

COURSE: BI 110 - People and Nature: Oceans and Human Health (Lecture and Lab)

TIME: Section 1 - 01:30-02:20 p.m. MWF (January 13 - May 6, 2014)

Section 2 - 11:30 AM - 12:20 PM MWF (January 13 - May 7, 2014)

INSTRUCTOR: Dr. Hank Trapido-Rosenthal

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OFFICE: WSC 101 **OFFICE HOURS:** When the office door is open, or by appointment.

TEXT: All required reading materials will be available on the course website.

COURSE DESCRIPTION: This course is designed to introduce you to our relationship with the natural environment and the consequences of our actions/inaction in dealing with it. We will do this by focusing on the interactions, both positive and negative, between the oceans and the earth's human population. We will be combining ideas and information from both the natural sciences (i.e., biology, geology, physics, chemistry, etc.) and the social sciences (i.e., economics, politics, ethics, etc.) to try to gain an understanding of man's present relationship with the environment, what historical events have brought us here and what we must accomplish to insure our survival through the next millennium.

OBJECTIVES:

1. To understand the way the scientific method is used to gain knowledge.
2. To gain some basic knowledge of the processes of our natural environment.
3. To increase awareness of the complex relationships among all living things and their non-living environment.
4. To examine man's past and present relationship with his environment and the possible affects of these relationships on our future.
5. To increase awareness of the environmental problems facing us today and to present some solutions to these problems.
6. To enhance your knowledge and awareness of our environmental problems to enable more informed political and economic decisions.

LECTURES:

1. Lecture topics and text assignments are listed in the course outline. Lecture files will be posted on the course web site.
2. Examination dates are also listed in the course outline.
3. The instructor reserves the right to add, omit, or change the materials as he sees fit.

LABS: Unless otherwise specified, all labs will be field trips, beginning at 10:00 AM on Tuesdays and ending by 1:00 PM.

EXAMS, QUIZZES & GRADES:

1. All exams & quizzes will consist of multiple choice, true-false, and short essay questions. You will be graded on your ability not only to answer the question (some can be answered in several ways), but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of appropriate facts/examples. Thus all questions asking for your opinion or position, whether stated or not have an implied "Why?" or "How?" question attached.
2. Quizzes will be "unannounced" & if missed cannot be made up w/o a valid excuse.

3. If you are absent it is your responsibility to inform the instructor and to inquire about missed assignments, tests, etc. & to make these up on the day of your return to class.
4. Grades will be based on the following system & scale:

Grade Scale:

85% & above = A

70 - 85% = B

60 - 69% = C

50 - 59% = D

49% & below = F

Grading System:

Quizzes 30%

Mid Term 30%

Final 40%

COURSE SCHEDULE:

<u>Week</u>	<u>Dates</u>	<u>Lecture Topic</u>	<u>Readings</u>
1	Jan 13	Course Introductions My past and present, your present and future Entry Quiz (doesn't contribute to grade)	
	14	<i>Lab Rules and Field Trip Procedures</i>	
	15	Introduction to Science	<i>Lucas-Clark, What to Tell Students About Science</i>
	17	The Ocean and Atmosphere 1	
2	20	MLK Jr Day - NO CLASSES	
	21	<i>Pu'u Pia Hike</i>	
	22	The Ocean and Atmosphere 2	
	24	Case Study 1: Hurricanes	
3	27	Case Study 2: Disparities	
	28	No Field Trip - Hank Leaving	
	29	No Lecture - Hank Away	
	31	No Lecture - Hank Away	
4	Feb 3	How We Harvest the Ocean	

	4	<i>Lyon Arboretum Field Trip</i>	
	5	No Lecture - Hank Away	
	7	How We Harvest the Ocean (Video)	
5	10	How the Oceans Make Fish	
	11	<i>Mānoa Heritage Center Field Trip</i>	
	12	Tunas: Case Study 3: Atlantic Bluefin	
	14	Anchovies: Case Study 4: Peruvian Anchoveta	
6	17	Presidents Day - NO CLASSES	
	18	<i>Makapu'u Field Trip</i>	
	19	Whales and Whaling 1	
	21	Whales and Whaling 2 Case Study 5: Illegal Whaling	<i>Palumbi Articles</i> <i>Herman Article</i>
7	24	Review for Midterm	
	25	<i>No Field Trip Study for Midterm!</i>	
	26	MIDTERM EXAM	
	28	Midterm Results	
8	March 3	Into the Deep 1	
	4	<i>Board of Water Supply Field Trip</i>	
	5	Into the Deep 2	
	7	Ciguatoxin and Case Study 5: Ciguatera Fish Poisoning and Polynesian Exploration	

9	10	Polynesia 1 - Oceanic Islands	TBD
	11	<i>Board of Water Supply Field Trip</i>	
	12	Polynesia 2 - Polynesian Voyaging	TBD
	14	Polynesia 3 - The Ahupua'a	
10	17	Polynesia 4 - TBD	
	18	<i>UH Lo'i Field Trip</i>	
	19	<i>Fishing the Ancient Waters</i> video	
	21	Oceans and Human Health Biodiscovery I: Overview Marine Labs Biomedical Research Tools	
11	24-28	No Class - Spring Break	
12	31	Oceans and Human Health Biodiscovery II: Drugs from the Sea	
April	1	<i>Taste and Smell Lab</i>	
	2	Oceans and Human Health Biodiscovery III: Industrial and Consumer Products	
	4	Oceans and Human Health Biodiscovery IV: Renewable Energy - Biofuels from the Sea	
13	7	Risks, Benefits, and Consequences of Seafood Consumption	
	8	<i>Waikiki Aquarium</i>	
	9	Young and Old	

	11	Domestication of Plants and Animals	
14	14	The Tragedy of the Commons & A Tragedy of the Commons Averted	<i>Hardin: Tragedy of the Commons</i> <i>Butler: Bermuda Fisheries</i>
	15	<i>Diamond Head Tide Pools or TBD</i>	
	16	International Law of the Sea	
	18	No Classes - Good Friday	
15	21	<i>Cod Wars</i> video	
	22	No Field Trip - Passover	
	23	<i>An Inconvenient Truth</i> video	
	25	<i>An Inconvenient Truth</i> video	
16	28	Exit quiz (repeat of entry quiz - doesn't contribute to grade)	
	29	<i>Diamond Head Tide Pools or TBD</i>	
	30	General Ed Evaluation, and Course Evaluation	
	May 2	Review For Final	
17	6	Final Exam Section 1, 1:30 Class. Tuesday, May 6th, 11:00 AM - 1:00 PM Section 2, 11:30 Class. Wednesday, May 7th, 11:00 AM - 1:00 PM	