

**GEOS 110 Earth and the Environment
Fall Term, 2014**

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Office Hours: By appointment or stop by anytime.

Class: 9:10-10:10 a.m., MWF, Rm. 222, Julian S&M.

Laboratory: 8:00-9:50 a.m., T, Rm. 222, Julian S&M.

Text: Essentials of Geology, 4th edition (bundled with Geotours Workbook) by Stephen Marshak, 2013. W. W. Norton & Company, New York. ISBN 978-0-393-90113-9.

Course Outline and Tentative Schedule

<u>Week</u>	<u>Topic</u>	<u>Reading Assignment</u>
8/27	Introduction A Brief History of the Earth	pp. 1-7 pp. 8-26
9/1	Earth's Interior	pp. 26-33
9/8	Plate Tectonics	Chapter 2
9/15	Minerals Rock Groups and the Rock Cycle	Chapter 3 pp. 88-95; 210-215
9/22	Magma and Igneous Rocks	Chapter 4
Exam I (1 hour) – Wednesday, September 24		
9/29	Volcanoes	Chapter 5
10/6	Weathering	pp. 148-156
10/13	Sedimentary Rocks; Metamorphic Rocks	Chapters 6 & 7
Fall Break – Saturday, October 18 through Sunday, October 26		
10/27	Exam II (1 hour) – Wednesday, October 29	
11/3	Earthquakes	Chapter 8
11/10	Crustal Deformation and Mountain Building	Chapter 9
11/17	Geologic Time	Chapter 10
11/24	Exam III (1 hour) – Monday, November 24	
Thanksgiving Recess – Wednesday, November 26 through Sunday, November 30		
12/1	Streams	Chapter 14
12/8	Ground Water	Chapter 16
Final Exam (Comprehensive) – Tuesday, December 16, 8:30 – 11:30 a.m.		

Laboratory Schedule

<u>Lab #</u>	<u>Date</u>	<u>Topic</u>
1	9/2	Introduction to Geotours.
2	9/9	Measuring the Earth Using a GPS.
3	9/16	Minerals.
4	9/23	Minerals.
5	9/30	<u>LAB QUIZ I</u> : Minerals.
6	10/7	Rocks.
7	10/14	Rocks.
8	10/28	Field Trip to DePauw Nature Park.
9	11/4	<u>LAB QUIZ II</u> : Rocks.
10	11/11	Earthquakes.
11	11/18	Field trip to Shades State Park.
12	11/25	Topographic Maps.
13	12/2	Topographic Maps.
14	12/9	<u>LAB QUIZ III</u> : Comprehensive.

Course Goals

The goal of this course is to increase your understanding of planet Earth. You will learn about the materials that make up our planet and the processes that operate upon and within the planet to produce the various landforms and geological events that we witness daily. The basic concepts that you learn in this course combined with careful observation and an inquisitive mind will enable you to understand much of what you see in the natural world. Furthermore, in studying geology, I hope that you gain a deeper understanding of science in general. You should be able to differentiate between hypothesis and theory, and facts and interpretations. You should understand the scientific method, learn how science is actually done, and see the many ways that science is relevant to all our lives.

Course Organization

We will meet Monday, Wednesday, and Friday from 9:10-10:10 a.m. for lecture and discussion. Laboratory activities will take place on Tuesday from 8:00-9:50 a.m.

Grading

Your course grade is based on three semester exams, geotours worksheets, laboratory assignments, three laboratory quizzes, and a comprehensive final exam. These components are weighted as follows:

Exam I	15%
Exam II	15%
Exam III	15%
Final Exam	20%
Geotours Worksheets	10%
Lab Quizzes (3)	15%
Lab Assignments (4)	10%

A = $\geq 90\%$; B = 80-89%; C = 70-79%; D = 60-69%; F = $< 60\%$

(**Note:** I will lower these ranges slightly if warranted by the class grade distribution.)

Q Certification

You must successfully satisfy **both** of the following criteria to receive Q certification:

1. Average 75% on the geotours worksheets, lab assignments, and lab quizzes.
2. Receive a course grade of C- or better.

Class Policies

1. DePauw University is committed to providing equal access to academic programs and university administered activities with reasonable accommodations to students with disabilities, in compliance with the Americans With Disabilities Act and Amendments (ADAAA). Any student who feels she or he may need an accommodation based on the impact of a disability or learning challenge is strongly encouraged to contact Pamela Roberts, Director of Student Disability Services and ADA Compliance for further information on how to receive accommodations and support. Contact information for Student Disability Services is: 408 S. Locust Street, Suite 200, in The Memorial Student Union Building (765-658-6267). It is the responsibility of the student to share the letter of accommodation with faculty and staff members. Accommodations will not be implemented until the faculty or staff member has received the official letter. Accommodations are not retroactive. It is the responsibility of the student to discuss implementation of accommodations with each faculty and staff member receiving the letter.

2. Regular and punctual attendance is expected and monitored. Poor attendance and preparation for class will result in refusal on my part to give you reasonable attention and guidance in make-up work. I realize that an occasional absence is necessary, particularly if you are sick. You also may need to miss class because of an extracurricular activity that contributes to your overall education, career objective, or well-being (e.g., field trip for another class, job interview, professional conference, workshop participation, doctors appointment, student-athlete participating in a sporting event). Send me an e-mail message either before the missed class or soon after the missed class so that I know your reason for missing class. See the Student Handbook for the University policy on attendance:
[\(http://www.depauw.edu/handbooks/academic/policies/attendance/\)](http://www.depauw.edu/handbooks/academic/policies/attendance/)
3. Cell phone and computer use during class are not allowed. Use of your cell phone or computer is considered disruptive behavior because it distracts the students around you and it distracts me. Turn your cell phone to vibrate, turn your computer off, and put them both away so that they are out of sight for the entire class period. Placing your cell phone in the opening beneath the table is not considered out of sight. My phone is set to vibrate in the event of an emergency message broadcast from DePauw Public Safety. There may be rare instances where you might expect an important call during class (e.g., illness in the family; potential employer). Alert me before class starts that you are expecting an important call and you may leave class should you need to use your phone.
4. Food is not allowed in the classroom, however you may bring a beverage to class. Eat your breakfast before entering the classroom. Please clean up the table and your seating area after class so that the area is clean for the next person to use the seat.
5. Remain in your seat throughout the class session. Use the restroom before you come to class and do not move about the classroom during class. In rare instances, you may need to visit the restroom during class. Please feel free to do so, but don't make it a daily habit.
6. Make-up examinations are normally not given; however, I will consider requests for make-up exams on a case-by-case basis. Students who have legitimate conflicts (e.g., travel for athletic events or other extracurricular activities) should consult with me well in advance.
7. Academic dishonesty is not tolerated. Academic dishonesty includes, but is not limited to, cheating, fabrication, facilitating academic dishonesty by another student (e.g., allowing another student to copy your answers on a test, lab quiz, geotours assignment, or lab assignment), and plagiarism. Use of any electronic device other than a calculator during exams and quizzes is not permitted and is considered cheating. All students should read and understand DePauw University's Academic Integrity Policy, which may be found at:

<http://www.depauw.edu/handbooks/academic/policies/integrity/>

Students are encouraged to work and study together, particularly in the laboratory where collaboration can enhance learning. However, you should submit your work in your own words for grading. Violations will be handled in accordance with established University procedures as described in the Academic Integrity Policy.

Keys to Success in this Course

1. Read the assigned material in the textbook in advance of lecture over that material. As you're reading, note any questions that you have.
2. Ask questions. The only stupid question is one that is not asked. Because you will be responsible for material in each assigned chapter whether that material is specifically covered during lecture or not, it is essential to ask questions to clarify any concepts that you do not understand. Please do not be too shy, embarrassed, intimidated, afraid, etc. to ask questions.
3. Take good notes. Students with complete notes seem to do better in class. Try to write down the key material from the lecture and include as many sketches as possible. Rewriting your notes will make them more legible and orderly, plus it will help you focus on areas that are still unclear. Be careful of falling into "TV-watching mode", as it is easy to look at the pictures and not take down any notes.
4. Know the key terms at the end of each chapter (these are in **bold** in the chapter text). I will expect everyone to know these terms before I begin lecture and so I will not define the majority of the terms in lecture. If I use a term that you don't understand, please ask me to define it.
5. Use the glossary in the back of the book to help understand key terms.
6. Check out the internet. The companion web site for our text is <http://www.wwnorton.com/studyspace>. On this web site are additional materials & quizzes that will help enhance your understanding of the chapters. I **strongly recommend** that you use this site. You also can use a search engine to find additional web sites of interest.
7. Create your own study aids. Some people like to highlight text in the chapter, others like to make flash cards (these are available at the website mentioned in #6 above), and still others like to study in groups and discuss the material. Feel free to experiment with what works for you. In addition, the Academic Resource Center in Asbury Hall (room 115) has Q tutors and trained people available to help you refine and improve your study habits and techniques. Because different people have different learning styles and because I am not trained in that field, I struggle to help people with questions like "I studied really hard for this test, but I still got a bad grade. What should I do?" (in fact, the intent of these tips is to avoid this problem). I'm much more adept at answering geology-specific questions like "I've read the book and I don't understand strike-slip faults. Can you explain them?"

8. Study the material on a regular basis. Maintain good study habits by regularly working with the assigned material. “Cramming” just doesn’t work for most of us. Get comfortable with the material as we go along so that you don't fall behind.
9. Assess your learning weekly. Do this by taking the online multiple choice quizzes and by writing out the answers to the review questions at the end of each chapter. I will post the correct answers to the review questions on moodle each week. If you do not understand any of the answers after checking the chapter text, please ask me.
10. Study for exams and quizzes as an individual and then as a group. Different people study in different ways. I've found that it helps to study as an individual first (thinking about and learning the important concepts that were emphasized in each chapter & lecture), then get together with others and study as a group (e.g., asking each other questions, brainstorming about what will be on the test, etc.).

If you feel lost or frustrated with any aspect of this course, please talk to me so that we can work together to resolve your difficulties.