Course title: **GG101 DYNAMIC EARTH** - Spring 2008
Time and location: TR 9:00-10:15 (81768), TR 12:00-1:15 (88137), POST 723
Professor: Dr. Jennifer Engels, POST 713B, 956-8489, engels@hawaii.edu
Office hours: Any time: come by my office or call/email for an appointment

Text (optional): Grotzinger, Jordan, Press, Siever's ***Understanding Earth***, 5th Ed., 2007
E-book available for $56 at: **http://ebooks.bfwpub.com/earth.php**

FTP site: All lectures available in PowerPoint format the day before class at:
ftp://ftp.soest.hawaii.edu/engels/GG101/

Tentative schedule:

Week starting	**Topic**	**Reading**	**Lab**
Jan. 15	Solar system, Early Earth	Chapter 9	Intro
Jan. 22	Plate tectonics	Chapter 2	Maps
Jan. 29	Minerals	Chapter 3	Minerals
Feb. 05	Igneous rocks	Chapter 4	Igneous
Feb. 07	**Exam I**		
Feb. 12	Volcanoes	Chapter 12	Lava flows, rheology
Feb. 19	Weathering, Sedimentary rocks	Chapters 16 & 5	Sedimentary rocks & processes
Feb. 26	Metamorphic rocks	Chapter 6	Metamorphic rocks
***Mar. 01**	***SE O'ahu Field Trip with GG101 lab** (8:30am-3pm, transportation provided)*		
Mar. 04	Geologic time	Chapter 8	Geologic time, structural geology
Mar. 06	**Exam II**		
***Mar. 7-9**	***BIG ISLAND FIELD TRIP!** (Friday-Sunday, $150 + airfare)*		
Mar. 11	Relative & radiometric dating	Chapter 8	Mānoa Landslide
Mar. 18	Folds, Faults, Mountains	Chapter 7	Fossils
***Mar. 24-28**	***Spring Break! (Possible MAUI FIELD TRIP with GG103!)***		
Apr. 01	Earthquakes	Chapter 13	Earthquakes
Apr. 08	Surface water	Chapter 18	Streamflow
Apr. 10	**Exam III**		
Apr. 15	Groundwater	Chapter 17	Groundwater
***Apr. 16**	***Waihe'e Tunnel Field Trip** (8:30am-3pm, transportation provided)*		
***Apr. 19**	***Central O'ahu Field Trip with GG101 lab** (8:30am-3pm, transportation provided)*		
Apr. 22	Glaciers	Chapter 21	Beach profile
Apr. 29	Global warming	Chapters 15 & 23	Coastal processes
May 06	Review		
May 15	**Final Exams** (9:45-11:45 for 9am class, 12:00-2:00 for 12pm class)		

Grading:	#	% final grade
Exams (I, II, III, Final)	4 (equally weighted, non-cumulative)	60%
In-class activities/homework	11 (lowest score dropped)	25%
Field trip (of choice)	1	10%
iClicker participation	daily	5%
Optional extra credit activities	*1-3*	*up to 5%*

*Field trips (one required):
Off-island: (1) Big Island Field Trip, March 7-9; (2) Maui Field Trip w/ GG103, Spring Break
Oahu: (1) SE O'ahu w/ lab, Mar. 1; (2) Waihe'e Tunnel, Apr. 16; (3) Central O'ahu w/ lab, Apr. 19.

Department of Geology and Geophysics Learning Goals for the semester:

1) Explain the relevance of geology and geophysics to human needs, including those appropriate to Hawaii, and be able to discuss issues related to geology and its impact on society and planet Earth.
2) Apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
3) Use the scientific method to define, critically analyze, and solve a problem in earth science.
4) Reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
5) Evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

Missed work make-up policy and iClicker use policy:

1) Homeworks are due at the beginning of class on the day indicated on the homework assignment. In-class activities are due at the end of the class during which they are administered.

2) Homeworks and in-class activities may be turned in up to one week late with a valid excuse given in advance of the original turn-in date for 95% credit. No credit for assignments more than one week late.

3) iClicker participation points cannot be made up.

4) Missed exams may be made up during the one week period after the original exam date for 95% credit, provided a valid excuse for missing the original exam date is given in advance of the missed exam. Make-up exams may not be taken more than one week late.

5) If you know that you will need to miss class, consult with the professor in advance of your absence and arrange to take assignments/exams with you. Contact the professor by phone (956-8489), email (engels@hawaii.edu), or in person (POST 713B) if you need to miss class.

6) iClickers are property of the Department of Geology and Geophysics at the University of Hawaii.

7) Each student has been assigned an iClicker that they will use throughout the semester. This iClicker number is linked to their student ID and will be used to tally participation points during the semester (5% of final grade).

8) Students are responsible for returning iClickers at the end of each class session. Any missing iClickers will result in a hold on the final course grade for the student whose ID is associated with the missing unit.

9) Loaner iClicker units are available in case of missing/broken units, please notify the professor so that loaner unit points are correctly credited towards your class participation.

10) Any deviation from these guidelines is at the discretion of the professor.