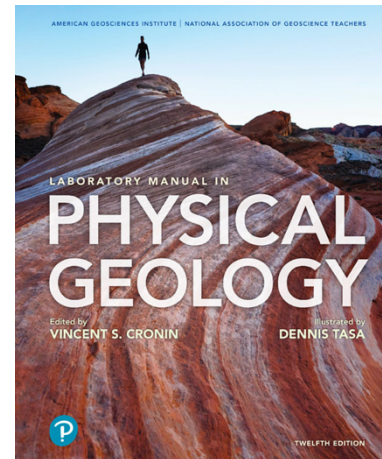


## ERTH 101L-008: Course Description & Syllabus

Welcome to Dynamic Earth Laboratory. In this **online** section of ERTH 101L-008 (MAN.74831.FA24), you will learn about the Earth and practice approaching problems like a geoscientist.

### Essential Information

Semester: Fall 2024                      Credits: 1  
Format: fully online, asynchronous  
Instructor: Dr. Deborah Eason ([deborah@hawaii.edu](mailto:deborah@hawaii.edu))  
Office hours (POST 719B): TBA, and by appt.  
Teaching Assistants: TBA



### Requirements

- eText: Laboratory Manual in Physical Geology 12<sup>th</sup> Ed, avail. through the IDAP<sup>1</sup> program.
- *Mastering Geology* account from Pearson. **Please use the same name associated with your UH account when you create your Pearson account.**
- computer with strong internet and download/installation privileges
- basic comfort level with capturing, annotating, and uploading digital photos/files
- office supplies: pencil, eraser, metric ruler  
(optional, for those who prefer to work with a hard copy: drafting compass, colored pencils)

### Organization & Grading

The course content is taught through online readings and video tutorials, and assessed with two weekly assignments: (1) homework that you access through Pearson's *Mastering Geology* online system, and (2) labs from the Laboratory Manual in Physical Geology (12<sup>th</sup> edition), which you submit through Laulima. There is also a final exam for this course. Here's the grading breakdown:

1. **Reading** assignments in the *Mastering Geology* system. These readings support the labs and make up **5%** of the course grade.
2. **Homework** assignments within the *Mastering Geology* system. These assignments typically include interactive questions and occasional short videos. They are designed to help you complete the lab activities, and students typically complete them in less than 30 minutes. The online assignments are worth **20%** of the course grade.
3. **Labs** are composed of Activities selected from the required eText: Laboratory Manual in Physical Geology (12<sup>th</sup> Ed; Pearson), which you access through your Pearson account. These assignments are worth **60%** of the course grade and typically take a few hours to complete. They are submitted through an online submission form in Laulima.

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<sup>1</sup> The digital course material under IDAP will be accessed through Laulima. If you are new to Laulima, see the Laulima Help page. During the semester, if technology questions arise, call the Laulima Help Desk at (808) 956-8853 or Toll Free (800) 558-2669.

**IMPORTANT:** You'll need to be able to edit screen shots with drawing tools. For example, you'll need to plot points on a set of x,y coordinates, sketch lines on a given map or image, and add text labels . Image annotation is NOT covered in this course.

5. A combined syllabus quiz/ethics pledge/questionnaire given at the start of the course is worth **2%** of the course grade. This is also located in *Tests & Quizzes* on Laulima.

**Time commitment:** Expect to spend ~3-4 hours per week on this course, similar to other 1-credit physical science labs at UHM.

### Homework & Lab Due Dates

**Homework:** Homework assignments are on Pearson's *Mastering Geology* system. They will appear on your Pearson calendar once you create an account and join the course. Homework assignments are due every Tuesday night at 10 pm. Late submissions are automatically penalized 1% of the total score per day (up to a max of 30% off).

**Labs:** Labs are due every Thursday night at 10 pm (\*except holidays). Each week's lab consists of two Lab Activities, which are found in the eText. You **submit them on Laulima** using the *Lab Submission* tool—note that some questions have been modified for easier submission! Some questions must be graded by hand, so you will not have instant access to the scores. To help you complete the labs, a series of **video tutorials** are provided on Laulima (*Lab Tutorials*).

Lab #	Week of...	HW due Tue 10:00pm (Pearson)	Lab due Thu 10:00pm (Laulima)	Reading: Chapter	Lab: Chapter Activity #
–	8/26	Set up Pearson account, take Ethics Pledge/Syllabus Quiz (due Fri 8/30)			
1	9/2	Sep 3	Sep 5	1	1.4, 1.6
2	9/9	Sep 10	Sep 12	2	2.4, 2.7
3	9/16	Sep 17	Sep 19	3	3.2, 3.6
4	9/23	Sep 24	Sep 26	4	4.3, 4.4
5	9/30	Oct 1	Oct 3	5	5.2, 5.3
6	10/7	Oct 8	Oct 10	6	6.4, 6.7
7	10/14	Oct 15	Oct 17	7	7.2, 7.5
8	10/21	Oct 22	Oct 24	8	8.1, 8.4
9	10/28	Oct 29	Oct 30	9	9.1, 9.5
10	11/4	Nov 5	Nov 7	10	10.2, 10.4
11	11/11	Nov 12	Nov 14	11	11.1, 11.3
12	11/18	Nov 19	Nov 21	12, 13	12.7, 13.2
13	11/25	Nov 26	*Dec 2 (Mon)	14, 15	14.1, 15.1
14	12/2	Dec 3	Dec 5	16	16.1, 16.4
15	12/9	Dec 10	Dec 12	17	17.1, 17.4
<b>Final Exam Period</b> (Dec 16-20): take the exam on Pearson any time this week (due Fri 12pm)					

**IMPORTANT:** You do NOT have to complete every activity in the chapter. Check the table below for the assigned activities to make sure you don't do extra work!

## Chapters and Lab Activities

Chapter	Lab Activities
1: Filling Your Geoscience Toolbox	ACTIVITY 1.4 Scaling, Density, and Earth's Deep Interior ACTIVITY 1.6 Unit Conversions, Scientific Notation, and Rates
2: Plate Tectonics	ACTIVITY 2.4 Hotspots and Plate Motions ACTIVITY 2.7 Atlantic Seafloor Spreading
3: Mineral Properties, Identification, and Uses	ACTIVITY 3.2 Mineral Shape ACTIVITY 3.6 The Mineral Dependency Crisis
4: Rock-Forming Processes and the Rock Cycle	ACTIVITY 4.3 What are Rocks Made Of? ACTIVITY 4.4 Rock-Forming Minerals
5: Igneous Rocks and Processes	ACTIVITY 5.2 Investigating Mineral Grain Size in Igneous Rock ACTIVITY 5.3 Glassy and Vesicular Textures of Igneous Rock
6: Sedimentary Processes, Rocks, and Environments	ACTIVITY 6.4 Sediment from Source to Sink ACTIVITY 6.7 Grand Canyon Outcrop Analysis and Interpretation
7: Metamorphic Rocks, Processes, and Resources	ACTIVITY 7.2 Minerals in Metamorphic Rock ACTIVITY 7.5 Metamorphic Grades and Facies
8: Dating of Rocks, Fossils, and Geologic Events	ACTIVITY 8.1 Geologic Inquiry for Relative Dating ACTIVITY 8.4 Numerical Dating of Rocks and Fossils
9: Topographic Maps	ACTIVITY 9.1 Map and Google Earth Inquiry ACTIVITY 9.5 Relief and Gradient (Slope)
10: Geologic Structures, Maps, and Block Diagrams	ACTIVITY 10.2 Geologic Structures Inquiry ACTIVITY 10.4 Appalachian Mountains Geologic Map
11: Earthquake Hazards and Human Risks	ACTIVITY 11.1 Earthquake Hazards Inquiry ACTIVITY 11.3 Locate the Epicenter of an Earthquake
12: Stream Processes 13: Groundwater Processes	ACTIVITY 12.7 Flood Hazard Mapping, Assessment, and Risk ACTIVITY 13.2 Where is the Nasty Stuff Going?
14: Glaciers 15: Deserts	ACTIVITY 14.1 The Cryosphere and Sea Ice ACTIVITY 15.1 Dryland Inquiry
16: Coastal Processes, Landforms, Hazards, and Risks	ACTIVITY 16.1 Coastline Inquiry ACTIVITY 16.4 The Threat of Rising Seas
17: Earth's Dynamic Climate	ACTIVITY 17.1 How Does Rising Temperature Affect Sea Level ACTIVITY 17.4 Carbon Dioxide in the Atmosphere

**Late Policy:** Students are expected to complete the weekly lab assignments on time. Late lab submissions make it hard for our graders to do their job, and it's in your own interest to not fall behind! Our late policy is designed to help keep everyone on track while still providing some amount of flexibility:

- **For full credit**, submit lab assignments **before their deadline**.
- After the deadline, you have a **5-day grace period** during which you can submit the lab late for a small penalty (−5% off the total score). No excuse required, no permission needed, and no need to contact us to take advantage of this option. (\*\*Use sparingly!\*\*)
- **After the 5-day grace period is up, any unsubmitted labs will receive a 0.** We will NOT accept labs after this point except in extraordinary circumstances (i.e., a documented medical excuse or similar emergency). To request an extension, please email the instructor as soon as possible, preferably before the extended (+5 days) deadline. Valid documentation **MUST** be provided.

Grade Scale	
letter	score
A+	≥96.7%
A	93.3%
A-	90.0%
B+	86.7%
B	83.3%
B-	80.0%
C+	76.7%
C	73.3%
C-	70.0%
D+	66.7%
D	63.3%
D-	60.0%
F	<60.0%

## Learning Environment and Communication

**Online Course:** This lab is administered in a fully online, asynchronous learning environment. There is no required synchronous or in-person component, such as a weekly recitation section or zoom meeting. Pre-recorded video tutorials provided on Laulima are meant to guide you through each step of the assigned lab activities, working through roughly half of all the questions. We will also offer office hours for anyone wanting additional assistance (a mix of in-person and zoom options).

**Getting Help:** If you have content questions after reading the assigned text, doing the coaching homework in the Pearson system, and watching the tutorials, please do not hesitate to contact one of the TAs or the instructor. You can:

- stop by one of our scheduled office hours (see course Overview page for times), or...
- email us your availability to schedule another time, or...
- email us your question if it's quick/easy to address over email.

**Email:** Check your UH email account regularly. When sending email, **include in the subject line: EARTH101L**. Please provide all relevant information so we can better assist you and allow sufficient response time (hours to days) as other commitments may keep us away from our inboxes.

**Technology issues:** Since this is an online course, it relies heavily on the internet and having a good internet connection. Occasionally there are internal problems with Laulima or Pearson. Usually these problems are temporary and your assignments will not be affected. Be mindful of external problems with your internet service, the browser, or your connection. **Get started early** so you can submit assignments before the deadline. If you have a problem with the Pearson system, please see the “Technical Troubleshooting” section on the Laulima *Course FAQ* page.

## Learning Objectives

The Department of Earth Sciences defines five student learning objectives (SLOs) for the undergraduate degree program related to the relevance of geology and geophysics.

1. 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.
2. Students can apply technical knowledge 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 reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
5. 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.

This course will introduce and begin to develop skills in SLOs 1, 2, 3, and 5. For example, regarding SLOs 1 and 2, you will learn why volcanoes erupt; how and why the volcanoes of Hawaii differ from those on the continents; and understand the differing hazards they pose. In pursuing hypotheses (SLO 3), for example, you'll determine the identity of an unknown mineral using a sequence of tests and apply a process of elimination, and then be asked to put the sample in geologic context. Regarding SLO 5, you will apply basic algebraic expressions relating density, volume, and mass; you'll use chemical formulae for mineral names and apply a quantitative treatment of data wherever possible, including calculation of averages, graphing of results, and estimation of measurement errors.

## Policies

**Cheating and plagiarism.** Academic integrity is a basic principle that requires all students to take credit for the ideas and efforts that are their own. Cheating, plagiarism, and other forms of academic dishonesty are defined as the submission of materials in assignment, exams, or other academic work that is based on sources prohibited by the faculty member. This includes doing someone's lab for them or allowing someone to do your lab for you, or copying solutions from the internet, an instructor's manual, or other external source. **Copying from a friend, fellow student, internet site (e.g., Chegg, CourseHero, ChatGPT, etc.) or other source, or allowing someone to copy your work are clear violations.** They are also easy to detect. Academic dishonesty is defined further in the UHM "Student Code of Conduct." In addition to any adverse academic action that may result from dishonest behavior, the University specifically reserves the right to address and sanction dishonest conduct through student judicial review procedures and the Academic Dispute Resolution Procedure specified in the University catalogue.

**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. If you need disability-related accommodations, please notify the KOKUA Program (808) 956-7511 or email: [kokua@hawaii.edu](mailto:kokua@hawaii.edu).

## Title IX information

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: Jennifer Rose, Title IX Coordinator (808) 956-2299 [t9uhm@hawaii.edu](mailto:t9uhm@hawaii.edu).

## **IDAP**

This course will be participating in the Bookstore's Interactive Digital Access Program (IDAP). Through this program, you can access your e-text digitally. A charge for the digital course material through IDAP will be added to your MyUH account. You have the option to opt out of receiving your course material through IDAP. By opting out, you will lose access to the course material and the charge will be refunded on your MyUH account. If you do not opt out, the charge will stay on your MyUH account. Any unpaid charges on your MyUH account will turn into a hold. Holds on your account will prevent you from accessing various services within the University. You may opt out by visiting your unique Inclusive Access Student Portal, which can be found in your IDAP welcome email (Subject Line: "IMPORTANT: You have enrolled in an IDAP Course"). For more information regarding IDAP, please contact the campus bookstore.

## **Executive Summary:**

- You are required to buy the course eText and create a Pearson *Mastering Geology* account. We're participating in the bookstore's IDAP program—by registering for this course, you're automatically 'opted in.' (This is the best price available, so don't opt out!)
- When you create your Pearson account, use the same first name, last name, and username as in the UH system.
- Complete the Ethics Pledge/Syllabus Quiz/Questionnaire on Lulima.
- Complete homework and reading assignments using the Pearson *Mastering Geology* system.
- Lab assignments are located in the Laboratory Manual in Physical Geology 12<sup>th</sup> Ed. Watch the corresponding video tutorial for each assigned Activity in *Lab Tutorials* on the Lulima course site. Submit your work using the Lulima *Lab Submissions* tool.
- Use Lulima Gradebook to view lab grades (usually available a couple weeks after the lab is due). Periodic updates on your course grade will be provided via the Lulima PostEm tool after the ~4th lab.
- Remember, students are held to the usual standard of respectful and ethical behavior. You are expected to adhere to the UHM Student Code of Conduct throughout this course.