

Geography 101-L---- The Natural Environment Lab

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Th: 1:30–4:00pm (CRN: **62103**)

INSTRUCTOR: Toshi Ikagawa, Ph.D.
OFFICE: Na'auao 116
OFFICE HOURS: MTWR: 11:30 a.m. – 1:00 p.m.
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EFFECTIVE DATE: Fall 2009

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

CATALOG DESCRIPTION

Survey of the global environment lab. Analysis of the natural environment through field and laboratory observations/experiments. Emphasis on Hawai'i and on human modification of the environment.

Activities Required at Scheduled Times Other Than Class Times

None

STUDENT LEARNING OUTCOMES

At the completion of the course, the student should learn to:

1. Apply the **scientific method** to study a physical environment: Define a problem for a study, gather and record data, analyze the data, arrive at appropriate conclusions, and report the findings in written form.
2. Use various **instruments**, such as a compass, GPS unit and thermometer, to gather environmental data.
3. Use the metric system, scientific notation, graphs, and geographic and basic statistical measurements.
4. Write a **lab report** using the standard scientific format.

REQUIREMENTS COURSE SATISFIES

At WCC: Meets natural science laboratory course requirement
Bio-Resources Development & Management Certificate

At UH Manoa: Meets DY requirement

PREREQUISITES/COREQUISITES

GEOG 101 (The Natural Environment)

RECOMMENDED BASIC SKILLS LEVEL

Ability to read and write at a college level

LEARNING RESOURCES

Required Lab manual: *The Natural Environment: A Laboratory Manual* by Ikagawa.

Recommended Textbook: *Geography 101 Book* (Online Textbook) by Dennis Nullet.

This textbook can be accessed at: <http://www2.hawaii.edu/%7Edennis/book/>

User ID: geog101
Password: panda

COURSE TASKS

Dear Geography Students:

Welcome to the Geography 101-L course, The Natural Environment Lab. This lab class examines the Earth's Natural Environment. The structure and processes of major environments will be examined.

Assignments:

It is assumed that you read and understand all the assigned part of the textbook **before** each class period (see the class schedule attached) and ready for lab exercise.

Attendance:

Attendance is mandatory, and presence/absence will be evaluated by **lab exercises** you turn in at the end of each class. It is assumed that you know and understand all the materials covered in all lectures and lab exercises (part of which may not be covered in the textbook). Also, any changes in the content, material, schedule, procedure related to the class, announced during any class period will stand, even if you are not there. It is your responsibility to obtain such information from your classmate or any other sources, if you miss any lectures.

ASSESSMENT TASKS AND GRADING

Student Evaluation:

There will be 12 **lab exercises** (60% of the total grades). The rest (40% of the total grades) will be assessed by **attendance** and **participation**.

NOTE: The **Research Project** (Lab 12) is **mandatory**. Without successfully completing and presenting it in class, you will NOT receive a passing grade (See Schedule below).

Grading uses the standard scale:

A: 90.0-100.0%, B: 80.0-89.9%; C: 70.0-79.9%, D: 60.0-69.9%, F: 0-59.9%.

For Cr/NC options, Incomplete ("I" grade), and "W" grade, see the WCC College Catalog.

There is no "N" grade in this class.

NOTE: There is NO extra credit work.

COURSE CONTENT

Week	Subject
1.	Introduction
2.	Geographic grid system: Latitude/longitude & time zones*
3.	Field mapping: Compass/pacing (Map the campus)
4.	Map projections: Great circles, conformality, and equivalency*
5.	Microclimate (Temperature): Comparing Albedo & temperature
6.	Seasons: Sun's altitude, analemma*
7.	Atmospheric moisture: Relative humidity, dew point
8.	Topographic map reading *
9.	Soil and water: Water penetration (Coffee can experiment)
10.	Rocks: Identification and comparison*
11.	Vegetation ecology: Weed transects survey
12.	Climate classification: Köppen climate classification/Big Island climate *
13.	Scientific method: Research project proposal
14.	In class presentation of "Research project" *

*: Indoor labs.

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| 15. | GPS |
| 16. | GIS* |

NOTE: Depending on the weather, this schedule may change without prior notice.

Disabilities Accommodation Statement

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.

Additional Information

Supplies: Color pencils, ruler, protractor, etc.

Legal assumptions:

It is hereby assumed that you will strictly follow all and any reasonable procedures/ethics, etc. that are enforced in this academic institution.

Last revised: August 4, 2009