



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF BIOLOGICAL SCIENCES
COURSE OUTLINE

1. **Course: ECOLOGY 501 – ECOLOGICAL AND EVOLUTIONARY APPLICATIONS**

Lab Section:	B01 R	12:30-15:15	BI 190	WINTER 2016
Coordinator:	Dr. J. Vamosi	BI 482	210-9594	jvamosi@ucalgary.ca
Instructor(s):	Dr. J. Vamosi Dr. P. Galpern Dr. P. Barks	BI 482 PF 3192	210-9594 220-7436	jvamosi@ucalgary.ca pgalpern@ucalgary.ca

D2L Course site: d2l.ucalgary.ca (W2016ECOL501L01).

Biological Sciences Department BI 186: (403) 220-3140; biosci@ucalgary.ca

2. **PREREQUISITE(S):** Ecology 425, 429, and one of 417 or 419; and completion of at least 75 units (12.5 full-course equivalents). See section 3.5.C in the Faculty of Science section of the online Calendar (<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>)

NOTE: Prior or concurrent completion of Biology 401, Ecology 419 and 439 is strongly recommended. Ecology 501 is intended to draw on experience gained throughout the Ecology program, and should be taken by students in the final year of the program.

3. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Module 1	Assignments	20%	Module 2	Assignment	10%
Module 1	Final Report	20%	Module 2	Final Report (teams of 2)	30%
Module 1	Presentations (To Be Scheduled)	10%	Module 2	Presentations (To Be Scheduled)	10%

There will **not** be a final examination scheduled by the Registrar.

Each piece of work submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade. On research team assignments (Module 2; Final report), members of the team will be expected to contribute equitably to the product and both will receive the same mark.

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.6](#) of the University Calendar
5. **Scheduled out-of-class activities:** Dates and times of approved class activities held outside of class hours. N/A

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.

6. **Course Materials:** N/A

Online Course Components: This course will involve the use of freeware online tools, such as those offered through RAXML and Genbank. In Module 2, Quantum GIS and R will be taught and used for mapping, spatial and statistical analyses. Class time will be given to learn the basics of these software packages.

7. **Examination Policy:** Students should read the Calendar, [Section G](#), on Examinations. N/A
8. **Approved Mandatory and Optional Course Supplemental Fees:** N/A
9. **Writing across the curriculum statement:** In this course, the quality of the student's writing in laboratory reports will be a factor in the evaluation of those reports. See also [Section E.2](#) of the University Calendar.
10. **Human studies statement:** indicating whether students in the course may be expected to participate as subjects or researchers. See also [Section E.5](#) of the University Calendar.

STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS. Students are expected to be familiar with <http://www.ucalgary.ca/pubs/calendar/current/sc-5-1.html> of the on-line calendar.

See also <http://www.ucalgary.ca/pubs/calendar/current/e-5.html>.

11. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Academic Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K. Student Misconduct](#) to inform yourself of definitions, processes and penalties.
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf.
- Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Biological Sciences, Dr. H. Addy, by email addy@ucalgary.ca or phone 403 220-3140.
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.
- (f) **Student Union Information:** VP Academic Phone: 403 220-3911 Email: suvpaca@ucalgary.ca
SU Faculty Rep. Phone: 403 220-3913 Email: science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca;
Student Ombuds Office: 403 220-6420 Email: ombuds@ucalgary.ca; <http://ucalgary.ca/provost/students/ombuds>
- (g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (h) **U.S.R.I.:** At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval _____ ORIGINAL SIGNED _____

Date _____

Department Approval
For NO Final Exam: _____ ORIGINAL SIGNED _____

Date: _____

E501 co W16; 10/6/2015 11:39 AM

**Ecol 501 - Ecological and Evolutionary Applications
Winter 2016**

DRAFT Schedule

Week	Instructor	Date:	Topic
1	JV	Jan 14	Intro to collections data and species distribution modeling (SDMs)
2	JV	Jan 21	Analyses
3	JV	Jan 28	Assignment #1 due
4	JV	Feb 4	Assignment #2 due
5	JV	Feb 11	Analyses
	JV	Feb 18	<i>Reading week</i>
6		Feb 25	Final Presentations and report submission
7	PG/PB	Mar 3	(a) Intro to macroecology using the North American Breeding Bird Survey and the USGS Pesticide database; (b) Eco-informatics/GIS lab activity (1 of 2)
9	PG/PB	Mar 10	Eco-informatics/GIS lab activity (2 of 2)
10	PG/PB	Mar 17	(a) Assignment #3 due; (b) Research team activities; (c) Statistical how-tos in R
11	PG/PB	Mar 24	(a) Research team activities; (b) Instructor and TA coaching: analysis, presentation and interpretation of results
12	PG/PB	Mar 31	(a) Research team activities; (b) Instructor and TA coaching: analysis, presentation and interpretation of results
13	PG/PB	Apr 7	Final presentations and report submission

GRADE CUTOFFS

86%	A
80%	A-
77%	B+
74%	B
70%	B-
67%	C+
64%	C
60%	C-
55%	D+
50%	D
<50%	F