GG 101L: Dynamic Earth Lab

General Information

*IMPORTANT:* Please review other course resources in the *Table of Contents* to the left.

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Course Description

**Welcome**

GG 101 Lab - Hands-on study of minerals, rocks, and topographic maps. Examine volcanism, hydrology, coastal processes and hazards, geologic time and earthquakes. Field trips to investigate landslides, beaches and O‘ahu geology. A-F only. *DY*

Geologists work and study in the lab and in the field; the natural world is their classroom. Exciting and relevant areas of research and study in the field of geology include, but are not limited to:

- Minerals
- Rocks
- Soil
- Earth's Interior
- Plate Tectonics
- Earthquakes
- Volcanoes
- Mass Movement
Course Goals

This course consists of sixteen modules covering the following concepts. Each module will last approximately one week. Additionally, more specific objectives will be provided during the course for each module:

Module 1 – Provides an introduction to geology lab exercises and the course format

Module 2 – This module introduces you to minerals & rocks via hands-on lab preparation.

Module 3 – This module prepares you to work with minerals & rocks via hands-on lab.

Module 4 – This module introduces you to Field Study Techniques via hands-on lab preparation.

Module 5 – This module prepares you to work with Field Study Techniques via hands-on lab in the field.

Module 6 – This module introduces you to soils & soil characteristics via hands-on lab preparation.

Module 7 – This module prepares you to work with soils and soil characteristics via hands-on lab in the field.

Module 8 – This module will deliver the midterm online assessment (discussion board reflection).

Module 9 – This module introduces you to geologic maps and topographic analysis in Imiloa 113.

Module 10 – This module prepares you to work maps and topography.

Module 11 – This module covers mapping and topography via hands-on lab in the field.

Module 12 – This module covers volcanics via hands-on lab in the field.

Module 13 – This module introduces you to landscape evolution via hands-on lab preparation.

Module 14 – This module prepares you for landscape evolution via hands-on lab

Module 15 – This module prepares you for landscape evolution via hands-on lab

Module 16 – This module prepares you for landscape evolution via hands-on lab

At the end of this class, students will be able to:

• 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 Readings and Resources

Textbooks:

**Required:** This course uses a free geology textbook. See the [Geology Open Text Module Link](#).

Learning resources:

**Lectures:** Any additional lectures will be posted in the Syllabus below and the Weekly Module Resources page.

Course Communication

News and Announcements

The News and Announcements Forum, linked under the Course Communication Center module on our course's home page, serves as a way for me to make announcements within our virtual learning environment. All students are automatically subscribed to this forum and will receive a duplicate email of each message posted within it.

Discussion Forum

The discussion forum will be used for the submission of some assignments and for communication with other class members on topics of interest to the whole class. In some cases you will be asked to discuss assignments and translation approaches and techniques that you have used for your language pair and compare them to what others have done. You may also be asked to discuss how you have approached such issues as cultural problems and how you have overcome them so that other students in the class can benefit. All forums are public. Therefore, whatever is posted can be seen by everyone in the course. If you want to send a private message, use email.

Email

Course participants can also use email to communicate with me, group members, and each other privately. Please copy me on all communications using email so that I can keep up on what's going on.
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<th>Topics</th>
<th>Assignments</th>
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<td>Syllabus Review</td>
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<td>Week 1 Module (January 9 - January 15)</td>
<td>Intro to Geology Lab Course</td>
<td>Field Trip Protocols, Safety Protocols, Lab Reflections - Discussion Board Topics</td>
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<td>Week 2 Module (January 16 - January 21)</td>
<td>Rocks and Minerals</td>
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<td>Rocks and Minerals</td>
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<td>Waikalua Loko Fishpond Field Study Lab Prep</td>
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<td>Week 5 Module (February 6 - February 12)</td>
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<td>Waikalua Loko Fishpond Field Study Lab Lab Reflections - Discussion Board Forum #2</td>
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<td>Soils</td>
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<td>Soils</td>
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<td>Geologic Mapping</td>
<td>Lab Reflections - Discussion Board Forum #4</td>
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<td>Week 10 Module (March 13 - March 19)</td>
<td>Geologic Mapping</td>
<td>Interpreting Geologic Maps Lab @ Imiloa 113</td>
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<td>Week 11 Module (March 20 - March 26)</td>
<td>Geologic Mapping</td>
<td>Campus Mapping Lab Prep</td>
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<td>Spring Break (March 27 - April 2)</td>
<td>Optional Day Field Trip</td>
<td>Field Trip to North Shore w/Kapunas Lab Reflections - Discussion Board Forum #6</td>
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<td>Module</td>
<td>Topics</td>
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<td>Week 12 Module</td>
<td>Volcanics</td>
<td>Kapa'a Quarry Field Trip</td>
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<td>(April 3 - April 9)</td>
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<td>Lab Reflections - Discussion Board Forum #7</td>
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<td>Week 13 Module</td>
<td>Landscape</td>
<td>Landscape Evolution Lab Prep</td>
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<td>(April 10 - April 16)</td>
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<td>Week 14 Module</td>
<td>Landscape</td>
<td>Field Trip to Waianae</td>
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<td>(April 17 - April 23)</td>
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<td>Lab Reflections - Discussion Board Forum #8</td>
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<td>Week 15 Module</td>
<td>Topography</td>
<td>Field Trip to Kawainui Marsh</td>
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<td>(April 24 - April 30)</td>
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<td>Lab Reflections - Discussion Board Forum #5</td>
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<td>Week 16 Module</td>
<td>Island</td>
<td>Field Trip to Coconut Island</td>
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<tr>
<td>(May 1 - May 7)</td>
<td>Topography</td>
<td>Lab Reflections - Discussion Board Forum #5</td>
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<tr>
<td>Finals</td>
<td>Lab Final</td>
<td>Final Course Reflection - Discussion Board Forum</td>
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Geologic Mapping (highlight) denotes online meeting.

*(Note: reading/writing assignments should be completed on the date listed in the course calendar.) This calendar is subject to change. Students are expected to make note of any changes made.

- 01/17/2017    Last day to drop (No "W" on transcript)
- 01/18/2017    Last day to receive 100% tuition refund
- 01/30/2017    Last day to receive 50% tuition refund
- 03/10/2017    Last day to withdraw from class ("W" on transcript)

Course Requirements

- **Discussion Forum: (300 points total- 30 points for each activity).** The student will complete ten discussion board assignments on the selected field activities in this lab course from the course text. This will include a lab writeup and reflection on the field activity or lab we performed that week. The purpose of these assignments is to reflect on the field lab assignments and facilitate open discussion of course topics between students in the class. For discussion boards, you will be required to post a response based on the prompt posted by your instructor. The topics for each discussion board will be posted on the course website.

Students are asked to respond to assignment discussion topics with thoughtful commentary, incorporating readings and other class materials into their posting.
Participation: (200 points total - 20 points for each activity). There are 10 Field Lab @ 20 points each. You will be graded on attendance for field labs and activities. You will lose points for being late to field trips etc..

Netiquette

The best possible experience in discussion forums and in e-mail exchanges occurs when respect is shown to all participants. When addressing other people on the discussion forums, think about the impact of your words and remember that unlike face-to-face communication, those you communicate with cannot see the expression on your face or hear the intonation in your voice.

Try to be brief and to the point. Answer questions but do not be drawn into arguments. The discussion forum is not the place for political arguments or for discussion of inappropriate topics.

If you cite someone else’s ideas, make sure to give them credit.

Peer Feedback

Collaborative learning is a part of this course. Students are expected to provide quality feedback to their peers. Some of the ways that this can be done in this course include the following:

- Be nonjudgmental and provide specific examples if discussing the work of someone else
- Cite examples from your own work or cite other research as a way to make your point
- Make suggestions that are easy to understand and make sense. Suggest specific processes that a person might use to solve a particularly difficult problem.

Grading

Grade breakdown will be as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Occurrences</th>
<th>Total Points</th>
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</thead>
<tbody>
<tr>
<td>Discussion Board Lab Reflections</td>
<td>10 x 30 points</td>
<td>300</td>
</tr>
<tr>
<td>Field Lab Participation</td>
<td>10 x 20 points</td>
<td>200</td>
</tr>
</tbody>
</table>
Calculation of grade: The final letter grade for this course will be determined on the basis of the total number of points and will follow the normal University of Hawaii grading system. Thus, the letter grade is determined by the percentage of points accumulated, based on the following scale:

A - 90%-100%  (450- 500 points)
B – 80%-89%   (400-449 points)
C – 70%-79%   (350-399 points)
D – 60%-69%   (300-349 points)
F – 0 -59%    (<300 points)

Please note that “N” grades are not given for this course.

Grades may be curved at the instructor’s discretion; however, the student should use the above grading scale to evaluate their performance throughout the class. If you miss an examination because of an illness or legitimate emergency, you must contact the instructor within 48 hours to arrange a time to take a make-up exam. The instructor will request that the student present evidence of the illness or emergency that caused the student to miss the exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. No retests will be given for any reason.

Attendance and Class Preparation Policy

This is an online class and students are expected to keep pace with module assignments. Students are required to complete reading and writing assignments by the posted deadlines, and interact with the instructor and other members of this online class using the delivery platform with professionalism. There will be no make-up work. As in real life, no assignments will be accepted late. In case of illness or other serious emergencies, please provide documentation and notify the instructor by e-mail. Students may not stop and restart the class.

Please read the University of Hawaii Policies on Academic Integrity

See the E7.208 University of Hawaii Systemwide Student Conduct Code

The UH Student Conduct Code shall apply to conduct that occurs on UH premises, at UH sponsored activities, in distance/on-line courses and events, and to off-campus conduct that affects the UH Community and/or the pursuit of its objectives. Each student shall be responsible for his/her conduct from the time of application for admission through the actual awarding of a degree.
Additional Information

STUDENT RESPONSIBILITIES

The student is expected to view all lectures, participate in all course activities, and complete all examinations and course assignments on time. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced ahead of time on the course website or by UH email. Students should check their UH email address regularly (at least every 48 hrs.) so that they can be informed of course changes in a timely manner. It is the student’s responsibility to be informed of these changes. It is also the student’s responsibility to be informed about deadlines critical to making registration changes (e.g., last day for making an official withdrawal).

HOW TO SUCCEED IN THIS CLASS

Although you can download all lecture outlines and course materials, you will not succeed in this class without reading your textbook and taking detailed notes. Merely reading the chapter will not suffice. Science courses at WCC generally require a minimum of three hours of independent study time for each hour in class. It is your responsibility to allocate the appropriate amount of time needed for study and be realistic about all personal and professional commitments that may cut into your study time.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Akoakoa 213 for more information.