

**ERTH 406, Fall 2020 NATURAL DISASTERS: GEOETHICS AND THE LAYMAN (3)
CRN 79397**



COURSE SYLLABUS

EARTH 406 [ERTH 406 Natural Disasters: Geoethics and the Layman \(3\)](#)

Fall of 2022

Class: 17:00 to 18:15 pm, Mondays and Thursdays August /22- to December /16, 2022

Classroom: POST 544 and 715!

Instructor: *Emilio Herrero-Bervera*

Phone: 956-6192, 956-4879 and 956-5227,

e-mail address: herrero@soest.hawaii.edu

Office hours: After class or arranged in POST 716A and/or 715

Target Audience and Course Content

This class is about the evaluation of the ethical practice of geoscience as it relates to studies of natural disasters that result from geological and meteorological phenomena and the means that earth scientists interact with the laymen. Pre: 101, 103, 104, or 170. (Once a year)

This class will study both the global and local phenomena from a Natural disaster perspective.

It is suited for students who:

- i) are preparing for a career in the geological and geophysical natural disaster environmental and geotechnical fields in industry or academia.
- ii) Want to know more about the natural disasters and hazards relative to the environment around them
- iii) Plan to pursue the new GGMGeo professional masters degree.

This course will cover natural and anthropogenically produced problems of the planet's interaction with the crust, the hydrosphere, biosphere and atmosphere. This class will analyze the application of geology and geophysics to attack and solve problems related to natural disasters

Topics include:

Introduction to Natural Hazards
Internal Structure of Earth and Plate Tectonics
Earthquakes
Tsunamis
Volcanoes
Flooding
Mass Wasting
Subsidence and Soils
Atmospheric Processes and Severe Weather
Hurricanes and Extratropical Cyclones
Coastal Hazards
Climate Change and Natural Hazards
Wildfires
Impacts and extinctions
Additional topics
Minerals
Rocks
Maps and related topics
How geologists determine geologic time

Text Book: NATURAL HAZARDS, Earth's processes as hazards, disasters, and catastrophes

Authors: Edward A. Keller and Duane E. DeVecchio

FIFTH Edition

GRADING. We will have at least a mid-term (33%) and final (33%) exams homework and an end-of-term project (33%) in order to have a final grade.

Class Format: This is a lecture class. It is anticipated that the students participate actively asking questions and general class discussions. Studying and keeping up with the reading will help the student to get the most out of the lectures and exercises.

GG Learning Objectives:

GG department has defined 5 learning objectives for the undergraduate degree program

related to Relevance of Geology and Geophysics, Technical knowledge, Scientific method,

Oral and written skills, and Evaluating Phenomena. This course directly incorporates content relevant to 4 of those:

- SLO1 - throughout the course you will learn about the relevance of magnetism to understanding and providing for human needs, and to impacts on society and planet Earth.
- SLO2 - you will solve problems using real world data sets
- SLO4 - you will reconstruct knowledge in a written report (final project).
- SLO5 - in all assignments you will evaluate, interpret, and summarize basic principles to explain complex phenomena at the interfaces of geology, biology, rock magnetism and soil science, environment and human industry.

Disability Access: 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 “Kokua”) located on the ground floor (Room 013) of the Queen Lili'uokalani Center for Student Services:

KOKUA Program; 2600 Campus Road; Honolulu, Hawaii 96822 Voice: 956-7511; Email: kokua@hawaii.edu ; URL: <http://www.hawaii.edu/kokua>

Discrimination: 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) 956-2299

t9uhm@hawaii.edu.