Geol 110-EARTH AND SPACE SCIENCE **Fall 2013 Syllabus and Lecture Schedule*** Several Sections (New Science Bldg, Room 2733 and 2734)	
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Course Description:

The Earth System is diverse and dynamic, featuring volcanoes, earthquakes, tsunamis, landslides, floods, hurricanes, tornadoes, and so on. As citizens, we want to understand what is going on in our natural world and which aspects directly affect us or are most interesting. Understanding past events helps us comprehend what has happened and begin to predict future events. With the Earth System (it's components being the Atmosphere, Hydrosphere-including ice, Biosphere, Geosphere and influences from Space or the Exosphere), we examine past events and current natural processes to understand how this past and these processes affect humans. We will examine Space, the evolution of the Solar System and how space affects Earth's systems.

Accordingly, this course looks at the processes and materials composing Earth's physical environment, for example, its landscapes, interior, air and water, and explores topics such as natural hazards and disasters, fossils, energy resources, and much more. This course also explores topics related to space, such as the evolution of stars and our solar system, and examines evidence of past impacts and the threat of impacts with space objects today. To do so, we will learn some underlying principles of the natural world, from small things like the very building blocks of matter (atoms), to large things, like the cause and effect of regional forces that build mountains (e.g., the Himalayas) and make new oceans (e.g., the Red Sea). These processes are active today on Earth, whether driven by the Sun or Earth's internal heat, and as mentioned above can culminate in earthquakes, volcanoes, landslides, ocean currents and hurricanes, all of which obviously affect humans.

This class meets weekly and is taught using a hybrid approach, partly as a normal lecture in the classroom during our normal meeting time, and partly as an online course, which you do on your own outside of class. During this time outside of class, you are required to complete online quizzes and other possible assignments for that week including a journal on natural disasters. There are online materials to help you complete the investigations and to prepare you for online quizzes, but the book is your best resource.

Textbook:

The Good Earth, by McConnell (and others), 2nd Edition. Three scientific themes are emphasized throughout the text: 1) scientific literacy; 2) Earth Science and the human experience; and, 3) the science of global change. This book will help you learn earth science concepts and processes on your own and complement what we do in class.

The *Key Concepts and Terms List* is your guide to what is important (found at the back of your class handbook), and all online quizzes are derived from this list. Required reading is listed in the right column of the *Lecture Schedule* later on in this document. If you revisit the chapter corresponding to the most recently finished lecture *after* we cover that topic, the material will be best retained.

Checkpoints are found on nearly every page in each chapter. These checkpoints consist of a wide variety of learning methods from construction of Venn Diagrams to filling in rubrics and constructing concept maps. These will be assigned as weekly homework questions found in your class handbook and on lecture slides, and are a key component to doing well on Exams.

Course Philosophy and Teaching Method:

The subject of Earth Science is as vast and diverse as the natural world around us. Together, we will explore and visualize this dynamic world in a number of ways; in no way will it be a static collection of facts. Accordingly, we will concentrate on understanding natural processes and how we explore and learn things about our planet, rather than terms and factual trivia. We will concentrate on active, inquiry-based learning and will learn how to observe, think about, and understand our place in the natural environment. The critical inquiry and observational skills that we cultivate this semester should be useful in any profession, since they give you an appreciation of how earth science processes in our natural world 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 working on lecture assignments, clarifying written materials, introducing new material, small-group activities, discussions, independent work projects, and/or identifying and applying principles and concepts, including in-class demonstrations.

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 the development of your knowledge, understanding, and skills. I care very much how and what you learn in this class, but I believe that you are responsible for participating in learning from the activities provided. This class requires significant outside preparation and reading. It will be impossible to cover all issues in the textbook during class time. This is partly why we use a hybrid approach in this course.

Attendance:

Each student is expected to attend all classes. 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*. It is the student's responsibility to inform the instructor of an

upcoming excused absence as soon as possible. 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 the instructor if you have circumstances arise that conflict with attending class. Please do not contact the instructor *after* any unexcused absence (re-read this paragraph if necessary).

Grades:

In this course, your grade will be based on points that you earn. There are approximately 770 possible points, which are spelled out below:

Point Distribution Summary*	
In-Class Exams (4 @ 60 points each)	240
Online Quizzes (11 @ 15 points each))	165
Lab Manual Checks (4 @ 20 points each)	80
Journal	84
Total Points Possible	~570

In-Class Exams (concept maps, sketches):

There are 4 total tests over three chapters each. **Each of the 4 in-class exams is worth 60 points, for a semester total of 240 points**. In advance of each in-class exam, you will be given a list of 6 to 8 possible concept-sketch/map/diagrams/rubric-type questions (see Class Handbook), and three of these will be on the exam. These possible questions will be developed from the checkpoints and learning sketches you complete in class. There will also be 30 multiple choice questions (some multiple choice questions taken directly from your quizzes). You can make up exams only if you have a note from a doctor, a letter from the university regarding some university-sponsored activity, a copy of a jury summons, a police report, or some other document that can be verified. This legitimate proof for why you cannot attend class that day must be provided to the instructor as far in advance of the exam as possible.

Online Quizzes:

For every chapter, on your own time outside of lecture, you will complete an online quiz using Blackboard that covers information from the textbook and from any online materials. **Each of the 11 online quizzes is worth 15 points, for a total of 165 points**. See the *Quiz Schedule* at the end of this syllabus for due dates. You can use your textbook or your notes to answer these quizzes, but not another person. Each quiz has a time limit of 45 minutes (and two attempts), which will not be enough to look up every answer from scratch during a quiz. In other words, you will need to read the textbook, view online materials, and study your notes *before* beginning

the time-limited online quiz. Use the *Key Concepts and Terms* as your guide of what to study in preparation for the online quizzes. Some of the quiz questions might relate to assigned readings that are not discussed in lecture; you are thus expected to read all of the assigned reading. Quizzes **close on the due dates**, no late or make-up quizzes.

In-Class Assignments (Class Handbook):

Throughout each chapter are "Checkpoints," which consist of a wide variety of learning methods. Some of these checkpoints along with lecture sketches have been assimilated to create your Class Handbook. We will work on most of these ckeckpoints/sketches in class as part of your weekly homework assignments. You are expected to complete all of you checkpoints/sketches prior to each in-class test. I will collect your class handbooks at the beginning of each test to check that you have worked on your associated assignments for each test (for example, during Test 1 which covers chapter's 1-3, I will check assignments for chapter's 1-3). These handbook checks will be worth 15-20 points (so complete all of the assignments to the best of your ability for full credit), **for a total of ~80 points.**

In-Class Participation:

During the semester, we might do a small number of in-class activities centered on the material covered during the lecture; these are unscheduled, unannounced activities at this time, and could be a way to gain extra points occasionally. Make sure to attend class or you will miss out on these activities, points that cannot be made up.

Journals:

Weekly journal entry required to be posted each Monday before midnight. This is a current events assignment to track natural disasters that occur throughout the semester; you will post your events through Blackboard. A total of 11 posts are required beginning on Monday, August 26th, each post worth up to 4 points each for a total of **48 points** by the end of the semester. You are not required to post events over the two holidays that fall on a Monday (Sept 2 and Nov 11). Your last post will be due on Monday, Nov 18.

Then you are required to submit the top ten that occurred during the semester (see Blackboard, click on "Journal" button for more; also a copy of the requirements is attached to your Class Handbook). This assignment worth **40 points**, and must be submitted as a file attachment by Monday, Dec 2 (through Blackboard). If you have been keeping up with events throughout the semester, it shouldn't take much work to put these together in an organized report and submit as a file attachment. We will discuss this more in class.

Due Dates:

The above assignments have specifically defined due dates as noted in the Course Schedule and Quiz Schedule later on in this syllabus. It is your responsibility to consult the Lecture Schedule and Quiz Schedule for all due dates. The instructor will not assume the responsibility of reminding you that an assignment is due or that an exam will be given.

Grade Posting:

All grades will be posted on Blackboard. *You have 7 days after a grade has been posted to dispute an entry*. After the 7-day period, the grade stands as entered. Do not wait until the end of the semester to check your grades. Grades are not assigned by a "curve", where a certain percent is assigned "A", "B", etc. Instead, you are competing against my expectations, not your classmates, and there is no predetermined percentage of "A", "B", and "C". The exact division between letter grades will not be determined until the final points are totaled, but the grade breaks will not be raised above typical values (e.g., the A-B grade break will be 90% or lower, etc.). No items are weighted—your grade is based solely on total points received.

Dates for Withdrawals:

There is a course withdrawal deadline—check the university calendar to find the course withdrawal deadline for this semester. The course withdrawal deadline is a no-tolerance policy. When the withdrawal period ends, students only have one option – a grade of F for the course.

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 with the instructor. The university does not allow instructors to assign a grade of "I" simply because a student has quit attending classes and/or completing assignments.

Tardiness:

Tardiness is discouraged since it disrupts class. Tardy students will not be allowed extra time to make-up for the time lost on timed exams. Remember, in-class exams and in-class points cannot be made up for non-emergency, unexcused absences, or absences that occur without prior notification to the instructor. **Points missed due to tardiness cannot be made up**.

Academic Misconduct and Academic Dishonesty:

This will not be tolerated. Students engaging in misconduct or dishonest practices on exams, quizzes, or other assignments will be dealt with according to the guidelines established by the college.

Class Disruptions:

These disruptions are defined as activities that distract the instructor or other students from the course content. Such activities include talking or whispering, cell phones ringing, tardiness or whispering about another tardy student, 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 DSPS. You are also not allowed to use the camera in your phone to record pictures or video, without expressed consent of the instructor.

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 the instructor prior to class. Text messaging is not permitted in this class.

Use of Laptops In the Classroom:

You are not permitted to use laptops in class during lectures or during work on lecture assignments/checkpoints from your class handbook (one exception is if you are using an electronic book for class, then you are permitted to use your laptop only during work out of the class handbook). You may use your laptop during breaks only as long as you are not disturbing your neighbors. If you use your laptop during lecture you will lose all in-class points for the day; and if you continue to use your laptop during unauthorized times or are disrupting other students you will be asked to leave the classroom.

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. Don't worry, almost all such students before you have passed this course – many with very high grades! The success of many of these students, though, was in part because they attended class regularly, took advantage of my office hours, or obtained help from their peers. If you are having difficulty understanding the course work, please contact me immediately. Also, the college has learning centers, disability resource centers, and counseling centers to address the various needs of students.

Lecture Schedule for Geol 110: Earth and Space Science, Fall 2013

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

Week of	Topic/Lecture/Test	Readings
Aug 19-23	Introduction; no lecture	Chapter 1
Aug 26-30	Chapter 1: Introducton to Earth Science	Chapter 2
Sept 2-6	Chapter 2: Earth in Space	Chapter 3
Sept 9-13	Chapter 3: Near-Earth Objects	Chapter 4
Sept 16-20	Test 1: Ch 1-3; Chapter 4: Plate Tectonics	Chapter 4/5
Sept 23-27	Chapter 4: Plate Tectonics	Chapter 5
Sept 30-Oct 4	Chapter 5: Earthquakes	Chapter 6

Oct 7-11	Chapter 6: Volcanoes	Chapter 7
Oct 14-18	Test 2: Ch 4-6; Chapter 7: Rocks and Minerals	Chapter 7/8
Oct 21-25	Chapter 7: Rocks and Minerals	Chapter 8
Oct 28-Nov 1	Chapter 8: Geologic Time	Chapter 13
Nov 4-8	Chapter 13: Oceans and Coastlines	Chapter 14
Nov 11-15	Test 3: Ch 7,8,13; Chapter 14: The Atmosphere	Chapter 14/15
Nov 18-22	Chapter 14: The Atmosphere	Chapter 15/16
Nov 25-29	Chapter 15: Weather Systems; Chapter 16 Climate	Last test next week
Dec 2-6	Test 4: Ch 14-16	

Quiz Schedule (through Blackboard) for Geol 110 Fall 2013*

Quizzes (below) are due on Blackboard by 11:59 p.m. on the day indicated.

Due by 11:59 pm on this date	Quiz Number/Chapter	Readings
Sept 1	Quiz 1, Chapter 1: Introducton to Earth Science	Chapter 1
Sept 8	Quiz 2, Chapter 2: Earth in Space	Chapter 2
Sept 15	Quiz 3, Chapter 3: Near-Earth Objects	Chapter 3
Sept 29	Quiz 4, Chapter 4: Plate Tectonics	Chapter 4
Oct 6	Quiz 5, Chapter 5: Earthquakes	Chapter 5
Oct 13	Quiz 6, Chapter 6: Volcanoes	Chapter 6
Oct 27	Quiz 7, Chapter 7: Rocks and Minerals	Chapter 7
Nov 3	Quiz 8, Chapter 8: Geologic Time	Chapter 8
Nov 10	Quiz 9, Chapter 13: Oceans and Coastlines	Chapter 13
Nov 24	Quiz 10, Chapter 14: The Atmosphere	Chapter 14

Dec 1	Quiz 11, Chapter 15: Weather Systems; Chapter 16 Climate	Chapter's 15/16

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

LIST OF CHECKPOINTS/SKETCHES

See Class Handbook for Checkpoints/Sketches to be assigned and/or worked on in class. These Checkpoints/Sketches are also found on Powerpoint Slides for each chapter.