

**SYLLABUS**  
**Department of Earth Sciences**  
**ERTH 101: Dynamic Earth**

Fall, 2020

**Instructor:** Chip Fletcher

**Contact information:** [fletcher@soest.hawaii.edu](mailto:fletcher@soest.hawaii.edu); 808-294-0386 (*text me, or call!*)

**Office location:** POST 802

**Office hours:** T/Th 3-4:30pm

**I. Catalog Course 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 of the Earth and its resources. 3 credits

**II. Course Information, Policies and Resources**

- a. **Focus designation and hallmarks:** DP
- b. **Attendance policy:** Attendance is mandatory
- c. **Electronic devices:** Not allowed during tests. Allowed during lecture for note-taking only, otherwise not allowed.
- d. **Statement on Disability: KOKUA Program:**  
If you have a disability and related access needs, please contact the KOKUA program (UH Disabled Student Services Office) at 956-7511, [KOKUA@hawaii.edu](mailto:KOKUA@hawaii.edu), or go to Room 013 in the Queen Lili'uokalani Center for Student Services. Please know that I will work with you and KOKUA to meet your access needs based on disability documentation.
- e. **Academic Integrity and Ethical Behavior: Office of Judicial Affairs:**  
Cheating, plagiarism, or other forms of academic dishonesty are not permitted within this course and are prohibited within the System-wide Student Conduct Code (EP 7.208). Examples include: fabrication, facilitation, cheating, plagiarism, and use of improper materials including cell phones, tablets, computers, or any electronic device during a test or other grading opportunity. Any incident of suspected academic dishonesty will be reported to the Office of Judicial Affairs (OJA) for review and possible adjudication. Additionally, the instructor may take action in regards to the grade for the deliverable or course as they see fit. OJA provides the following: In cases of suspected or admitted academic dishonesty, the instructor involved shall attempt to resolve the matter with the student. Actions may include allowing the student to redo the assignment or giving a failing or reduced grade for the course. Instructors are encouraged to bring the matter to the attention of the departmental chairperson and/or academic dean of the instructor's school or college, and provide an informational report to the Student Conduct Administrator. Additionally, an instructor may formally refer any case of academic dishonesty to the Student Conduct Administrator for action under the Student Conduct Code. The Student Conduct Administrator or designee shall pursue such cases to determine appropriate disciplinary actions if, after a preliminary investigation, it is determined that sufficient information exists to establish that an act of academic dishonesty took place.
- f. **Office of Title IX** (see below)
- g. **Department of Public Safety:** (808)956-6911 (Emergency) / (808)956-8211 (Non-Emergency)  
[www.hawaii.edu/security](http://www.hawaii.edu/security)

**III. Course Content and Learning Objectives**

- a. **Course Content:** This semester we will study our home – Planet Earth. You can think of this course as an owners manual where you will learn how to live with, manage, and leave to the next generation, an Earth on which humanity can thrive. Our study will range from deep time to the near future, and from the vast Solar System to the individual elements that build our world. We will learn about plate tectonics, rocks and minerals, Earth history, natural hazards, oceans and continents, and natural resources such as soil, freshwater, and a healthy climate. We will also do a deep dive into climate change because your now, and your tomorrow, are the product of your personal choices in how you live your life.

- b. **Mānoa Institutional Learning Objectives for Undergraduate Students:** Institutional Learning Objectives (ILOs) encompass the UH Mānoa undergraduate experience as a whole—academic and co-curricular. It is through the combined efforts of faculty, students, staff, and administrators that students achieve the ILOs.
1. **Know—Breadth and Depth of Knowledge**  
Students develop their understanding of the world with emphasis on Hawai'i, Asia, and the Pacific by integrating general education knowledge (arts and humanities, biological sciences, languages, physical sciences, social sciences, technology); Specialized study in an academic field; and Understanding of Hawaiian culture and history.
  2. **Do—Intellectual and Practical Skills**  
Students improve their abilities to think critically and creatively; Conduct research; and Communicate and Report.
  3. **Value—Personal and Social Responsibility**  
Students demonstrate excellence, integrity, and engagement through: Continuous learning and personal growth; Respect for people and cultures, in particular Hawaiian culture; Stewardship of the natural environment; and Civic participation in their communities.
- c. **Department of Earth Sciences Learning Objectives for Undergraduate Students:** The Department of Earth Sciences has established the following undergraduate student learning objectives.
1. Students can **explain the relevance** of Earth Sciences to human needs, including those appropriate to Hawai'i, 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 Earth Science.
  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 Earth Science, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in Earth Science.

#### IV. Required Online Learning System and Text

- a. We are using **Wiley Engage** this semester. **Engage** is an online platform with reading, homework, exercises, and extra learning tools. We will use a digital eBook on **Engage** called *Physical Geology, 3<sup>rd</sup> Engage Course*. Sign up for an account at <https://wileydcs.engagelms.com/learn/course/view.php?id=1932> to access your eBook and online program. Your student account will be charged \$75.00 via IDAP. **Do not opt-out, or you will be locked out of the course and pay a higher amount later to access.** If you would like an additional print loose-leaf version of the text, you can purchase it at the bookstore after the add/drop period. Request a copy from the front counter.

#### V. What to Expect

- a. Attendance is important. I will have in-class exercises that are part of your grade and i will take attendance.
- b. This is an introductory Earth and Environmental Science class. Most class periods are lecture-based with short videos. For most students, the difficulty of the class comes from a new vocabulary and new concepts that can be complicated. I try to minimize jargon but the concepts are important to learn, you will need to assimilate a certain amount of new vocabulary. Keeping up with the reading will help you understand class lectures.
- c. We cover a lot of material and move at a quick pace.
- d. You need to attend each class, participate in class, stay on top of the reading, do every homework. Work hard, show up, respect your role as a learner, and you will be rewarded.

#### VI. Workload and Grading

- a. **Reading/Homework - 25%** There is a homework on the Engage site with every chapter; a little more than one per week. These homeworks open on a certain date that will be announced, and they close typically 1 week

later. You cannot reopen them later. Each missed homework is a zero in the gradebook and will significantly lower your grade. Don't miss any homeworks.

- b. **Exams - 65%** We will have three exams. These typically consist of multiple choice questions, diagram labeling, matching columns, fill in the blank, and other short answer questions.
- c. **Attendance/Participation - 10%** Show up, engage in discussion, do the reading, and take advantage of this learning opportunity.

## VII. Calendar

### Week            Topic + Homework and reading for each chapter are on Wiley Engage

1	Introduction (Chapter 1), Solar System (Chapter 2)
2	Plate Tectonics (Chapter 3)
3	Minerals (Chapter 4), Igneous Rocks (Chapter 5)
4	Volcanoes (Chapter 6)
5	<b>Exam I – Chaps 1-6</b> Weathering (Chapter 7)
6	Sedimentary Rocks (Chapter 8), Metamorphic Rock (Chapter 9)
7	Mountain Building (Chapter 10), Earthquakes (Chapter 11)
8	Geologic Time (Chapter 12), Earth History (Chapter 13)
9	<b>Exam II – Chaps 1-11</b>
10	Paleoclimate (Chapter 15), Climate Change (Chapter 14)
11	Climate Change (Chapter 14)
12	Climate Change (Chapter 14)
13	Surface Water (Chapter 17) Groundwater (Chapter 18)
14	Coastal Geology (Chapter 20), Marine Geology (Chapter 21)
15	Review
16	<b>Exam III – Chapters 1-15, 17-18, and 20-21</b>

\*Course calendar and content may be subject to change.

## UHM TITLE IX SYLLABUS 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 experiences any of these, UHM has staff and resources on campus to support and assist you. Staff also can direct you to resources in the community. Here are some of your options:

If you wish to remain **ANONYMOUS**, speak with someone **CONFIDENTIALLY**, or would like to receive information and support in a **CONFIDENTIAL** setting, contact:

### **Lesbian, Gay, Bisexual, Transgender (LGBT) Student Services**

Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) Student Services strives to maintain a safe and inclusive campus environment that is free from harassment and discrimination. The office provides direct services to students of the University of Hawai'i at Mānoa to confidentially discuss or seek advocacy and support for mistreatment due to their actual or perceived sex, gender identity, gender expression, or sexual orientation.

#### **Cameron Miyamoto**

Queen Lili'uokalani Center for Student Services 211  
2600 Campus Road  
Honolulu, HI 96822  
(808) 956-9250  
email: [lgbtq@hawaii.edu](mailto:lgbtq@hawaii.edu)  
<http://manoa.hawaii.edu/lgbt/>

#### **Office of Gender Equity**

The Office of Gender Equity offers direct services to victims and survivors of sexual harassment and sexual assaults. Brief descriptions of services offered are available here.

#### **Jenna Friedman**

Queen Lili'uokalani Center for Student Services 210  
2600 Campus Road  
Honolulu, HI 96822  
(808) 956-9499  
email: [geneq@hawaii.edu](mailto:geneq@hawaii.edu)  
[www.manoa.hawaii.edu/genderequity](http://www.manoa.hawaii.edu/genderequity)

#### **Prevention, Awareness, and Understanding (PAU) Violence Program**

Prevention, Awareness, and Understanding (PAU) Violence Program exists to inspire, educate, and empower students and campus communities to build safe living-learning environments, end interpersonal violence, and encourage holistic well-being in ways that are supportive, collaborative, student-centered, and strengths-based. PAU Violence Program staff provides direct services to all University of Hawai'i at Mānoa students including crisis response, safety planning, academic support, and referrals to campus and community resources.

#### **Jennifer Barnett**

#### **Leslie Cabingabang**

Queen Lili'uokalani Center for Student Services 211  
2600 Campus Road  
Honolulu, HI 96822  
(808) 956-8059  
[uhmpau@hawaii.edu](mailto:uhmpau@hawaii.edu)

#### **Student Parents At Mānoa (SPAM)**

Student Parents At Mānoa (SPAM) seeks to increase the visibility of and resources for student parents at UH Mānoa as they pursue education while parenting. SPAM staff provide advocacy, support, and referrals for pregnant and parenting students to help them succeed in their educational goals.

#### **Teresa Bill**

2600 Campus Road  
Queen Lili'uokalani Center for Student Services 211  
Honolulu, HI 96822

(808) 956-8059

[gotkids@hawaii.edu](mailto:gotkids@hawaii.edu)

<http://manoa.hawaii.edu/studentparents/>

**Counseling and Student Development Center (CSDC)**

The Counseling and Student Development Center (CSDC) offers support to UHM students, staff, and faculty to assist with personal, academic, and career concerns. All services are confidential and most are free of charge for Mānoa students. They also offer free consultation to faculty and staff on personal and student-related issues as well. CSDC office hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday. They also offer immediate walk in appointments for urgent or emergency/crisis services during their regular daily hours.

Queen Lili'uokalani Center for Student Services 312

2600 Campus Road

Honolulu, HI 96822

(808) 956-7927

[uhmcsdc@hawaii.edu](mailto:uhmcsdc@hawaii.edu)

[www.manoa.hawaii.edu/counseling](http://www.manoa.hawaii.edu/counseling)

**University Health Services Mānoa (UHSM)**

[The University Health Services Mānoa](#) (UHSM) is staffed by physicians, nurse clinicians, nurses, and other support staff, and offers a wide range of medical services and programs to UH Mānoa students, with many of the services also available to UH Mānoa faculty and staff and students from other UH campuses. Services include general medical care on a walk-in basis; women's health, sports medicine, psychiatry, and dermatology clinics by appointment; pharmacy and clinical laboratory; and student training, employment and volunteer opportunities.

1710 East West Road

Honolulu, Hawaii 96822

Honolulu, HI 96822

(808) 956- 8965

[www.hawaii.edu/shs/](http://www.hawaii.edu/shs/)

If you wish to remain **ANONYMOUS**, speak with someone **CONFIDENTIALLY**, or would like to receive information and support in a **CONFIDENTIAL** setting, contact the confidential resources available here:

<http://www.manoa.hawaii.edu/titleix/resources.html#confidential>

If you wish to **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**

Director and Title IX Coordinator

Hawai'i Hall 124

2500 Campus Road

Honolulu, HI 96822

(808) 956-2299

[t9uhm@hawaii.edu](mailto:t9uhm@hawaii.edu)

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: <http://www.manoa.hawaii.edu/titleix/>