GG 101 Dynamic Earth, Fall 2018
Class: T/R 9:00 – 10:15 AM in POST 703

Maunga Taranaki, Aotearoa

Contact information:
Dr. Peter Englert: POST 508B, 808-384-3500, penglert@hawaii.edu
Office Hour: T/R 11 am to noon, or by appointment

Required Text: Physical Geology 3rd Edition (C. Fletcher)
It is highly recommended that you buy, rent, borrow or share a copy of this book. Most of the lecture content can be found in this book.

We will be using Wiley Engage, an online platform that provides homework exercises. Engage comes as part of the digital text edition of Physical Geology. Instructions for how to enroll in Engage will be provided.

Course Description
The natural physical environment; the landscape; rocks and minerals, rivers and oceans; volcanism, earthquakes, and other processes inside the Earth; effects of human use of the Earth and its resources.

Instructional philosophy
The overarching goal of this course is for you to understand the nature of science through engagement with Earth and environmental science and to develop a lifelong interest in understanding how our planet works, the nature of human impact on it, and how you can take care of it. Learning tasks and assessments are designed to meet this goal.

Class contact hours
Tuesday/Thursday  9:00 to 10:15 am, POST 703
Learning Objectives/Course Objectives

University-Level Learning Objectives
The design and structure of the course delivers learning outcomes aligned with the University of Hawaii Institutional Learning Objectives for Undergraduate Students. The course:

- Gives in depth experience in the conduct of scientific inquiry and research;
- Engages students in continuous practice with critical and creative thinking;
- Is structured around procedures of conducting research in Earth science;
- Engages students through intensive interaction with instructors and peers by means of classroom activities and projects;
- Directly cultivates the habits of scholarly inquiry and intellectual curiosity, including inquiry across disciplines.

Department-Level Learning Objectives
This course will aim at meeting the following undergraduate student learning objectives, as established by the Department of Geology & Geophysics:

- Students can 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.
- Students can apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
- Students use the scientific method to define, critically analyze, and solve a problem in Earth science.
- Students can reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
- Students can 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.

Course-Level Student Learning Objectives

- Students can explain how the Scientific Method works, apply it to evaluate good vs. bad science and to analyze and assess data and draw conclusions about the world.
- Students develop a better understanding and appreciation for the world we live in, especially our home planet Earth; and
- Students demonstrate improved communication and teamwork skills by collaborating in writing, presenting, displaying and communicating knowledge, analysis, synthesis of data and ideas throughout the course.

Website
Computer access is required for this course. Pre-class assignments and course material is posted on Laulima. Please check for pre-class assignments before the next class period in the GG 101 Resources folder!
Topics
Ocean Circulation (Chapter 1)
Plate Tectonics, Metamorphic Rock, Earth Origin (Chapters 2, 3, 9)
Volcanoes, Minerals, Igneous Rock (Chapters 4, 5, 6)
Weathering, Sedimentary Rock (Chapters 7 and 8)
Mountain Building, Earthquakes (Chapter 10 and 11)
Geologic Time, Earth History (Chapter 12 and 13)
Climate Change, Glaciers (Chapter 14 and 15)
Surface Water, Groundwater (Chapter 17 and 18)
Coastal Geology (Chapter 20)
Plankton, Marine Sediment, Reefs (Chapter 21)

Homework
During the semester you will be required to complete homework assignments that are designed to support and assess your understanding of the material covered in the course text, and in lecture. A significant part of homework will be assigned through Wiley Engage. The due dates for this set of homework are listed and controlled by the Wiley Engage program. There will be additional homework problems that you are to complete and submit at the beginning of class on the due date.

Attendance
Attendance in class is essential. There will be up to 15 quizzes throughout the semester at random at the beginning or end of class. Each missed quiz will lead to a 1% deduction from your grade point achievement.

Grading
Grading is not curved and will be based on 3 exams (70%). Each exam is cumulative. Contributions to your grade will come from online homework and additional homework, and from participation in class.

Percentage Activity
5% Participation
15% Online homework
10% Individual homework
20% Exam 1
20% Exam 2
30% Exam 3

Letter grade breakdown:
A- = 90 – 92%, A = 93 – 96%, A+ = 97 – 100%
B- = 80 – 82%, B = 83 – 86%, B+ = 87 – 89%
C- = 70 – 72%, C = 73 – 76%, C+ = 77 – 79%
D- = 60 – 62%, D = 63 – 66%, D+ = 67 – 69%
F = < 60%

Extra Credit
Opportunities for extra credit will be announced during the semester.
**Plagiarism**
You will be preparing short written reports and short oral presentations for each project. DO NOT JUST COPY text from the Internet or from a book without a citation. Put your findings in your own words. Plagiarized text in a group report will result in a grade reduction by 2 levels (e.g., grade drop from an A to a C) for the first occurrence. A second occurrence will result in a zero for that project.

**Other Resources**
Disability Access:
The Geology and Geophysics Department will make every effort to assist those with disability and related access needs. For confidential services, please contact the Office for Students with Disabilities (known as “Kokua”) located in the Queen Lili'uokalani Center for Student Services (Room 013): 956-7511, kokua@hawaii.edu, www.hawaii.edu/kokua

Learning Assistance Center (LAC) is here to help students:
- Use appropriate study skills to achieve academic goals.
- Learn how to adjust learning approaches to fit their individual learning needs.
- Learn how to study effectively with others.
- Use effective learning practices.
- Use self-reliant learning behaviors.
- Have a functional understanding of course content.

www.manoa.hawaii.edu/learning

**Gender-Based Discrimination or Violence**
University of Hawaii is committed to providing a learning, working and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking. If you or someone you know is experiencing any of these, the University has staff and resources to support and assist you. Staff can also direct you to community resources. Here are some options:
- If you wish to speak with someone CONFIDENTIALLY, contact the confidential resources available here:
  http://www.manoa.hawaii.edu/titleix/resources.html#confidential
- If you wish to REPORT an incident of sex discrimination or gender-based violence, contact: Dee Uwono, Title IX Coordinator, Hawai‘i Hall 124, t9uhm@hawaii.edu, (808) 956-2299
- As members of the University faculty, your instructors are required to immediately report any incident of potential sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and your instructors cannot guarantee confidentiality, you will still have options about how your case will be handled. Our goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.