

Tentative Daily Schedule Part I: Dynamics, Geophysics, Igneous & Metamorphic Processes in the Ocean Basins					
Lec.	Day	Date	Topic	Reading	Instructor
1	Tu	22-Aug	Introductions; Goals & mechanics of course	K, 1; OB, 2, P&S, 2	KCR & CRG
2	Th	24-Aug	Introduction to fundamental tenets of geology and marine geology	P&S, 1 & 20; K, 2; OB, 2; supplemental readings	KCR
3	Tu	29-Aug	Geological/Geophysical Techniques: Exploring the Seafloor and Earth's Interior	P&S 4; K4; OB, 2	KCR
4	Th	31-Aug	Geol/Geophys Techniques (con't); Origin of solar system, formation of Earth's moon	P&S 21, K5 & 12, OB2; supplemental readings	KCR
5	Tu	5-Sep	Core formation, Earth's magnetic field, Magnetostratigraphy	P&S 1; K, 5; OB, 2; supplemental readings	KCR
6	Th	7-Sep	Plate tectonics - the basics	P&S 1, 19; supplemental readings	KCR
7	Tu	12-Sep	Plate tectonics - overview	OB 2; P&S 1; K 2, 5	KCR
8	Th	14-Sep	Theory of Continental Drift and Plate Tectonics	P&S 4; K4	KCR
9	Tu	19-Sep	Seafloor spreading, plate motions, plate boundaries	OB 2; P&S 21; K5, 12	KCR
10	Th	21-Sep	Plate boundaries (cont'd); terrains and structure of continents	OB 2; P&S 1; K 2, 5; supplemental readings	KCR
11	Tu	26-Sep	Hot spots, Mantle Plumes; Mechanisms driving plate tectonics	OB 2; P&S 1; K 2, 5; supplemental readings	KCR
12	Th	28-Sep	Large Igneous Provinces and Mass Extinctions	supplemental readings	Guest
13	Tu	3-Oct	Rocks and Minerals	P&S 3	KCR
14	Th	5-Oct	Rocks and Minerals (cont'd); Bowens Reaction Series	P&S 3	KCR
15	Tu	10-Oct	Ocean Basin History & Continent Formation		Guest
16	Th	12-Oct	1st EXAM on Part I only		KCR

Tentative Daily Schedule Part II:					
Oceanic Processes and Sedimentation: From Coastlines to the Abyss					
Lec.	Day	Date	Topic	Reading	Instructor
17	Tu	17-Oct	Introduction to Part II: Global Inputs/Weathering	Supplemental	CRG
18	Th	19-Oct	Near Shore Processes (beaches, estuaries, deltas)	Supplemental	CRG
19	Th	24-Oct	Near Shore Processes (continued)	Supplemental	CRG
20	Th	26-Oct	Reefs and Shallow Water Carbonate Complexes	Supplemental	CRG
21	Tu	31-Oct	Quaternary Sea Level and Modern Shelf Systems	Supplemental	CRG
22	Th	2-Nov	Building Continental Margins: Sea Level & Seismic Sequence Stratigraphy	Supplemental	CRG
23	Tu	7-Nov	Deep Sea Canyons, Turbidity Currents	Supplemental	CRG
24	Th	9-Nov	Turbidites, Slumps, Submarine Fans	Supplemental	CRG
25	Tu	14-Nov	Ocean Circulation / Contourites / Deep-Sea Clays	Supplemental	CRG
26	Th	16-Nov	Deep Sea Biogenic Oceanic Sediments	Supplemental	CRG
27	Tu	21-Nov	Deep Sea Biogenic Oceanic Sediments	-	-
-	Th	23-Nov	<i>Thanksgiving Holiday (no class)</i>	Supplemental	CRG
28	Tu	28-Nov	Authigenic Sediments	Supplemental	CRG
29	Th	30-Nov	Upwelling Sediments (Corg-Si-P) & Sediment Diagenesis	Supplemental	CRG
30	Tu	5-Dec	Cenozoic Paleooceanography/Orbital Forcing	Supplemental	CRG
31	Th	7-Dec	2 nd Midterm Exam Review (last day instruction)		CRG
32	Tu	12-Dec	2nd EXAM on Part II (only) <u>Thursday, Dec 12, 12:00-2:00pm</u>		CRG

Learning Objectives:

The Department of Earth Sciences has five overall Student Learning Objectives (SLOs) related to the Bachelors Degree in Earth Sciences. This course's objectives encompass three levels of maturity in all five of these categories*:

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, field methods, and the supporting disciplines (math, physics, chemistry, biology) 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.

* http://www.soest.hawaii.edu/GG/resources/docs/gg-undergrad-SLO_Master_Checklist_Final.pdf

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: www.hawaii.edu/kokua

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) 956-2299 t9uhm@hawaii.edu.

Basic Needs:

Basic needs include food and housing, childcare, mental health, financial resources and transportation, among others. Student basic needs security is critical for ensuring strong academic performance, persistence and graduation and overall student well-being. If you or someone you know is experiencing basic needs insecurity, please see the following resources: <https://www.hawaii.edu/student-basic-needs/resources/manoa/>.