

GEL/ESC 1300G –Sections 5 & 6
Introduction to Earth Sciences
Spring 2007

Instructor: Matthew E. Brueseke (that's breeze-uh-key)

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Office hours:

M: 10:00 am - 12:00 pm

T: 1:00 -3:00 pm

W: 10:00 am - 12:00 pm

For the most part, if I am in my office, consider it an office hour. I am usually around all week, so just stop by! If, however, you would like to schedule a specific time outside of these hours, please talk to me after class or email me.

General course information

Lecture: T-R, 11:00 am – 12:15 pm, 3040 Physical Science

Lab time: M, W 3:00 – 4:50 PM, 2060 Physical Science (*make sure you come to the correct lab section!*)

Required text: *Physical Geology: Exploring the Earth*, 5th edition, Monroe and Wicander

Web sites

My website: <http://www.ux1.eiu.edu/~mebrueseke/> Check here often for course related announcements & WebCT.

Publisher's web site for the book: [http://www.brookscole.com/cgi-](http://www.brookscole.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=0534399878&discipline_number=30)

[wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=0534399878&discipline_number=30](http://www.brookscole.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=0534399878&discipline_number=30)

Scope of Course

During this course, I hope that you'll gain an appreciation of science and the world around us - specifically how geology can and does related to your life and community. Everyone should be able to discuss and give examples of the significance of geology to our everyday life and why it is important. Accordingly, this course seeks to provide a basic understanding of the physical nature of the Earth, as well as the fundamental processes that affect it.

Throughout the course, there are four important points that will be conveyed: [1] Geology, like other sciences, is based around investigation. This includes observation, constructing hypotheses, experimentation, and testing hypotheses; [2] Geology is an interdisciplinary science and geologists used interdisciplinary approaches to study the Earth; [3] Geologic processes function over a wide range of time-scales and have done so for billions of years; [4] Geologic concepts that are discussed in this class provide a foundation for addressing “environmental problems” (e.g. energy resources, mineral resources, drinking water, natural hazards, land use and development, and waste disposal) that currently affect us all and will affect you as future citizens. Understanding the geologic concepts that govern these problems will help you make better decisions in the future and will allow you to critically assess these problems so you don't have to depend on someone else to do your thinking.

Students with Disabilities (Whether learning, physical, psychiatric, or sensory)

Eastern Illinois University promotes equal educational opportunities for students with disabilities. If you have a disability and may need any assistance, please notify your instructor and make an appointment immediately with the Office of Disability Services (9th Street Hall, or Office Phone: 581-6583, Voice TTY: 581-6583, Fax: 581-7208, or <http://www.eiu.edu/~disabltty>)

Make ups, Missed, and Late Assignments:

“Make-ups” for missed quizzes, assignments, exams, labs, etc. will only be given for "accepted" absences such as illness with a doctor's note, or an athletic event with a letter from your coach. If a “make up” is allowed, discuss the reason with me ahead of time, not after the fact – Notification regarding absence from an exam must occur prior to the regularly scheduled exam. Documentation of the absence (e.g. a doctor's note) must be provided prior to the time of the scheduled make-up exam. Lab assignments are due one week from when they are assigned and late lab assignments will be not be accepted!!!

Attendance and Classroom policy

Attendance is not only required by the University, it is absolutely necessary to succeed in this class (so consider it required). You are in this class to learn, so disruptions will not be tolerated. Not only is this disruptive to me, but also to your fellow classmates. With this in mind, I ask that you arrive to the class on time and that there are no classroom conversations or other distractions. If you must talk, please take it outside, or I will ask you to do so.

Pagers, beepers, or cell phones are not allowed to ring in class. Also, cheating and plagiarism will not be tolerated. If you are caught cheating on an exam, lab, quiz, or other assignment, you will receive an “F” for the final grade in the course. Exams are the property of the instructor.

Grading: Grades in this course will be based on a number of different criteria. While it is certainly possible to “achieve” a “D” or “F”, typically students who have received those grades in the past either missed a test, did not come to class regularly, and/or did not turn in labs. Class attendance is necessary if you want to do well in this course!!! Requests for grades can only be made in person, so keep track of your points throughout the semester.

Labs: 120 points. Labs will cover the basics of physical geology including mineral and rock identification, topographic map interpretation, geologic structures, and hydrologic processes. There will be twelve labs that are worth ~19% of your grade total (due one week after we begin them) and late labs will not be accepted.

Lab Quizzes: 50 points. There will be two lab quizzes to test your knowledge of rock and mineral identification. The first will cover minerals and the second will cover rocks. Each quiz is worth 25 points and total represent ~8% of your grade.

Homework: 90 points. There will be three homework question sets assigned throughout the course. These will supplement lecture and laboratory material. Homework assignments are typically due a week after they are assigned and are worth ~14% of your grade. More to follow later!

Questions of the Day: 20 points. Ten times during the semester, Questions of the Day will be asked at the end of class. As such, they cannot be made up. The questions will concern some aspect of that day's lecture. Total value is ~3% of your grade.

Lecture Quizzes: We have six (6) scheduled thirty (30) point quizzes. These will be a combination of multiple choice or short answer questions, and you may be required to draw or label diagrams. Quizzes typically have ~15 questions on them. **Only the 5 highest grades will count toward your final quiz (and class) score!** These are worth ~24% of your total grade.

Midterm Examination: 100 points. The midterm will have the same format as the quizzes but will be approximately two - three times longer in the number of questions asked. This may include ideas presented in lab. The midterm is scheduled for Thursday, 1 March. This exam is worth ~16% of your total grade.

Final Examination: 100 points. The final examination will have the same format as the mid-term examination and will primarily cover material presented during the second half of the course. This may include ideas presented in lab. The final exam will last two hours and is scheduled for Thursday, May 5 from 2:45 - 4:45 PM. This exam is worth ~16% of your total grade.

Assignment	Points	Total
Labs (x 12)	10 pts. each	120
Homework (x 3)	30 pts. each	90
Lab Quizzes (x 2)	25 pts. each	50
Questions of the Day (x 10)	2 pts. each	20
Lecture Quizzes (x 5 highest)	30 pts. each	150
Midterm Exam	100 pts.	100
Final Exam	100 pts.	100
Total		630

The grading scale will be approximately 90 – 80 – 70 – 60, i.e., if you have greater than 564 points then you would earn an “A”, and so forth. Here’s the breakdown:

90% - 100% = A
 80% - 89% = B
 70% - 79% = C
 60% - 69% = D
 0 - 59% = F

Tutoring

The Geoscience Club, composed of geology and geography members, typically holds free tutoring sessions. If they do so again this semester, I will let you know. The members are very good at reviewing concepts covered in class and can also help you if you are having difficulties in lab. If you plan on attending, please bring all relevant course materials with you to the session.

Class Schedule (tentative and subject to change)

Reading assignments listed below should be completed before class - read the chapters and review the labs.

Week	Date	Day	Topics	Assignment	Lab
1	1/9	Tuesday	Introduction, General Concepts & Planetary Formation	Chapter 1	No Lab
	1/11	Thursday			
2	1/16	Tuesday	Planetary Formation continued, minerals, & Quiz 1 (Thurs.)	Chapters 1, 2	No Lab
	1/18	Thursday			
3	1/23	Tuesday	Minerals continued, Magma Generation, and Igneous Processes	Chapters 2, 3	Lab 1 - Minerals I
	1/25	Thursday			
4	1/30	Tuesday	Igneous Processes continued & Quiz #2 (Thurs.)	Chapters 3, 4	Lab 2 - Minerals II
	2/1	Thursday			
5	2/6	Tuesday	Weathering, Soils, Erosion, and Sedimentary Processes	Chapters 5, 6	Lab Quiz #1- Minerals
	2/8	Thursday			
6	2/13	Tuesday	Metamorphic Processes & Quiz #3 (Thurs.)	Chapter 7	Lab 3 - Igneous Rocks
	2/15	Thursday			
7	2/20	Tuesday	Geologic Time & Earthquakes	Chapters 8, 9	Lab 4 - Sedimentary Rocks
	2/22	Thursday			
8	2/27	Tuesday	Earthquakes continued and the Earth's Interior	Chapters 9, 10	Lab 5 - Metamorphic Rocks
	3/1	Thursday	Mid term examination		
9	3/6	Tuesday	Plate Tectonics, Structural Geology, and the Evolution of Continents	Chapters 12, 13	Lab Quiz #2- Rocks and Lab 6 - Geologic time
	3/8	Thursday			
10	<i>3/12 – 3/16 No classes- Spring Break</i>				
11	3/20	Tuesday	Plate Tectonics, Structural Geology, the Evolution of Continents, and Quiz #4 (Thurs.)	Chapters 12, 13	Lab 7 - Earthquakes
	3/22	Thursday			
12	3/27	Tuesday	Mass Wasting, Streams & Rivers	Chapters 14, 15	Lab 8 - Topographic Maps
	3/29	Thursday			
13	4/3	Tuesday	Streams & Rivers continued, Groundwater, and Quiz #5 (Thurs.)	Chapters 15, 16	Lab 9 - Geologic Structure/Maps
	4/5	Thursday			
14	4/10	Tuesday	Glaciation and Climate Change	Chapter 17	Lab 10 - Rivers
	4/12	Thursday			
15	4/17	Tuesday	Arid Environments and Quiz # 6 (Thurs.)	Chapters 18	Lab 11 - Hydrogeology
	4/19	Thursday			
16	4/24	Tuesday	Shoreline Processes	Chapter 19	Lab 12 - Campus Geology/TBA
	4/26	Thursday			
17	5/1	Tuesday	Final Examination: 10:15 AM – 12:15 PM		