

	<p style="text-align: center;">School of Arts & Science SOCIAL SCIENCES DEPARTMENT</p> <p style="text-align: center;">GEOG 274-001 Biogeography Winter 2013</p>
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COURSE OUTLINE

1. Course Description

This course explores the nature and function of Earth's biosphere, with an emphasis on the factors affecting the spatial distribution of organisms, ecosystems, and biological diversity. Major topics include ecological processes, soils, ecosystem description and classification, dispersal, disturbance in the environment, evolutionary processes and speciation, historical biogeography, and mass extinctions. Lab activities will introduce methods for sampling vegetation and animal populations, analyzing data, and interpreting biogeographical theories in terms of real-world situations.

Note: The official Approved Course Description is available on the web at

<http://camosun.ca/learn/calendar/current/web/geog.html> or

<http://camosun.ca/learn/calendar/2010/web/geog.html>

- Please note: this outline will be electronically stored for five (5) years only. It is strongly recommended students keep this outline for your records.

2. Instructor Information

(a)	Instructor:	Lisa Kadonaga (final component, Trisha Jarrett)
(b)	Office Hours:	TBA
(c)	Location:	F340A
(d)	Phone:	370-3378
(e)	Email:	See D2L in-class messaging
(f)	Location:	F338 (Lab Monday 8:30-11:30; Lecture Wednesday 8:30-10:30)
(g)	Website:	http://online.camosun.ca

3. Intended Learning Outcomes

At the end of the course students will be able to:

1. Use ecological and historical perspectives to describe the function and spatial patterns of Earth's biosphere
2. Describe the influence of environmental controls such as water and temperature on the distribution of ecosystems
3. Discuss human influence on the biosphere, in terms of species composition and disturbance regimes.
4. Explain some techniques used to collect and analyze biogeographical data, in order to interpret the spatial distribution of organisms.

4. Course Materials

(a)	Texts	<p><u>Required:</u> MacDonald, G.M. 2003. <i>Biogeography: Space, Time, and Life</i>. John Wiley & Sons, NY.</p> <p><u>Recommended:</u> Pojar, J., and MacKinnon, A. 2004. <i>Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia, and Alaska</i>. Lone Pine Publishing, Redmond, OR.</p>
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Lab materials, information sheets, and additional readings/video links will be available for download through the course website on D2L.

5. Course Content and Schedule

Lectures: Attendance is essential. Some notes will be posted on D2L: online.camosun.ca, but these will not cover all the material we will be discussing in class – you can only get a full picture if you come to class and keep checking the D2L site regularly. Also, exam review questions and hints will not be provided outside of lectures and labs, so people who do attend will have that advantage.

Readings and other assigned materials are an essential part of this course – students are encouraged to keep up with the reading schedule since the information is designed to help you understand the topics we are covering in class. Note that they are fair game for the exams.

Labs: Field work and lab exercises are mandatory for this course. While activities such as field trips may be arranged on a do-it-yourself basis to provide more convenience and flexibility for students (so people don't have to miss other classes), handing in lab work is essential or you may fail the course. Please remember to bring materials (pencil, eraser, ruler, calculator) for lab periods. The labs don't need to be typed, though handwriting should be legible. If labs are very poorly written, remedial instruction may be recommended, since communication is an important part of scientific work. Lab due dates will be specified on the lab materials, though generally a week will be allocated. Note that labs are due at the beginning of the lab period or class – labs that are submitted later in the day, under the office door, may be considered late. The penalty for late assignments is 10% per day or part-day. In cases of illness, the instructor must be notified (D2L messages are fine) prior to the class, otherwise we reserve the right to assign a zero grade. The possibility of a flexible extension credit will be discussed in the first week of class, but if people are misusing this, the concession will be cancelled.

Please review the college's policy on academic dishonesty in coursework, which includes plagiarism. Part of the course instruction will cover correct referencing and how to incorporate secondary sources into your work, so there shouldn't be any excuse for students not knowing that copying from classmates, or cutting and pasting stuff from the internet, counts as cheating. Working together in labs to collect data, or having someone else proofread a finished assignment for spelling and grammatical errors, are acceptable academic procedures. However, passing someone else's work off as your own is not, and will likely get a grade of zero – in the "real world" people have lost their jobs because of that. (Also, relying on others to do all the thinking is not a great idea -- you are giving them more practice so they will probably do better on the exam, at your expense.) Assignments must be written in your own words. We'll go over concepts such as paraphrasing and correct use of quotes.

Exams: There will be a midterm and a final exam. The format for these will be a combination of short answer and long answer questions. They mainly will emphasize the lecture material and readings, though lab material will also be drawn upon.

Illness, family emergencies, etc.: If you miss a lab or exam due to illness or some other serious reason, a doctor's note or other documentation will be required. Exams are difficult to reschedule so please try to make it to the midterm and final. Students who miss an exam for a valid reason must get in contact within 24 hours. In such cases, ONE makeup exam time will be scheduled, and all students needing it will be expected to attend – even if it's at night or on the weekend. People who let it slide and don't bother getting in touch right away may not be allowed to write the makeup.

Course Schedule (tentative – subject to changing situations e.g. guest speaker availability):

Jan 7 – *biogeography applications* (Ch 1,2)

Jan 9 -- introduction continued -- species ranges (Ch 3)

Jan 14 -- *Lab 1 (Agricultural biogeography) – Vavilov's Centres of Origin* (Ch 12)

Jan 16 -- distribution of life, limiting factors, community ecology, "ecological imperialism" (Ch 4, 6)

Jan 21 -- *Lab 2 (Phytogeography and invasive species)*

Jan 23 -- dispersal, Davis and postglacial vegetation, fire ecology, critiques of Clements (Ch 5,8)

Jan 28 -- Lab 3 (Zoogeography)
 Jan 30 -- Evolution, speciation, extinction (Ch 9, 12)
 Feb 4 -- Lab 4 (Community ecology)
 Feb 6 -- carrying capacity, fragmentation, island biogeography, metapopulations, corridors (Ch 13, 14)
 Feb 11 No class
 Feb 13 -- Midterm
 Feb 18 -- Introduction to Scientific Paper Critique assignment
 Feb 20 -- disturbance (Ch 5,7)
 Reading Break Feb 21-23
 Feb 25 -- Critique paper-swap (bring 3 copies of assignment, for instructor and 2 readers); lecture on biogeographic regions (Ch 10, 13)
 Feb 27 -- Biogeoclimatic classification
 Mar 4 -- Lab 5-- Ecosystem Maps
 Mar 6 -- Soils (Ch 2)
 Mar 11 -- Lab 6-- Soils
 Mar 13 -- Describing ecosystems in the field
 Mar 18 -- DEIF fieldwork
 Mar 20 -- Biomes (Ch 6)
 Mar 25 -- DEIF fieldwork continued
 Mar 27 -- climate change, paleo and future (Ch 7)
 Apr 1 No class
 Apr 3 -- Conservation biology (Ch 15)
 Apr 8 -- Lab 7 -- SARA -- identifying factors contributing to species decline
 Apr 10 -- review
 Final exam during exam period Apr 15-23

6. Basis of Student Assessment

Evaluation will be based on accuracy, thoroughness, and neatness. As a general rule, always show your work and keep track of units of measure! When I grade your work, I am looking for proof of your understanding, so do everything clearly and carefully – that way you may get partial credit, even for wrong answers. I endeavour to mark things fairly and consistently, but if you have a question about my assessment, feel free to come to my office and ask about it.

(a)	Labs	35%
(b)	Critique of scientific article and review of 2 student critiques	10%
(c)	Describing ecosystems in the field (DEIF) report	10%
(d)	Midterm exam	20%
(e)	Final exam	25%

7. Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6

73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at **camosun.ca** or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

8. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.