizing our natural world, not a static collection of facts. Accordingly, we will concentrate on understanding natural processes and how we explore and know things, rather than terms and factual trivia. We will do much active, inquiry-based learning, and will learn how to observe, think about, and understand our place in the natural environment. This class will try to develop skills that you can use in any profession and give you an appreciation of how geologic processes impact our environment and society. *Class time will not simply consist of me repeating via lecture everything that is in the book!* It is your responsibility and obligation to complete the required readings prior to quizzes. Class time may be used for clarifying textbook materials, introducing new material, applying principles and concepts, and engaging in small-group activity, discussion, and independent exercises.

Course expectations: My role in this class is to provide a framework that includes theory, best practices, activities, and assignments for you to utilize in development of understanding,

knowledge, and skills. I care very much about how and what you learn in this class, but I believe that you are responsible for participating in learning from the textbook and in-class opportunities. This class requires a certain amount of outside preparation and reading. It will be impossible to cover all topics in the textbook during class time.

Attendance: Each student is expected to attend all classes. Work missed during excused absences may be made up by *prior* arrangement with the instructor. It is the student's responsibility to inform the instructor of an excused absence as soon as possible. Absences for emergency situations may be excused unofficially by the instructor. Instructor-excused absences must be obtained *prior to or on the day of the student's absence*. Make-ups for such absences will be at the option of the instructor. *There will be absolutely no make-ups for unexcused absences.* Please contact me if you have circumstances arise that conflict with attending class.

Lab: In order to receive a laboratory science credit, you must also take the laboratory, GLG 103. The laboratory is *independent* of this class in terms of *registration* and *grades*. The lecture and lab compliment each other by covering different aspects of the same material. GLG 103 can be taken subsequently to GLG 101, but ideally should be taken the same semester.

Your grade: Based on the following (**approximately 400 points**):

- (a) **In-class assignments and class participation;** together, these are worth a total of **approximately 80 points**. In-class assignments will include individual or group exercises. Group exercises will require you to use a cooperative, team approach to solve multi-step investigations, such as finding oil or determining the origin of a groundwater contaminant. There is no possibility for “make-ups” of in-class assignments if you are absent (even excused absences), arrive late, or leave early. Most smaller in-class activities happen randomly and are not scheduled on the course outline.
- (b) **Homework assignments** will be worth a total of **70 points**: Homework activities will include two types of assignments: (1) concept-sketch answers to questions in preparation for a quiz, and (2) investigations at the end of the chapters, to be completed on worksheets and handed in. These assignments have specific due dates (see course schedule). I will accept late homework (up to one class period) but 30% will be deducted from your grade. You **CANNOT** turn in homework after the one-class grace period has passed.
- (c) **Quizzes:** Five quizzes, worth 50 points each for a total of **250 points**, will be given approximately every three weeks throughout the semester (see course outline). Each quiz will last approximately 45 minutes, and class will continue after the quiz – plan to stay the entire class period, rather than leaving right after the quiz. Many questions may be derived from topics presented in the book but not discussed in lecture (but listed on the *What-to-Know List*); in other words, *you are expected to read all of the two-page spreads that are assigned*. Use the *What-to-Know List* as your guide of what to study. Quiz formats will include multiple-choice questions and one or two concept sketches per quiz.

No quiz score will be dropped and you cannot make up a quiz; however, if you take all the quizzes during the semester, you do not have to take the optional final during finals’ week. You do, however, have the option of taking the final if you would like to replace one of your quiz scores. A higher score on the final than on your lowest quiz score will replace that quiz score. In the event you score lower on the final than any of your other quizzes, your original quiz scores will be used, but you may gain some points for a good-faith effort. If you have missed a quiz, you are *required* to take the final during finals’ week. The final will include chapters from all parts of the semester, with the students and instructor together deciding what chapters will be covered on the final.

All grades will be posted on Blackboard. You have one week after a grade has been posted to dispute an entry. After the one-week period, the grade stands as entered.

These assignments, for the most part, have definite due dates as noted in the course outline section of this syllabus. *Note: It is your responsibility to consult the course outline for assignment due dates.* The instructor will not assume the responsibility of reminding you that an assignment is due or that a quiz will be given.

Grades are not assigned by a “curve”. You are competing against my expectations, not your classmates. There is no predetermined percentage of “As”, “Bs”, etc. The exact division between letter grades will not be determined until the final points are totaled, but the grade breaks will not be higher than typical values (e.g., the A-B grade break will be 90% or lower, etc.).

Point Distribution Summary	
In-class assignments and class participation (approximate)	~55
In-class investigations (5 @ 5 points each)	25
Investigations done as homework (6 @ 10 points)	60
Concept sketch homework assignment prior to Quiz 1 (10 points)	10
Quizzes (5 @ 50 points each)	250
Total Points Possible (approximate)	~400

Field trips: Geology is best seen, learned, and taught outdoors. During the semester, we offer a field trip for their lab courses (GLG 103). This field trip gives you the opportunity to experience geology first hand. In addition to the field trip offered by the geology lab course, we plan to offer three or four field trips to local places to learn about the geology. You will receive no points for going on a field trip, but each trip is fun and interesting, and you’ll get some exercise and a chance to be outside.

Dates for withdrawals: There is a 10-week course withdrawal deadline—check the university calendar to find the course withdrawal deadline for this semester! The 10-week course withdrawal deadline is a no tolerance policy! When the 10-week period ends, students only have one option – complete withdrawal from all courses.

Incomplete grade: A mark of “I” is given only when a student who is otherwise doing acceptable work is unable to complete a course because of an illness or other situation beyond the student’s control. The student is required to arrange for the completion of the course requirements.

Tardiness: Although tardiness is generally discouraged, minor tardiness (less than 5 minutes) will be tolerated so long as the student does not disrupt the class. You will not, however, be allowed extra time to make-up for the time lost on timed quizzes. Remember, quizzes cannot be made up for non-emergency, unexcused absences, or absences that occur without prior notification to the instructor. *In-class point missed due to tardiness cannot be made up.*

Academic misconduct and academic dishonesty will not be tolerated. Students engaging in misconduct or dishonest practices on quizzes, homework, in-class assignments, or other assignments will be dealt with according to the guidelines established by the university. You

are encouraged to work together on homework and in-class investigations, but each student should use their own words to describe their results.

Class disruptions are defined as activities that distract the instructor or other students from the course content. Such activities include talking or whispering about unrelated matters during class time, compounding the disruption created by a student's tardiness with comments, noisily preparing to leave the class prior to the end of the period, etc. Disruptive students will be asked to leave the class. Repeat offenders may be withdrawn.

Audio/Visual recording: Neither audio nor video recording will be permitted except under special circumstances prescribed by the university Disability Resource Center.

Cellular telephones/text messaging/pagers: Please turn off all cellular telephones and pagers during class time – this includes text messaging. If your work situation requires that you be on call, please notify me prior to class.

Help along the way: Many students enter this class with a bit of anxiety. Other students may have various disabilities, including test anxiety, which may make traditional classroom environments very difficult. Fear not, almost all such students before you have actually passed this course – many with very high grades! If you are having difficulty understanding the course work, please contact either me or the teaching assistant immediately. Also, the university offers many programs to address the various needs of students. Please see me if you would like to be directed to learning centers, disability resource centers, counseling centers, or child-care centers.

***All due dates and distribution of grade points is subject to change according to class needs.**

Course Outline for GLG 101*

Week	Dates	Topic	Readings, Etc.
1	August 21	Overview of Class and Nature of Geology	Chapter 1
	August 23	Investigating Geologic Questions	Chapter 2
2	August 28	Plate Tectonics (Ch 1 Investigation homework due)	Chapter 3
	August 30	Plate Tectonics In-Class Investigation	Chapter 3
3	September 4	Quiz 1 (Concept sketch HW1 due); Begin Earth Materials	Chapter 4
	September 6	Earth Materials	Chapter 4
4	September 11	Igneous Rocks	Chapter 5
	September 13	Igneous Rocks	Chapter 5
5	September 18	Volcanoes and Volcanic Hazards (Ch 5 Investigation HW due)	Chapter 6
	September 20	Volcanoes and Volcanic Hazards	Chapter 6
6	September 25	Quiz 2; Begin Sedimentary Rocks	Chapter 7
	September 27	Sedimentary Rocks	Chapter 7
7	October 2	Deformation and Metamorphism (Ch 7 Investigation HW due)	Chapter 8
	October 4	Deformation and Metamorphism	Chapter 8
8	October 9	Geologic Time	Chapter 9
	October 11	Geologic Time	Chapter 9
9	October 16	Quiz 3; (Ch 9 Investigation HW due); Begin Seafloor and Continental Margins	Chapter 10
	October 18	Seafloor In-Class Investigation	Chapter 10
10	October 23	Mountains, Basins, and Continents	Chapter 11
	October 25	Earthquakes and Earth's Interior	Chapter 12
11	October 30	Earthquakes In-Class Investigation	Chapter 12
	November 1	Shorelines and Changing Sea Levels In-Class Investigation	Chapter 14
12	November 6	Quiz 4; Begin Weathering, Soil, and Unstable Slopes	Chapter 15
	November 8	Rivers and Streams (Ch 15 Investigation HW due)	Chapter 16
13	November 13	Rivers and Streams	Chapter 16
	November 15	Water Resources (Ch 16 Investigation HW due)	Chapter 17
14	November 20	Water Resources In-Class Investigation	Chapter 17
	November 22	Thanksgiving (Thursday and Friday, Nov 22-23)	No School
15	November 27	Energy and Mineral Resources	Chapter 18
	November 29	Energy and Mineral Resources In-Class Investigations	Chapter 18
16	December 4	Quiz 5 (all multiple choice questions)	None
		Last Day of School is Tuesday, December 4	
	December 6	Thursday, 7:40-9:30 a.m. (same room as usual)	Optional Final

*Course content may vary from this outline to meet the needs of this particular group. The instructor reserves the right to alter the schedule via verbal announcements or instructions in class. The student is responsible for noting such changes and acting accordingly, even if the student was absent on the day such announcements were made.