

Syllabus: GEO 302E – Earth, Wind & Fire (Spring 2013)

Location: GEO 2.324

Time: MWF 11:00-12:00, plus scheduled lab section

Professor:

Joel Johnson

Office: EPS 3.136 (Shoch Building)

Office hours: Monday and Wednesday 3:00-3:45, or by appointment. I also have an open door policy: you are welcome to come other times and see if I am available to talk.

E-mail: joelj@jsg.utexas.edu

Phone: 512-232-5288

Optional Textbook

Living with Earth: An Introduction to Environmental Geology. by Travis Hudson, Prentice Hall, 1st edition (2010 or 2011). ISBN:9780131424470

BlackBoard Use

PowerPoint lectures will be available on BlackBoard, usually a short time before class begins. You will be responsible for printing your own lab handouts, and other documents as needed.

Overview:

This course is an introduction to key topics in Earth sciences for non-geoscience majors. I think of it as geosciences literacy—what every educated person should understand about the functioning of Earth and human environments.

Course Grading:

Six exams: Four Lecture, Two Lab exams (given in lecture): 80% of total grade.

The lowest score is 5% of grade, the other 5 exams are 15% each.

Exam grades may be curved (up), typically so that the class average is 80%.

However, this is not guaranteed.

Lab: 20% of total grade

Weekly Lab Assignments (10% of total)

Mandatory Attendance at Lab (10% of total)

Grades will be assigned as: A (100-93), A- (92.99-89.5), B+ (89.49-87), B (86.99-83), B- (82.99-79.5), C+ (79.49-77), C (76.99-73), C- (72.99-69.5), D+ (69.49-67), D (66.99-63), D- (62.99-59.5), F (< 59.5). +/- Grades will be used.

There are no make-up exams (lecture or lab). Exceptions will only be made if you have received official UT permission from Student Emergency Services to make up class work for certain dates. You will be expected to make up the exam as soon as possible following the exam date. Student Emergency Services is the place to get official excused absences for issues such as medical or family emergencies:

Student Emergency Services
(512) 471-5017
Student Services Building Room 4.104
<http://deanofstudents.utexas.edu/emergency/>

YOU MUST BRING PENCILS AND ERASERS AND YOUR UT ID CARDS TO ALL EXAMS. ALL OTHER NECESSARY MATERIALS WILL BE PROVIDED AT EXAMS.

Lecture Exams:

- Exam 1: February 11 (Monday)
- Exam 2: March 8 (Friday before spring break)
- Exam 3: April 8 (Monday)
- Exam 4: May 3 (Friday), last day of classes

Lab Exams:

- Exam 1: March 1, Friday, during lecture
- Exam 2: April 26, Friday, during lecture

While the exams are not cumulative, you are expected to accumulate knowledge from the course as a whole, and it is likely that several questions on later tests will be on topics that were covered prior to the previous exam.

The University Honor Code: “The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the University is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.” Students are expected to read and to strictly adhere to the University’s written policies on academic dishonesty. Cheating or plagiarism can result in a zero for the semester.

Sharing answers on Facebook is totally cheating.

A note to students with disabilities: Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259.

Earth, Wind & Fire (Spring 2013)

Date	Lecture Topic	Reading	Lab Topic
1/14/13	Introduction		No lab this week
1/16/13	The Earth System	Chapters 1,2	
1/18/13	History of Plate Tectonics	Chapter 3	
1/23/13	How Plate Tectonics Work #1		Plate Tectonics
1/25/13	How Plate Tectonics Work #2		
1/28/13	Earthquakes #1	Chapter 5	Earthquakes & Volcanoes
1/30/13	Earthquakes #2, Volcanoes #1	Chapter 6	
2/1/13	Volcanoes #2		

2/4/13	The Record in Rocks	Chapter 4	Geologic Time
2/6/13	Geologic Time-Relative Dating		
2/8/13	Absolute Dating		
2/11/13	Lecture Exam 1		Rocks and Minerals
2/13/13	Earth Surface Processes-Weathering & Soil	Chapter 8,11	
2/15/13	Mass Wasting & Subsidence		
2/18/13	Hydrosphere-Hydrologic Cycle	Chapter 10	Ground Water & Aquifers
2/20/13	Groundwater		
2/22/13	Water Resources & Pollution		
2/25/13	Rivers #1	Chapter 7	Lab exam 1 review
2/27/13	Rivers & Flooding		
3/1/13	Lab Exam 1		
3/4/13	How the Oceans Work	Chapter 9	Geologic Maps
3/6/13	Coastal Erosion and Storms		
3/8/13	Lecture Exam 2		
3/11-3/16	Spring Break Week		Waves & Sand?
3/18/13	Atmosphere-Structure & Composition	Chapter 14	Global Climate Change
3/20/13	Controls on Climate		
3/22/13	Climate Change Through Time		
3/25/13	Air Pollution & Climate Change		Waller Creek
3/27/13	Biosphere-History of Evolution		
3/29/13	How Evolution Works		
4/1/13	Life on Earth Through Time		Texas Memorial Museum
4/3/13	Extinction Events		
4/5/13	Hominoid Evolution		
4/8/13	Lecture Exam 3		Resources and Rocks
4/10/13	Minerals and Mining #1	Chapter 4, 12	
4/12/13	Minerals and Mining #2		
4/15/13	Resources-Fossil Fuels #1	Chapter 13	Geologic Tour of Campus
4/17/13	Coal, Natural Gas, Fracking		
4/19/13	Peak Oil		
4/22/13	Alternative Energy #1		Lab exam 2 review
4/24/13	Alternative Energy #2		
4/26/13	Lab Exam 2	Chapter 15	
4/29/13	Human Population and Impact on Earth		review, test return
5/1/13	Summary of class		Lab attendance optional
5/3/13	Lecture Exam 4		this week

Lab Syllabus

All lab sections meet in JGB 2.308

Teaching Assistants:

TA: Andrea Miller E-mail: annie.m@utexas.edu
Lab Sections: Monday 8-9:30 (27115), Tuesday 8-9:30 (27120),
Thursday 9:30-11 (27135).

TA: Chang Lu E-mail: Icer87@gmail.com
Lab Sections: Wednesday 12:30-2 (27155), Monday 2-3:30 (27165),
Wednesday 3:30-5 (27190).

TA: Lauren English E-mail: englishl@utexas.edu
Lab Sections: Monday 12:30-2 (27145), Tuesday 2:00-3:30 (27170),
Thursday 2-3:30 (27180).

TA: Peter Zamora E-mail: pbzamora@utexas.edu
Lab Sections: Monday 3:30-5 (27185), Wednesday 2-3:30 (27175),
Thursday 12:30-2 (27160).

TA: Rosemary Hatch E-mail: rlhatch@utexas.edu
Lab Sections: Monday 9:30-11 (27125), Tuesday 12:30-2 (27150),
Friday 9:30-11 (27140).

As described above, Attendance at lab is mandatory and 10% of your total grade. Weekly assignments are collectively 10% of the total class grade.

Attendance: You must attend the lab for which you are registered. You will not be allowed to attend another lab section without prior approval and a good reason.

If you must miss a lab, please contact your TA ahead of time to arrange a reasonable solution to the problem. In general, you will arrange to attend a different lab section run by YOUR TA. If this is not possible, you will arrange (with prior approval) to attend a different TA's section. This must be done in the given week of that lab. Even if you miss a lab, you are still responsible for completing the assignment (with assistance from your TA during office hours, for example).

Lab Assignments will be posted on Blackboard, but usually not until Friday afternoon of the week in advance of each laboratory. It is your responsibility to print these assignments and bring them with you to work on during your assigned laboratory.

Late Labs: Assignments will be due at the start of your lab the following week. Late lab assignments will not be accepted.

Grading discrepancies: if you think an assignment or test question was graded incorrectly, let me or the TA know as soon as possible after it is returned. It is your responsibility to promptly check the grading. No changes will be made to the grading of

an assignment or exam question after it has been handed back for one week. This applies to both lab and lecture.

Extra Credit/Lab Makeup opportunity: Find an article in SCIENTIFIC AMERICAN (a magazine) that relates to geological topics we have discussed in class. Read the article and summarize it in a paragraph, in your own writing. Then relate the article to topics we have discussed in this class, again in a paragraph. The total length of your writing should be approximately 1 page (10-12 point font, 1.5 line spacing). We want to see that you read the article, understood what it was saying, and understand how it relates to this course.

Turn in a PRINTED COPY of your summary, along with a PRINTED COPY of the article. We will definitely check to see if any writing was plagiarized. These must be turned in no later than the date of your second lab exam, to be handed in before the test begins. This extra credit may be used to replace one lab exercise. If you did not mass any lab (or counts as an additional lab assignment for extra credit). **Only one extra credit/makeup per student.**

Scientific American is available online to students through the UT libraries. The article you choose can be from any year of the magazine; searching the Scientific American website is an effective way to find articles of interest. From campus it may be directly accessible at: <http://www.nature.com/scientificamerican/index.html>. From off-campus, it should be available from links through the UT libraries:
<http://findit.lib.utexas.edu/utaustin/az>

Plagiarism: Copying sentences or recognizable parts of sentences and turning them in as your own writing constitutes plagiarism. Using quotes (“”) to identify this writing does not constitute plagiarism, but extensively using direct quotes it also does not meet the expectations of the assignment (because it is not in your own words). More information on UT plagiarism policies is given here:

http://deanofstudents.utexas.edu/sjs/scholdis_plagiarism.php