

# SCI 124L: Introduction to Environmental Science Laboratory

## Fall 2011



11:30-2:15pm Wednesday Bldg 3393, Room 103 (Manono Campus)

Instructor: Dr. Pamela Scheffler

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Office phone: 933-0835

Office Hours: Wednesday 2:15-3:15pm, Friday 11:15-12:15pm,  
Or by appointment

Optional Text: *Growing Native Hawaiian Plants: A How-to Guide for the Gardener* by Heidi L. Bornhorst

*Applying knowledge – scientific or otherwise – is an art.  
An artist is somebody who knows what to put where, and  
when to put it. A good artist...applies knowledge  
skillfully and sensitively to the particular creatures and  
places of the world – Wendell Berry.*

**Course Description:** Students apply the scientific method in learning about processes of ecosystem function and of human impact on the natural environment. Field work and field trips are an integral part of this course. **Student Learning Outcomes (SLOs):** by the end of this course you should be able to 1) use the scientific method to answer questions, 2) observe accurately and record measurement precisely, and 3) gather, analyze, and evaluate information.

Grades will be based on the following:

Participation/attendance	50 pts
Lab/Trip Reports	50 pts
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Total	100 pts

**Learning environment:** I expect each of you to contribute positively to the learning experience, both your own and that of your classmates. I expect honesty and integrity in all your work and interactions with other students\*. If you need any special assistance, please ask\*\*. **Attendance** is mandatory. All missed classes will count against your attendance/participation grade (exception: up to two missed labs may be made up through participation in Service Learning\*\*\* with a written trip report turned in within one week of the project). Anything not turned in on the date indicated in the schedule is considered late. Assignments turned in up to two weeks late will receive a lowered grade; after two weeks the grade will be dropped to an F; missing assignments receive a zero (0). You are responsible for all missed material – you may want to exchange contact information with one or more classmates early on in the semester so that you can figure out what assignments and information you have missed.

**Materials needed:** Please come to each class with material for writing (i.e., pen(cil) and paper) and appropriate clothing. On field trips you need to be prepared to be outside, regardless of the weather: please bring comfortable and sturdy shoes, a water bottle, and raingear; come prepared for both rain and sun every day. You might want to invest in a clipboard for taking notes in the field.

**Email:** You must check your hawaii.edu email account regularly while taking this course since email *will* be used for critical communication during the semester.

**Lab/Trip Reports:** See the attached schedule for due dates. Lab reports should be written following the style of the lab report handout and should be a minimum of 2-3 pages long. Trip reports describe the Where, When, Why, What, and How of the previous fieldtrip. That is, **Where & When** we went; **Why** we went (purpose of trip), **What** you learned, and **How** you felt about it; these reports should be approximately 2-3 pages long. The germination experiment report (from the plant propagation lab, Sept 7) will be due on Nov 2 and will receive a double grade; it is critically important that you keep good records on your experiment during this time. I recommend checking at least 3 days per week. All reports may be re-written for an improved grade; re-writes are due one week from the date you receive your corrected draft and the original report must be turned in with the re-write. Late re-writes will not be accepted.

**Passing Grades:**

90-100% A	70-79% C
80-89% B	60-69% D

**Counselors are available:** please call 974-7741 if you would like to speak with a counselor about any issues which have a negative impact on you ability to successfully complete this, or any other, class.

**\*Compliance with Hawaii CC Student Conduct Code:**

Every student is expected to comply with the student conduct code: “Impermissible behavior includes... interference in the rights of others, interference with university processes, theft of mutilation of college property, disruption, abuse of controlled substances, off-campus behavior, academic dishonesty which includes cheating and plagiarism.”

**\*\*Individual Accommodation**

Hawaii C.C. is committed to provide equal access to the campus, classes, and programs for students who have disabilities. If you have a documented disability and/or related access needs, please see your instructor during office hours or contact Karen Kane of the Ha`awi Kokua Program (933-0702) as early as possible. If you are a student who needs to have an accommodation, please discuss your needs and make your request in a timely manner.

\*\*\*<http://www.hawaii.hawaii.edu/laurab/servicelearning/default.htm>

*Sit down before fact as a little child, be prepared to give up every preconceived notion, follow humbly wherever and to whatever abysses nature leads, or you shall learn nothing*  
~ Thomas Henry Huxley

## Probable Lab Schedule

Week	Day	Field Trip	Lab Reading	Due
1	August 24	Lab Introduction/Film		
2	August 31	The Art of Observation		
3	September 7	Plant Propagation/Intro to Data Collection <sup>‡</sup>	Bornhorst	Trip report; Hypothesis
4	September 14	The Scientific Method/Intro to Report Writing		
5	September 21	Hawaii Volcanoes National Park		
6	September 28	Elevation I		Trip Report
7	October 5	Elevation II		
8	October 12	Intro to Excel and Data Analysis		
9	October 19	Waste		Lab Report
10	October 26	Water Quality Survey		Trip Report
11	November 2	Car survey		<sup>‡</sup> Lab Report & Lab Report
12	November 9	Visit to local farm		Lab Report
13	November 16	Virtual Shopping		Trip Rpt
14	November 23	<b>Thanksgiving Holiday!!</b>		
15	November 30	film		
16	December 7	Climate Change exercise		Trip Report

<sup>‡</sup>Note that the plant propagation lab report is due on 11/2 and is worth double points