GEO 302E – Earth, Wind & Fire (Spring Semester, 2014)
Lecture: GEO 2.324
Time: MW 11:00-12:30
Lab/Discussion: JGB 2.308 (1.5 hr/wk by section)

Professor:

Gary Kocurek
Office: EPS 3.166 (Shoch Building)
Office hours: 1:00 – 2:00 MW, or by appointment.
Email: garyk@jsg.utexas.edu
Phone: 512-471-5855

Teaching Assistants:TBA

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 before class begins. It is expected that you have a computer with internet access or that you have access to these facilities. You will be responsible for printing your own lab handouts and other documents as needed. 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.

Overview:
This course is an introduction to key topics in Earth sciences for non-geoscience majors. We think of it as geosciences literacy—what any well-educated person should understand about the functioning of Earth and human environments. The class consists of lecture and lab/discussion sections that explain and demonstrate geologic phenomena that affect everyday life including global warming, earthquakes, volcanism, desertification, river and coastline flooding, groundwater, mineral resources and plate tectonics.

During both lecture and lab/discussion, topics are explored in theory, and using empirical and quantitative scientific data and observable facts. Students are required to analyze a variety of data in rigorous and creative ways to reach informed conclusions. Lab is particularly important for this course because students will work in small teams: (1) to work up data that critically explore topics, and (2) to summarize the group results in written and visual material that is presented to the class.

This course may be used to fulfill three hours of the natural science and technology (Part I or Part II) component of the common core curriculum and addresses the following four core objectives established by the Texas Higher Education Coordinating Board: communication skills, critical thinking skills, teamwork, and empirical and quantitative skills.

Course Credit:
Three Lecture Exams (25% each, 75% total)
Lab/Discussion (25% total)
- Two Lab Exams (15% of total grade)
- Weekly Lab Assignments (5% of total grade)
- Mandatory Attendance at Lab (5% of total grade)

Three lecture exams occur during the class period. Do not expect grades to be curved. Grades will be assigned as: A (100-90), B (89-80), C (79-70), D (69-60), F (< 60). +/- Grades will not be used.

There are no make-up lecture exams (lecture or lab). Exceptions will only be made if you have received official UT permission 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.

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.

Lecture Exams:
- Exam 1: February 19 (Wednesday)
- Exam 2: March 26 (Wednesday)
- Exam 3: April 30 (Wednesday)

Lab Exams:
- Exam 1: Week of 3/3-3/7
- Exam 2: Week of 4/28-5/2

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.

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 2012)

Date	Lecture Topic	Reading	Lab Topic
1/13	Introduction		No lab this week
1/15	The Earth System	Chapters 1,2	
1/20	MLK Holiday		Discussion: Science & Civilization
1/22	History of Plate Tectonics	Chapter 3	
1/27	How Plate Tectonics Work	Chapter 3	Lab: Plate Tectonics
1/29	Earthquakes	Chapter 5	
2/3	Volcanoes	Chapter 6	Lab: Earthquakes & Volcanoes
2/5	Minerals & Rocks	Chapter 4	
2/10	The Record Cycle	Chapter 4	Lab: Geologic Time
2/12	Relative & Absolute Ages	Chapter 2	
2/17	Review Session		Lab: Minerals & Rocks
2/19	Exam I		
2/24	Weathering & Soil	Chapter 11	Lab: Topographic Maps
2/26	Mass Wasting & Subsidence	Chapter 8	
3/3	Hydrosphere-Hydrologic Cycle	Chapter 10	Lab Exam 1
3/5	Water Resources & Pollution	Chapter 10	
	Spring Break		
3/17	Rivers & Flooding	Chapter 7	Field trip: Waller Creek
3/19	Coastlines	Chapter 9	
3/24	Review		Lab: Geologic Maps
3/26	Exam 2		
3/31	Atmosphere & Climate Controls	Chapter 14	Lab: Climate
4/2	Climate Change & Pollution	Chapter 14	
4/7	Mineral Resources	Chapter 12	Discussion: Climate Change
4/9	Conventional Energy Resources	Chapter 13	
4/14	Unconventional Energy Resources	Chapter 13	Discussion: Energy
4/16	Biosphere & Life Through Time	Chapter 2	
4/21	How Evolution Works	Chapter 2	Field Trip: Museum
4/23	Hominoid Evolution & Population		

4/28	Review Session	Lab Exam 2
4/30	Exam 3	