



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

TIME: Fall Semester 2018, 01:30-02:20 p.m. MWF (August 20 - December 4)

PLACE: Clarence T.C. Ching Hall 253

INSTRUCTOR: Dr. Hank Trapido-Rosenthal

Phones: 735-4908 (CUH) and 551-3625 (cell)

email: henry.trapido-rosenthal@chaminade.edu

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. Dates for the midterm and final exams 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, labs will be field trips, beginning at 2:30 PM on Mondays and ending 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. Students will submit one short paper, on a topic of interest to both the student and the instructor.
5. Grades will be based on the following system & scale:

Grade Scale:

90% & above = A

80 - 89.9% = B

70 - 79.9% = C

50 - 69.9% = D

<50% = F

Grading System:

Quizzes 35%

Mid Term 25%

Final 30%

Paper 10%

COURSE SCHEDULE:

<u>Week</u>	<u>Dates</u>	<u>Lecture Topic</u>	<u>Readings</u>
1	Aug 20	Course Introductions My past and present, your present and future Entry Quiz (doesn't contribute to grade) General Ed Evaluation (doesn't contribute to grade)	
	21	<i>Lab Rules and Field Trip Procedures</i>	
	22	Introduction to Science Pope Francis, <i>On Care for Our Common Home</i>	<i>Lucas-Clark, What to Tell Students About Science Pope Francis, 2015. Laudato Si (summary)</i>
	24	The Ocean and Atmosphere	<i>Laws, Background Oceanography</i>
2	27	Case Study 1: Hurricanes	
	28	<i>Pu'u Pia Hike (on your own, so date and time at your convenience)</i>	
	29	How the Oceans Make Fish	<i>Laws, How the Oceans Make Fish</i>

	31	How We Harvest the Ocean	<i>Laws, Fishing Methods</i>
3.	Sept 3	Labor Day - NO CLASSES	
	4	<i>Pu'u Pia Hike (on your own, so date and time at your convenience)</i>	
	5	How We Harvest the Ocean (Video)	
	7	Why We Harvest the Ocean 1: Risks of Seafood Consumption	
4	10	Why We Harvest the Ocean 2: Benefits, and Consequences of Seafood Consumption	
	11	<i>Lyon Arboretum Field Trip or Microscopy Lab</i>	
	12	Tunas: Case Study 2: Atlantic Bluefin	<i>Sushinomics</i>
	14	Anchovies: Case Study 3: Peruvian Anchoveta	
5	17	Whales and Whaling 1	<i>Roman et al. Article</i>
	18	Yom Kippur 1 - No Lab or Field Trip	
	19	Yom Kippur 2 - No class	
	21	Whales and Whaling 2	<i>Palumbi Articles</i> <i>Herman Article</i>
6	24	Into the Deep 1	
	25	<i>Lyon Arboretum Field Trip or Microscopy Lab</i>	
	26	Into the Deep 2	
	28	The Tragedy of the Commons & A Tragedy of the Commons Averted	<i>Hardin: Tragedy of the Commons</i> <i>Butler: Bermuda Fisheries</i>

7	Oct 1	<i>Fishing the Ancient Waters</i> video	
	2	Review for Midterm	
	3	MIDTERM EXAM	
	5	Midterm Results, Shifting Baselines	
8	8	Discoverers' Day - NO CLASSES	
	9	Seawater Lab	
	10	Polynesia- Oceanic Islands	
	12	The Ahupua'a & Polynesian Voyaging	
9	15	Pacific Disparities 1	
	16	<i>Mānoa Heritage Center Field Trip</i>	
	17	Pacific Disparities 2	
	19	Know Your Limits - Failed Island Societies	
10	22	The Ocean's Ecosystem Services	<i>Van Beukering et al.</i>
	23	<i>Board of Water Supply Field Trip</i>	
	24	Plant Domestication	<i>Diamond, Plant and Animal Domestication</i>
	26	Animal Domestication	<i>Diamond, Plant and Animal Domestication</i>
11	29	Oceans and Human Health Biodiscovery I: Overview Marine Labs Biomedical Research Tools	
	30	<i>Taste and Smell Lab</i>	
	31	Oceans and Human Health	

		Biodiscovery II: Drugs from the Sea	
Nov	2	Oceans and Human Health Biodiscovery III: Industrial and Consumer Products	
12	5	Oceans and Human Health Biodiscovery IV: Renewable Energy - Biofuels from the Sea	
	6	<i>Waikiki Aquarium</i>	
	7	International Law of the Sea	
	9	Why Do We Age?	Nick Lane, from <i>Life Ascending</i>
13	12	No Class - Veterans Day Holiday	
	13	<i>Kaloko Cove Tide Pools Field Trip</i>	
	14	Young and Old	
	16	Why Sex?	Nick Lane, from <i>Life Ascending</i>
14	19	Symbiosis	
	20	<i>Diamond Head Tide Pools Field Trip</i>	
	21	<i>An Inconvenient Truth 1</i> video	
	23	Day After Thanksgiving - NO CLASSES	
15	26	<i>An Inconvenient Truth 2</i> video	
	27	<i>Diamond Head Tide Pools Backup</i>	
	28	Exit Quiz (doesn't contribute to grade) Review for Final	

16 Dec 4 Final Exam, 11:00

Additional Departmental and University Policies

1. Electronic Devices

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.

2. ADA Statement

2.1 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.

3. Attendance & Tardiness

3.1 Students are expected to attend regularly all courses for which they are registered. Students should notify their instructors when illness or other extenuating circumstances prevents them from attending class and make arrangements to complete missed assignments. Notification may be done by emailing the instructor's Chaminade email address, calling the instructor's campus extension or by leaving a message with the instructor's division office (Natural Science and Math 1 (808) 440-4204). It is the instructor's prerogative to modify deadlines of course requirements accordingly. Any student who stops attending a course without officially **withdrawing** may receive a failing grade.

3.2 Unexcused absences equivalent to more than a week of classes may lead to a grade reduction for the course. Any unexcused absence of two consecutive weeks or more may result in being **withdrawn** from the course by the instructor, although the instructor is not required to **withdraw** students in that scenario. Repeated absences put students at risk of failing grades.

3.3. Tardiness

Occasional tardiness is a fact of life and traffic, and is excusable. Routine tardiness is rude, and will not be tolerated.

4. Policy on Make-Up Tests

Missed quizzes and exams can be made up if the reason for missing them is plausible.

5. 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.

6. Laboratory Safety Information

The following guidelines are established to provide instructions in maintaining safety for students, staff, and faculty while using any of the science laboratories at Chaminade University. The Division of Natural Sciences and Mathematics (NSM), along with the University Environmental Safety Office are responsible for enforcing the regulations set forth in the current Student Handbook. Queries should be addressed to: Dean of Natural Sciences and Mathematics (808) 440-4204; Environmental Safety Officer (808) 739-4811

7. 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.

8. 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.