

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

TIME: 01:30-02:20 p.m. MWF (January 12 - May 5, 2015)

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 and field trips will begin at 2:30 PM on Thursdays and end by 5:20 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	35%
Mid Term	30%
Final	35%

Departmental and University Policies:

- *Music Devices and Cellular Phones:* Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. You will be asked to leave class and marked absent if you do not comply. This will negatively affect your grade. Please refer any questions to the Dean of Natural Sciences and Mathematics.
- *ADA Accommodations:* Pursuant to several federal and state laws, including the Americans with Disabilities Act of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from CUH Counseling Center (Dr. June Yasuhara, 735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations.
- *Policy on Communication:* The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or helpdesk@chaminade.edu.
- *Title IX Declaration:* Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment, and should I learn of any sexual

misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source you may contact the following: Chaminade Counseling Center| 808 735-4845;

Any priest serving as a sacramental confessor or any ordained religious leader serving in the sacred confidence role.

- *Academic Honesty*: Students are expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. Cheating in the form of plagiarism, collusion, deception and will not be tolerated and will negatively affect your grade.

Because Chaminade is an academic community with high professional standards, its teaching function is seriously disrupted and subverted by academic dishonesty. Dishonesty includes, but is not limited to, cheating, which includes giving/receiving unauthorized assistance during an examination; obtaining information about an examination before it is given, using inappropriate/unallowed sources of information during an examination; altering answers after an examination has been submitted; and altering the records on any grade. (Refer to the Chaminade University catalog for further information).

COURSE SCHEDULE:

<u>Week</u>	<u>Dates</u>	<u>Lecture Topic</u>	<u>Readings</u>
1	Jan 11	Course Introductions My past and present, your present and future Entry Quiz (doesn't contribute to grade)	
	13	Introduction to Science	<i>Lucas-Clark, What to Tell Students About Science</i>
	14	<i>Lab Rules and Field Trip Procedures</i>	
	15	The Ocean and Atmosphere	
2	18	MLK Jr Day - NO CLASSES	
	20	Case Study 1: Hurricanes	
	21	<i>Pu'u Pia Hike or Seawater Lab</i>	
	22	Origins of Life	

3	25	How the Oceans Make Fish	
	27	How We Harvest the Ocean	
	28	<i>Seawater Lab or Pu'u Pia Hike</i>	
	29	How We Harvest the Ocean (Video)	
4	Feb 1	Why We Harvest the Ocean: Risks, Benefits, and Consequences of Seafood Consumption	
	3	Why We Harvest the Ocean (continued)	
	4	<i>Lyon Arboretum Field Trip</i>	
	5	Tunas: Case Study 2: Atlantic Bluefin	
5	8	Anchovies: Case Study 3: Peruvian Anchoveta	
	10	Whales and Whaling 1	<i>Herman Article</i>
	11	<i>Microscopy Lab</i>	
	12	Whales and Whaling 2: Case Study 4: Illegal Whaling	<i>Palumbi Articles</i>
6	15	Presidents Day - NO CLASSES	
	17	Into the Deep 1 (Video)	
	18	<i>Makapu'u Field Trip or Mānoa Heritage Center Field Trip</i>	
	19	Into the Deep 2 (Video)	
7	22	The Tragedy of the Commons & A Tragedy of the Commons Averted	<i>Hardin: Tragedy of the Commons</i> <i>Butler: Bermuda Fisheries</i>
	24	Review for Midterm	
	25	<i>No Field Trip Study for Midterm!</i>	
	26	MIDTERM EXAM	

8	29	Polynesia 1 - Oceanic Islands	
March	2	Polynesia 2 - Polynesian Voyaging	TBD
	3	<i>Mānoa Heritage Center Field Trip or Makapu'u Field Trip</i>	
	4	Polynesia 3 - The Ahupua'a	TBD
9	7	<i>Fishing the Ancient Waters</i> video	
	9	Ecological, Economic, and Health Disparities in Pacific Island Societies	
	10	<i>Polynesian Voyaging Society Field Trip</i>	
	11	Failed Island Societies I: Mangareva-Pitcairn-Henderson	
10	14	Failed Island Societies II Rapa Nui, and the Greenland Norse	
	16	Plant and Animal Domestication	
	17	<i>Kaloko Cove Field Trip</i>	
	18	Why Do We Age?	
11	21-25	No Class - Spring Break	
12	28	Treatment of Young and Old	
	30	Why Sex?	
	31	<i>Taste and Smell Lab</i>	
April	1	Oceans and Human Health Biodiscovery I Overview Marine Labs Biomedical Research Tools	

13	4	Oceans and Human Health Biodiscovery II: Drugs from the Sea
	6	Oceans and Human Health Biodiscovery III: Industrial and Consumer Products
	7	<i>Waikiki Aquarium Field Trip</i>
	8	Oceans and Human Health Biodiscovery IV: Renewable Energy - Biofuels from the Sea
14	11	International Law of the Sea
	13	<i>Cod Wars Video</i>
	14	<i>Diamond Head Tide Pools or TBD</i>
	15	Climate Change
15	18	<i>An Inconvenient Truth</i> video
	20	<i>An Inconvenient Truth</i> video
	21	<i>Diamond Head Tide Pools or TBD</i>
	22	No Class - Passover
16	25	Exit quiz (repeat of entry quiz - doesn't contribute to grade)
	27	General Ed Evaluation, and Course Evaluation
	28	<i>No Field Trip Study for Final!</i>
	29	Review For Final
17	May 2-5	Final Exam, TBD