

BI110L Syllabus

People & Nature Lab

Spring 2017 meeting days/times: Tues 2:30 – 5:20 PM, Henry Hall Lab 4

Instructor: Dr Mike Dohm, **Office:** Henry Hall, room 6; **Phone:** 808-739-8543

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Office hours: Tuesday 9AM – 12PM; Other times may be possible, but by appointment only.

Special Attention -- Henry L4 Safety and Proper Attire: We are obliged to follow applicable safety policies as established by the Environmental Safety Office: **(1) No food or drink; (2) You must wear closed toes shoes; and (3) A lab coat must be worn if your clothes do not reach your knees, or cover your shoulders or midriff.** Failure to comply with these rules will result in loss of points and you will be asked to leave the classroom until you are able to comply. ***Please make note:*** If you do not wear proper attire on Exam days, you will be asked to leave the class room until such time as you are able to comply with the lab safety rules; you will not be allowed to make up the exam and you will therefore receive a “0” for that exam. Please respect the rules and our obligation to provide a safe working environment for all of us. Do not make this an issue for us all.

Required textbook: The lab manual consists of materials posted on the course website plus handouts provided in class; there is no cost to you.

Recommended Textbook: *Environmental Science: Inquiry & Applications*, 6th ed. (2011), WP Cunningham and MA Cunningham

Access to course website: BI110, and the accompanying lab class BI 110L, are web-enhanced courses, i.e., instruction takes place in the classroom, and technology, including the website, are used to complement and support face-to-face instruction. All lecture slides, course handouts, including this syllabus, will be made available to you at our web site. Quizzes typically will also be handled via the website, although other arrangements for taking quizzes may be available upon request. You may access the website via Chaminade's Canvas. You should already be enrolled. Select BI-110L -01-1. The Canvas site uses latest SSL security; your information is safe provided you use a decent password. Although Canvas provides a Grading feature, this feature is for you to monitor your progress only; your official grades for the course are maintained by Dr Dohm in his grade book in his office.

Use of Canvas for BI110L is part of your participation in the course. For a satisfactory score on this element, you are expected to spend about an active hour each week on the site.

Course Description: This course is designed to introduce you to Environmental Science, a discipline that is devoted to the study of our relationship to the natural environment. We study the interactions among the biotic (animals, plants, etc.) and the abiotic (air, water, light, etc.) components of the environment. Environmental Science lab is also concerned with use of the scientific method to understand the natural environment. Thus, we will engage in a number of exercises and experiments to introduce the scientific method and to conduct experiments to develop an understanding of our present relationship with the environment.

Program outcome: This course will introduce students to the foundational concepts of biodiversity, population-level processes, renewable and nonrenewable resources, and environmental economics. Students will enhance abilities to identify their environmental worldview and to discuss local and global aspects of sustainable environmental practices.

Student learning outcomes: On completion of this course, students will be expected to demonstrate an understanding or awareness of

1. the scientific method
2. lab report writing using a scientific journal as guide.
3. the complex relationships among all living things and their non-living environment.
4. our past and present relationship with the environment and the possible affects of these relationships on our future.

Course assessment:

Grading for this course will be based on your scores from one exam, two lab reports/presentations, your notebook, and from daily attendance and participation.

The exam will be given at the end of the term, and will include multiple choice, true/false, and short answer questions derived from questions asked during the semester. The exam is open lab notebook, but closed text book.

We will have two lab reports this semester. Guide for report writing and required, graded elements will be presented to you.

The lab notebook is your essential document in this course. We will be using Microsoft's Onenote as a lab notebook. You will be provided instructions for use and how to obtain the application. Every handout I give you, every note or observation you make in lab, any notes you make outside of class, these all should be in place in your notebook. Your electronic notebook will be shared with the instructor, and the notebook will be evaluated no fewer than three times during the semester, including at midterm and again at the end of the semester plus at random throughout the semester.

Attendance will be taken each day: Participation includes asking questions, bringing news items to our attention, and offering and discussing opinions about the material presented. Combined, attention/participation is worth 10% of your final grade. A total of 300 points are possible.

Points...	
Exam	75 pts
Lab notebook	75 pts
Papers & presentation	100 pts
Attendance/Participation	50 pts
Total points	300 pts

Your letter grade will be based on the following point distribution out of 300 points possible.

Points earned	Percent of total	Letter grade	Interpretation (page 42, CUH 2016-17 catalog)
270-300	90-100%	A	Outstanding scholarship and an unusual degree of intellectual initiative
240-269	80-89%	B	Superior work done in a consistent and intellectual manner
210-239	70-79%	C	Average grade indicating a competent grasp of subject matter
180-209	60-69%	D	Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite coursework.
< 179	< 60%	F	Failed to grasp the minimum subject matter; no credit given

University Policy, Reminders, and notices:

1. Labs begin at 2:30PM – please be on time. Chronic tardiness will be viewed as absence from class. If you miss or are tardy for class, please note that we will proceed without you and you will miss material; it is your responsibility to obtain missed lecture topics from your classmates who attended.
2. Lab ends each time at 5:20PM. Most days, we will need all of this time. Please do not get in the habit of asking, “How long are we going to be here today?”
3. You are expected to attend labs and to come prepared: read your text and any handout provided before the material is to be presented in lab; ask questions if you are unsure of material. Each lab will have a short write up due 1 week from date of assignment.
4. Please show respect to your fellow classmates: turn off cell phones and other electronic devices. No drink, but no food will be permitted during lectures.
5. Chaminade University abides by all aspects of the [Family Educational Rights and Privacy Act \(FERPA\)](#). Details of Chaminade's implementation of FERPA are available in your [Student Handbook \(SH\)](#).
6. You are also 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 (SH).
7. Success in this class is in your control. The more you do, the better the results will be for you. You are expected to attend class and to come prepared: read your text before the material is to be presented in class; preview the lecture slides available on the course web site; use the web site forum to ask questions and to discuss concepts; ask questions in class if you are unsure of material. I will suggest problems or questions from each chapter in your text or from the publisher's website for you to consider. If you have purchased access to online content that accompanies your text book, please do take advantage of this marvelous resource. Neither the suggested problem sets nor the work on Pearson's supplemental material will be graded, nor are they required. However, the more you do, the more practice and exposure you get to the material, the better you will do on my exams. Exams are based on the same concepts and problems that the text questions address.
8. Class begins and ends each time exactly on the scheduled start time. Regular attendance is expected and essential for your progress in this class. The goal of lecture and discussion will be to provide the needed context to remove barriers to your understanding of the material – going it alone is not recommended.
9. It is university policy that any student who stops attending a course without officially withdrawing may receive a failing grade (SH, p. 34). Unexcused absences equivalent to more than a week of classes will lead to a grade reduction for the course.
10. No make up quiz, exam, or presentation time will be granted for unexcused absences. For excused absences, if a student cannot attend a class in which an exam or quiz has been scheduled, the student must provide written verification of the need to miss class at least one day prior to the scheduled due date. This includes any activities sponsored by Chaminade (athletics, etc.) – it is the responsibility of the student to adhere to this policy. In the event of illness, a Doctor’s note will be expected.
11. Please utilize my official office hours or make an appointment via the letgen.org/chaminade website. You are encouraged to use the Ask Dr Dohm forum – if you have a question, there is an excellent chance that others in the class have similar questions – use of Ask Dr Dohm forum counts as participation.
12. Return of graded paper material will be within ten business days after you take the graded assignment.
13. Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, *unless specifically permitted by your instructor* (see item 10 and 11). 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. Please refer any questions to the Dean of Natural Sciences and Mathematics.

14. You are encouraged to bring and use your laptops or tablets to genetics lecture and workshops. However, on exam days, calculators will be provided for your use; you may not use your smartphones, tablets, or laptops during exams.
15. You may not record audio, images, or video in the classroom without expressed permission of the instructor.
16. 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.
17. You are encouraged to work together; however, all graded material must be your own. Cheating in the form of plagiarism (offering of work of another as one's own, SH, p. 33), collusion, and deception will not be tolerated and will negatively affect your grade. Because the university is an academic community with high professional standards, its teaching function is seriously disrupted and subverted by academic dishonesty. Such 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/prohibited sources of information during an examination; altering answers after an examination has been submitted; and altering the records on any grade. (Refer to the CUH 2016-17 catalog for further information).
18. 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.
19. 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.

BI110L – Tentative course outline, subject to change by instructor

Week	Days	Lab title
1	1/17	Introduction and lab safety Arrange for Whale count field work Collecting height data TOSL test
2	1/24	Microsoft OneNote = your digital lab notebook Hydroponics I: Build apparatus, plant seeds Measurement: Accuracy & Precision Scientific Method & experiments Data science project: Height
3	1/31	Hydroponics II: Monitor growth Diversity: microorganisms Palolo Stream project: History Sterile technique Data science: data entry & management
4	2/7	Palolo Stream project: Water quality Diversity: microorganisms growth Hydroponics III: Monitor growth Data science: data entry Microscopes
5	2/14	Palolo Stream project: Water quality Use of spectrophotometer to monitor growth Hydroponics IV: Monitor growth Data science: data entry
6	2/21	Palolo Stream project: Water quality Standard curves & cell counts Hydroponics V: Monitor growth Toxicology: Cell viability assay Data science: data entry
7	2/28	Toxicology, continues Palolo Stream project: Water quality Hydroponics VI: Monitor growth Data science: data entry
8	3/7	Toxicology, continues Palolo Stream project: Water quality Hydroponics VII: Monitor growth Data science: data entry
9	3/14	Data science: Analysis
10	3/21	No class – Spring Break
11	3/28	Data science: Analysis
12	4/4	Data science: Analysis
13	4/11	Presentations
14	4/18	Field trip
15	4/25	Lab exam
16	5/2	Mandatory attendance; Lab wrap-up; Notebooks turned in