

GRAYS HARBOR COLLEGE
SYLLABUS
BIOLOGY 102 - GENERAL BIOLOGY II
5 CREDITS
Instructor: Diane Carter
2003-2005

I. COURSE DESCRIPTION

PREREQUISITES: BIOLOGY 100 OR BIOLOGY 101

A study of the major plant and animal groups. Relationships between various plant and animal groups and humans with the central themes being evolution, diversity and unity. 4 lecture hours; 2 lab hours. Satisfies science or lab requirement area A distribution or specific elective for the AA degree.

II. COURSE OBJECTIVES/OUTCOMES

The major objectives and outcomes of this course are as follows:

- A. The student will accurately describe the structure of Whittaker's Five-Kingdom scheme and differentiate between the life forms within each kingdom. (*disciplinary learning*)
- B. The student will identify ecosystem components and describe how these components influence each other. (*disciplinary learning*)
- C. The student will describe how an organism's characteristics can be determined by both environmental and genetic factors. (*disciplinary learning*)
- D. The student will describe how biological evolution accounts for species diversity, adaptation, natural selection, extinction, and change in organisms over time. (*disciplinary learning, critical thinking*)
- E. The student will examine scientific evidence used to develop theories for evolution, speciation, adaptation, and biological diversity. (*disciplinary learning, scientific literacy*)
- F. The student will discuss examples of how scientific theories are supported through detailed inquiry and documentation. (*disciplinary learning, scientific literacy*)
- G. The student will identify and differentiate between 36 common Northwest plants. (*disciplinary learning, critical thinking, using resources*)
- H. The student will describe impacts of humans on the salmon resource of the Pacific Northwest. (*disciplinary learning, social and personal responsibility*)
- I. The student will research a plant or animal species and discuss its place in the ecosystem in which it survives. (*disciplinary learning, critical thinking, using resources*)
- J. The student will identify, present, and evaluate five "current events" that illustrate the evolution, diversity and/or unity themes of this course. (*disciplinary learning, using resources, critical thinking*)
- K. The student will both participate in and facilitate several seminars. (*scientific literacy, critical thinking, social and personal responsibility*)

- L. The student will design and evaluate a research project. . (*scientific literacy, critical thinking, , using resources*)

This course contributes to the Desired Student Abilities of Grays Harbor College as follows:

- Disciplinary learning (4)
- Critical thinking (3)
- Using resources (2)
- Scientific literacy (2)
- Social and personal responsibility (1)

(4) = highest degree of emphasis

(1) = lowest degree of emphasis

III. TEXTBOOK/MATERIALS

Mountain in the Clouds , 2001, by Bruce Brown. Collier Books, New York.

The Beak of the Finch, 1995 by Jonathan Weiner. Vintage Books, New York.

Plants of the Pacific Northwest Coast, Pojar and MacKinnon

IV. COURSE CONTENT AND ORGANIZATION

We will begin seminar on *Mountain in the Clouds* during the first two weeks of the course. *The Beak of the Finch* will be spread over the next seven weeks.

Outdoor labs with plant identification will begin as soon as weather permits.

Students will be expected to present a "current event" approximately every other week.

Lectures will begin with discussion of classification schemes, followed by an overview of ecological principles, and finally, evolutionary theory.

Student research and presentations are due during the last two weeks of class.

The plant identification test will be the last week of class.

V. METHOD OF INSTRUCTION

Seminar: The main method of instruction for this course is through seminar. Students will take turns leading seminars and are expected to come to class prepared to participate in all seminars.

Lecture: Lectures will provide the source information for survey of selected examples of the five kingdoms and background information for the readings, as relevant.

Lab: Labs are designed to enhance learning of course topics by giving the student, "hands on" opportunities via models, slides, dissections, and simulations.

Videos: Include The Salmon Forest, Flight of the Whooping Crane and the PBS series Evolution.

Current Events: Students will present to the class a minimum of 5 "current event" topics during the quarter.

Plant Collection: Students will collect, press and mount a collection of 25 local plants and be tested on the identification (genus, species, common name) of at least 36 local plants.

Class Trip: As part of our lab activities, we will explore the Lake Swano watershed and take a Saturday trip to the rainforest at Lake Quinault. Students are expected to attend all fieldtrips. Students who miss the Quinault fieldtrip will be required to write a thirty-page research paper on the ecology of rainforests.

VI. EVALUATION/ASSESSMENT METHODS

Assessment is a continuous process that will go on throughout this learning experience. The student will accumulate points as s/he completes a variety of assigned tasks including five lecture tests and a course final. Points are given for leadership and participation in seminars and missed classes can not be made up.

The approximate weight given to the graded activities is as follows:

5 tests at 20 points each	=100 points
final	= 50 points
report & presentation	=100 points
5 current events at 5 points	= 25 points
seminar leadership	= 10 points
seminar participation	= 5 points
plant collection	= 25 points
plant test	= 60 points

There may be other opportunities to earn points depending upon the interests and activities of the students.

The grading scale is as follows:	A (94%-100%),	A- (90%-93%)	
	B+ (87%-89%),	B (84%-86%),	B- (80%-83%)
	C+ (77%-79%),	C (74%-76%),	C- (70%-73%)
	D+ (64%-69%),	D (60%-64%)	F (0-59%)