ERTH101 Lab, Fall Semester

SYLLABUS

ERTH101L is where you learn how to learn Geology and Geophysics (i.e., learning by doing). We will teach you geological and geophysical content, teach you how geologists and geophysicists know this content, give you a bit of quantitaitve practice with real data, and get you outdoors where real things happen.

| Personnel | Office | E-Mail | Office Hours |
|-------------------------|--------|------------------|---------------|
| Dr. Scott Rowland | 617A | scott@hawaii.edu | W 10:00-12:00 |
| + 3 teaching assistants | | | |

| We | eek# | Lab | Reading to do prior to lab | SLOs* |
|-----------|------|---|----------------------------|------------|
| 1 | #1: | Introduction | | 1, 2, 3 |
| 2 | #2: | Maps (in the Field) | Chapter 6 | 2 |
| 3 | #3: | Minerals | Chapters 1, 2 | 2, 3, 5 |
| 4 | #4: | Igneous Rocks | Chapter 3 | 2, 3, 5 |
| 5 | #5: | Lava Flows & Rheology | Handout | 2, 3, 5 |
| 6 | #6: | Sedimentary Rocks | Chapter 4 | 2, 3, 5 |
| 7 | #7: | Metamorphic Rocks (partly in the field) | Chapter 5 | 2, 3, 5 |
| 8 | #8: | Earthquakes (in the field) | Chapter 16 | 1, 2, 3, 5 |
| 9 | #9: | Geologic Time (in the field, sort-of) | Chapter 13 | 2, 5 |
| 10 | #10: | Structural Geology | Chapters 14, 15 | 2, 5 |
| 12 | #11: | Mānoa Landslide (in the field) | Handout | 1, 2, 3 |
| 13 | #12: | Streamflow (in the field) | Chapter 8 | 1, 2, 3 |
| 14 | #13: | Groundwater | Chapter 9 | 1, 2, 3 |
| <i>15</i> | | THANKSGIVING (no labs) | | |
| 16 | #14: | Fossils | Chapters 10, 11 | 2, 5 |
| 17 | #15: | Beach Profile (in the field) | Chapter 11 (note | 1, 2, 3, 5 |
| | | | two chapter 11s) | |

Required Text: Lab Manual for GG101L (Prentice Hall custom edition for UH Mānoa).

Required Equipment: Pencil, eraser, calculator, brain, eagerness to learn, interest in how the Earth works, sunscreen and water for field trips.

ALL LABS AND HOMEWORK <u>MUST</u> BE DONE NEATLY - YOU WILL LOSE POINTS FOR MESSY WORK! HOMEWORK WILL COVER THE READING FOR THE CURRENT WEEK. THIS WILL INSURE THAT YOU DO THE READING <u>BEFORE</u> YOU COME TO LAB! MORE POLICIES ARE LISTED ON THE BACK. NO SMART PHONES IN CLASS UNLESS SPECIFICALLY CALLED FOR.

| | | | | 90-100% = A |
|---------------------|----|-------------|-------|-------------|
| Grading: | # | points each | total | 80-89% = B |
| Labs | 15 | 20 | 300 | 70-79% = C |
| Saturday field trip | 1 | 60 | 60 | 60-69% = D |
| Homework | 14 | 5 | 70 | <60% = F |
| TOTAL | | | 430 | |

Kōkua: If you have a disability and related access needs the Department will make every effort to assist and support you. For confidential services students are encouraged to contact the Office for Students with Disabilities (known as *Kōkua*) located on the ground floor (Room 013) of the Queen Lili 'uokalani Center for Student Services.

ERTH 101 Lab Policies

- 1. Unless you have a note from your Doctor or Coach, you will not be allowed to make up a missed lab. If you are allowed to make up a lab, this must occur within one week of the missed lab. If you know in advance that you will miss a lab, you are welcome to show up for a different section, but make sure to get an OK to do this from both your TA and the TA teaching the lab you'll be attending.
- 2. We have made an effort to have as many as possible be outdoors. This is where geology is learned the best. But it means that you shouldn't wear your best prom clothes on those days. Field days are indicated on the syllabus, and we'll try to remind you the prior week. For photos of some previous years' ERTH101L students having fun in the sun, go to: http://www.soest.hawaii.edu/GG/FACULTY/ROWLAND/GG101L_webpage01.htm
- 2. Homework must be turned in **at the beginning** of each lab period. No late homework will be accepted.
- 3. The labs are designed to be completed in the 3 hours allotted in the schedule, and many **will require the full 3 hours**. Labs must be turned in by the end of the lab period.
- 4. You are required to go on one of the O'ahu field trips, and this field trip will be worth 3 labs. It is part of the coursework it is not extra credit. For photos from previous years' field trips, go to: http://www.soest.hawaii.edu/GG/FACULTY/ROWLAND/GG101L/Field_Trips/GG101L_Field_Trips_webpage01.htm
- 5. If you go on a neighbor island field trip and write 2 pages about something geological you learned, it can count as your one required field trip. The Kīlauea trip will give you a chance to see young Hawai'i geology, and hopefully even some rocks that are only a few seconds old (otherwise known as flowing lava)! The cost typically comes out to ~\$175 + airfare, and you will be responsible for making your own flight arrangements to and from Hilo. More details about this trip will be available soon. For photos from previous years' trips, go to: http://www.soest.hawaii.edu/GG/FACULTY/ROWLAND/GG104/Kilauea/GG104_Kilauea_webpage01.htm

*SLOs - Student Learning Objectives

Earth Sciences undergraduate courses have to consider how they address a number of SLOs, which the Earth Sciences Department has decided are key attributes and/or abilities of any Earth Sciences student. They are (in no particular order):

- 1. Students can <u>explain the relevance</u> 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. Students can <u>apply technical knowledge</u> of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
- 3. Students use the scientific method to define, critically analyze, and solve a problem in earth science.
- 4. Students can <u>reconstruct</u>, <u>clearly</u> and <u>ethically</u>, geological knowledge in both oral presentations and written reports.
- 5. Students can <u>evaluate</u>, <u>interpret</u>, <u>and summarize the basic principles</u> 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.

CHEATING, PLAGIARISM (DOING SOMEONE'S LAB FOR THEM, FOR EXAMPLE), ETC. IS TOTALLY UN-COOL AND VIOLATES THE UHM STUDENT CODE OF CONDUCT (SEE PP. 565-566 OF THE 2011-2012 UH CATALOG). IT WILL NOT BE TOLERATED, AND WILL RESULT IN AN *F* GRADE FOR THE COURSE AND A LETTER SENT TO YOUR ACADEMIC DEAN EXPLAINING THE REASON FOR THE F. NO CELL PHONES IN CLASS UNLESS BEING USED AS A CALCULATOR, GPS, OR STOPWATCH, OR ARE OTHERWISE OK-ed BY YOUR TA.

Title IX: The University of Hawai'i 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 on your campus to support and assist you. Staff can also direct you to resources that are in the community. Here are some of your options:

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.

If you wish to remain ANONYMOUS, speak with someone CONFIDENTIALLY, or would like to receive information and support in a CONFIDENTIAL setting, use the **confidential resources available here**: http://www.manoa.hawaii.edu/titleix/resources.html#confidential

If you wish to directly REPORT an incident of sex discrimination or gender-based violence including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence or stalking as well as receive information and support, contact: Dee Uwono, Title IX Coordinator (808) 956-299 t9uhm@hawaii.edu