Geology 100 - The Earth
Fall 2006 Syllabus - Section A

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Required Text *Earth - Portrait of a Planet,* S. Marshak, 2001 or 2005, contains CD-ROM

Office Hours Tuesdays and Thursdays 2:30 - 3:30 PM or by appointment. *I will be happy to spend one-on-one time after class or in my office with any student who would like to explore geology and the Earth more in depth.*

Lectures MWF 11:00 – 11:50 AM, 2245 Coover

Why study geology? Geology studies the planet we live on. If you wonder why there are earthquakes and tsunamis, what causes volcanoes to erupt, why there are different landscapes, why we have mountains and oceans, and how dinosaurs became extinct, you are in the right class!

What will you be able to achieve in this class? My main goal as a teacher is to help you become an informed citizen, help you answer the questions you have about our planet, and stimulate your interest and sense of inquiry. Since it takes more than a lifetime to learn all there is to know about our planet, I initially plan to guide you through a discovery process that covers the main aspects of Earth science and history at an introductory level. The class schedule is given as a guide for your readings and as road map but I will be happy to spend more time on any topic that you find particularly interesting or intriguing. Please feel free to let me know your preferences in class, by email, or through WebCT and I will do my best to accommodate your wishes.

What will you do to realize the promises of this course? Although you can pursue the goals of this course on your own, if you choose to attend this class, I strongly urge you to attend class on a regular basis. Studies have shown that students who attend class develop a stronger sense of involvement in the class, and this facilitates learning. Please read before coming to class the chapters of the textbook relevant to the topic we will discuss. The time that I will spend lecturing will be reduced to a minimum and we will have frequent in-class exercises and quizzes that are designed to involve you in the learning process. Eating, reading the newspaper, use of cellular phones, and conversing with classmates during class are very disruptive for the entire class and you should refrain from them.

Since experience is the best teacher, there will be interactive homework exercises to supplement what we will learn in class. Deadlines are set for your homework that will allow to you keep up with the flow of the course. I understand that sometimes you won't be able to complete the assignments on time and late homework won't be penalized. Just make sure it is submitted ASAP. It is OK to work with colleagues on assignments both in class and outside. Just make sure that your individual contribution is made clear and that you do not submit one assignment with several names on or identical assignments with different names.

Based on my experience, you should plan to spend 5-6 hours per week outside the class for the reading and homework assignments. Please use the week planner at the end of the syllabus to fit this time commitment into your schedule.

Evaluating your progress This course in introductory geology is intended to meet the needs of students whose goal is to satisfy a science requirement. You will have many opportunities to test your understanding of geological principles. Because learning from mistakes is an important part of the learning process, you will be given numerous opportunities to make mistakes without penalty. Quizzes, in-class activities, homework, and examinations all count towards your final grade. Extra credit activities (up to 3-4% of the total grade) also contribute towards the final grade and can be used to make-up for a

missed in-class assignment or to simply boost your course performance. A short survey will be given on the third day of class. The survey is intended to assess your current level of interest and understanding of volcanoes. In order to reward you for effort and to lessen any possible anxiety (*there is no expectation that you know any of the material covered in the survey*), the test will count as extra credit (up to 2%) toward your final course grade.

There will be three one-hour examinations given during the semester and one final exam. **No make-up exams will be given.** Instead, only your two best midterm exams will count towards your final grade. The exam will consist of two parts: first, you will have 30 min to complete the test on your own. This first part of the test will constitute 75% of your exam grade. After you hand in this first part of the test, you will be able to take it again and use your textbook, notes, and help from colleagues. This second part will count for 25% of the exam grade. The exams will all be comprehensive to allow you to monitor your progress in learning and will consists of mainly multiple-choice questions with a few short essay questions.

WebCT The syllabus, schedule of classes and assignments, grade book, lecture notes, updates, and announcement will be available through **WebCT.** Please note that ISU has upgraded the WebCT software to the new 'Vista' version this fall. If you have not yet used this version, please take some time to learn about the features. All students registered in the course will automatically be enrolled into WebCT. To log in to WebCT, you must have an ISU email account. Your WebCT login name is your ISU email name (the part of your email address to the left of @iastate.edu) and your WebCT password is your ISU password. *Please note that you can download the lecture notes from WebCT before class but the notes will be incomplete and you will need to come to class to fill in the gaps. I encourage you to download and print out the notes before class – this way you will have all diagrams and figures in front of you when you are in class.*

Grading The final course grade will be determined as follows:

Assignments	Weight
Midterm exams (best two of three @20% each)	40%
Final exam	20%
Homework assignments	20%
In-class assignments and quizzes	20%
Initial survey and other extra credit	>5%
Total	**>105%**

Each assignment contributes towards the final percentage that is a means that allows you and me to assess your proficiency in the course. Please note that I will not grade on the curve, so all of you can get an "A". In fact, for the past several years about 2/3 of the students worked hard enough to get B's or better. I have established a grading scale that is largely based on my experience teaching this class for several years. This scale gives tentatively an A to all students that have accumulated points equivalent to 88% or better by the end of the course. However, I will monitor the class progress throughout the semester and if I have misjudged, I reserve the right to "ease up" on the grading, but it will not be made more rigorous.

Special accommodations Please inform me as soon as possible of any unusual circumstance that may hinder your performance (e.g. physical disability, learning disability, family illness). If appropriate, bring a copy of your Student Academic Accommodation Request (SAAR) to me. The necessary accommodations will be made as warranted. If you have any doubt or question about requesting such accommodation, or if you do not have a SAAR, contact the Disability Resources staff at the Dean of Students Office (Phone 294-6624).

Tentative schedule for Fall 2006 Geology 100 (Section A)

Date	Topic	Text	Assignments (IC = In-class, HW = Homework)
21-Aug	Introduction		
23-Aug	Geology in the news	Prelude	
25-Aug	**Volcano survey**		
28-Aug	Plate tectonics	Ch. 3	IC: Observation: sea-floor pattern
30-Aug	Plate tectonics	Ch. 4	
1-Sep	Earthquakes and seismology	Ch. 10	HW: Virtual earthquake - due 8-Sep
4-Sep	**Labor day holiday**		
6-Sep	Earthquakes and seismology	Ch. 10	
8-Sep	Interior of the Earth	Ch. 2	
11-Sep	Dinosaurs		HW: Minerals in your life - due 13-Sep
13-Sep	Minerals	Ch. 5	
15-Sep	Minerals	Ch. 5	
18-Sep	**Midterm #1**		**Ch. 2, 3, 4, and 10**
20-Sep	Igneous activity	Ch. 6	IC: Describe a rock
22-Sep	Igneous activity	Ch. 6	HW: Volcanoes - USGS WWW page – due 25-Sep
25-Sep	Volcanism	Ch. 9	
27-Sep	Volcanism	Ch. 9	
29-Sep	Sedimentary rocks	Ch. 7	IC: Describe a rock
2-Oct	Sedimentary rocks	Ch. 7	
4-Oct	Weathering and soils	Ch. 7	
6-Oct	Weathering and soils	Ch. 7	
9-Oct	Streams and floods	Ch. 17	HW: Virtual discharge and flooding - due 20-Oct (also EC)
11-Oct	Streams and floods	Ch. 17	
13-Oct	Groundwater	Ch. 19	
16-Oct	Groundwater	Ch. 19	
18-Oct	Metamorphic rocks	Ch. 8	IC: Describe a rock
20-Oct	Metamorphic rocks	Ch. 8	
23-Oct	**No class**		
25-Oct	**Midterm #2**		**Ch. 3, 4, 5, 6, 7, 9, 10, 17, 19**
27-Oct	*Topic of your choice*		Submit your choice by email by Oct 15
30-Oct	Geologic time	Ch. 12	IC: Relative time; HW: Virtual dating - U/Pb - due 1-Nov
1-Nov	Geologic time	Ch. 13	
3-Nov	Geologic time	Ch. 13	IC: Geologic time exercise
6-Nov	Rock deformation	Ch. 11	IC: Silly putty!
8-Nov	Plate tectonics and the crust	Ch. 11	
10-Nov	**Midterm #3**		**Ch. 3, 4, 6, 8, 9, 10, 11, 12, 13, 17**
13-Nov	Glaciers and climate	Ch. 22	HW: essay on global warming - due 17-Nov
15-Nov	Glaciers and climate	Ch. 20	
17-Nov	Glaciers and climate	Ch. 23	
20-Nov	**Thanksgiving break starts**		
27-Nov	Deserts	Ch. 21	
29-Nov	Coasts and shoreline processes	Ch. 18	
1-Dec	Coasts and shoreline processes	Ch. 18	HW: Energy use in Iowa - due 4-Dec
4-Dec	Energy resources	Ch. 14	
6-Dec	Energy resources	Ch. 14	
8-Dec	Q/A session for final		
11-Dec	**Final exam week (Date/time TBA)**		

Academic dishonesty Please be aware of the University's policy on Academic Dishonesty. **Any student that cheats or plagiarizes will be immediately reported to the Dean of Students.**

Week planner

Please enter in this table the classes you are attending this semester, your work commitment, and other regular activities that you expect to be involved in throughout this semester. Please schedule also the time during the week (or in the weekend, if necessary) that you plan to dedicate to this course outside the class.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
8 AM						
9 AM						
10 AM						
11 AM	GEOL 100		GEOL 100		GEOL 100	
12 PM						
1 PM						
2 PM						
3 PM						
4 PM						
5 PM						
6 PM						
7 PM						
8 PM						