

UNIVERSITY COLLEGE OF THE FRASER VALLEY

COURSE INFORMATION

DISCIPLINE/DEPARTMENT: Biology **IMPLEMENTATION DATE:** Sept. 1999

Revised: _____

<u>Biology 330</u>	<u>Plants and Animals of British Columbia</u>	<u>3</u>
SUBJECT/NUMBER OF COURSE	DESCRIPTIVE TITLE	UCFV CREDITS

CALENDAR DESCRIPTION: An introduction to some of the most common species of plants, birds and mammals of British Columbia. Through lecture, laboratory experience and field trips, students will learn systematic identification of major groups of organisms. The biology of organisms will be discussed with respect to their specific environmental. Students will be expected to take part in a weekend field trip.

RATIONALE: This is a third year course designed to introduce students to some of the most common species of coniferous and flowering trees, shrubs herbaceous plants, birds and mammals which occur in British Columbia. This course would be of interest to Biology and Geography students, as well as those going into education.

COURSE PREREQUISITES: Biology 210 or instructor's permission

COURSE COREQUISITES: None

HOURS PER TERM FOR EACH STUDENT	Lecture	45	hrs	Student Directed Learning		hrs
	Laboratory	45	hrs	Other - specify:		
	Seminar		hrs			
	Field Experience		hrs			
				TOTAL		90 HRS

MAXIMUM ENROLMENT: 35

Is transfer credit requested? **:** Yes **9** No

AUTHORIZATION SIGNATURES:

Course Designer(s): S. Gillies, E. Camm

Chairperson:
Curriculum Committee

Department Head: Edith Camm

Dean: K. Wayne Welsh

PAC: Approval in Principle
(Date)

PAC: Final Approval: October 28, 1998
(Date)

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SYNONYMOUS COURSES:(a) replaces N/A
(course #)(b) cannot take N/A for further credit
(course #)**SUPPLIES/MATERIALS:** None**TEXTBOOKS, REFERENCES, MATERIALS (List reading resources elsewhere)**

Each student will be expected to equip him or herself with field guides appropriate for British Columbia, dealing separately with plants, birds and mammals. Suitable series include Western editions of Peterson Field Guides (Houghton-Mifflin) or Audubon Society Field Guides (Alfred A. Knopf, New York). Also recommended are three field guides from Lone Pine Publishing: MacKinnon, Pojar and Coupe (eds.) Plants of Northern British Columbia (1992), Pojar and MacKinnon eds. Plants of Coastal British Columbia (1994), and Parish, Coupe and Lloyd, eds. Plants of Southern Interior British Columbia (1996).

Also recommended but not required is Ecosystems of British Columbia by D. Meidinger and J. Pojar, Victoria, B.C.: Ministry of Forests Special Report #6, 1991.

OBJECTIVES:

Upon completion of this course, students should be able to:

- (1) Identify common B.C. plant species using correct scientific and common names
- (2) Use correct botanical terminology to describe plants.
- (3) Use a taxonomic key to identify plant to Family.
- (4) Identify by sight common birds of B.C.
- (5) Assign common birds to their correct Order and in most cases Family.
- (6) Identify common mammals of B.C.
- (7) Assign common mammals to their correct Order and Family
- (8) Use soil profiles and plant communities to identify Biogeoclimatic zones.
- (9) Relate distribution of organisms to the characteristics of the Biogeoclimatic Zones in which they occur.

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METHODS:

The course will consist of a series of lectures which provides an overview of one of the major segments of the course. Students will have a chance for practical application of their skills in laboratory and field setting. Wherever possible, local experts will be invited to enhance the field component of the course. A weekend field trip will give the opportunity to investigate bird and animal species active at dusk, dawn and night.

This course is designed to allow the student to develop and demonstrate competence rather than to find areas of weakness. A set of tasks have been designed which permit the student to demonstrate mastery of the course requirements.

STUDENT EVALUATION PROCEDURE:

Grade based on:

Quizzes	45%
Class participation	5%
Final exam	50%

COURSE CONTENT:

There are nine major elements in this course: (1) Field identification of common BC plant species. The student must apply the correct scientific and common name to these plants for full marks. (2) Description of plant structures. Correct botanical terminology will be used to help students when using field guides or "keys" to identify unknown plants. (3) Use of a taxonomic key to identify a plant to plant family. Using a key correctly a student should be able to take an unknown flower and assign it to its proper botanical family -- a first step in finding its correct species name. (4) Sight identification of common birds. This task require the identification of common local bird species from a representative drawing, painting, photograph, or in some cases a museum specimen. (5) Bird Order and Family characters. Students will learn the common structural characters of Orders and Families of Birds found in British Columbia. (6) Sight identification of common mammals. By examining a photo or museum specimen, identify using common name. (7) Assignment of common mammals to their correct order and family. Examine a specimen, and based on its identify and characters, assign it an Order or Family using the correct scientific names. (8) Identification of the Biogeoclimatic Zones of British Columbia (includes knowledge of plant communities and soil profiles). (9) Use of the Biogeoclimatic Zones of BC to clarify ecology of organisms.