

# **ERTH 101, Dynamic Earth**

3 Credits

CRN 63432 (in-person, TR 11:30-12:45; 'Imiloa 113) and CRN 63509 (zoom https://hawaii.zoom.us/j/8082555139, TR 11:30-12:45)

**INSTRUCTOR:** Dr. Arjun Aryal

**OFFICE/CLASS:** Hale Imiloa 113

**OFFICE HOURS**: Th 10:00 AM to 11:30 AM, (in-person or zoom)

**TELEPHONE:** 8084624868 **EMAIL**: aryal@hawaii.edu

**EFFECTIVE DATE:** Fall 2022

#### WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

## **CATALOG 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 on the Earth and its resources. (3 hrs. lect.) WCC:DP

# STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

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 relation to other core sciences, to explain complex phenomena in geology and geophysics.

#### LEARNING RESOURCES

Course Website: https://laulima.hawaii.edu/portal

**Textbook**: Required:

Physical Geology, The Science of Earth 3rd Edition (C. Fletcher, Wiley)

This course will be participating in the Bookstore's Interactive Digital Access Program (IDAP). Through this program, you will access your course material digitally, and it will be available to you by the first day of class. 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 your campus bookstore.

You can also purchase a physical copy and use that if that is your preference.

#### How to access the book in Laulima -

In Laulima course tab, click the "VitalSource for UH Winward CC IDAP" tool.

#### **COURSE TASKS**

Weekly study guide or 'roadmap': Please check Laulima portal /Resources/Week# for a weekly 'roadmap'. This study guide will describe your course resources, assignments, and expectations for the corresponding week.

**Class/Online discussions**: Class participation (in-person or online) is required. Students are required to access Laulima frequently (at least once a week), and check emails, announcements, and discussions regularly.

**Homework and Quiz:** There will be a weekly quiz and two homework. Quiz constitutes 40% of the course grades and homework will constitute 20% of the grade. Please check your Laulima portal for the weekly roadmap that explains your assignments. The weekly quiz will be available on Mondays and due Saturdays (midnight).

**Midterm and Final:** There will be one midterm exam and a final exam. Most of the questions will be in multiple-choice format. Exams will be in Laulima.

**Grading:** Grading will be based on the following points distribution

Quiz40%Homework20%Midterm exam20%Final exam20%

Class participation/Online Discussion 3% (extra credit)

Letter Grade Breakdown: A = 90% +; B = 80 - 89%; C = 70 - 79%; D = 60 - 69%; F = < 60% Please check your gradebook in Laulima regularly.

**Make-Up Exams/Early Exams**: Midterm and Finals will be available for a limited period of time. Please contact me in advance if you may not be able to attempt your exams at the specified time.

# **COURSE CONTENT**

# **Concepts or Topics and Schedule (Tentative):**

Week #, Week of	Topic
1, Aug 22	Introduction (Chapter 1), Setting the Stage
2, Aug 29	Solar System (Chapter 2), Plate Tectonics (Chapter 3)
3, Sep 5	Minerals (Chapter 4), Igneous Rocks (Chapter 5)
4, Sep 12	Volcanoes (Chapter 6)
5, Sep 19	Weathering (Chapter 7), Sedimentary Rocks (Chapter 8),
6, Sep 26	Metamorphic Rock (Chapter 9), Mountain Building (Chapter 10)
7, Oct 3	Earthquakes (Chapter 11)
8, Oct 10	Homework 1, Review
9, Oct 17	Midterm – Chaps 1-11
10. Oct 24	Geologic Time (Chapter 12), Earth History (Chapter 13)
11, Oct 31	Climate Change (Chapter 14)
12, Nov 7	Paleoclimate (Chapter 15), Mass Wasting (Chapter 16),
13, Nov 14	Surface Water (Chapter 17), Groundwater (Chapter 18),
14, Nov 21	Coastal Geology (Chapter 20) (Nov 24 – Thanksgiving)
15, Nov 28	Marine Geology (Chapter 21), Homework 2
16, Dec 5	Homework2 (due), Review
17, Dec 12	Final – Chapters 12-21

Please check the weekly 'roadmap' at /Resources/Week# folder in Laulima for more details.

#### ADDITIONAL INFORMATION

This is a hybrid class. Online (synchronous) class participants may have an option to visit the class when then can.

## **DISABILITIES ACCOMMODATIONS**

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 Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, royinouy@hawaii.edu, or you may stop by Hale Kākoʻo 106 for more information.

# SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College 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, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Jojo Miller, Confidential Advocate

Phone: (808) 348-0663 Email: <u>advocate@hawaii.edu</u> Office: Hale Kākoʻo 110

Desrae Kahale, Mental Health Counselor & Confidential Resource

Phone: (808) 235-7393 Email: dkahale3@hawaii.edu Office: Hale Kākoʻo 101

Karla K. Silva-Park, Title IX Coordinator

Phone: (808) 235-7468 Email: karlas@hawaii.edu Office: Hale Kākoʻo 128

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My 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.

For more information regarding sex discrimination and gender-based violence, the University's Title IX resources and the University's Policy, Interim EP 1.204, go to <a href="mailto:manoa.hawaii.edu/titleix/">manoa.hawaii.edu/titleix/</a>

#### **ACADEMIC INTEGRITY**

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through use of quotes or summarizing with reference to the original author.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s):

Students will receive a failing grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

#### ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alaka'i 121Phone: (808) 235-7422