



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

1. **Course: ECOLOGY 439 – ECOLOGY OF POPULATIONS**

Lecture Sections: L01	MWF	11:00-11:50	SA 017	WINTER 2016
Instructor:	Dr. J.R. Post (Coordinator)	BI 262	220-6937	jrpost@ucalgary.ca
	Dr. J.W. Fox	BI 260	220-5275	jefox@ucalgary.ca

D2L Course name: W2016ECOL439L01: ECOL 439 L01 - (Winter 2016) - Ecology of Populations  
 Biological Sciences Department BI 186; (403) 220-3140; biosci@ucalgary.ca

2. **PREREQUISITE(S):** Ecology 425 and 429  
 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>

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:

<b>Midterm Examination (February 29, 2016)</b>	<b>30%</b>	<b>In-Class</b>
<b>Final Examination</b>	<b>30%</b>	
<b>Laboratory Exercises</b>	<b>35%</b>	
<b>Participation</b>	<b>5%</b>	
<b>Total</b>	<b>100%</b>	

(There will be a final exam scheduled by the Registrar's office.)

OVERALL PERCENTAGE – LETTER GRADE

96%	A+	70%	C+
90%	A	66%	C
85%	A-	60%	C-
80%	B+	55%	D+
77%	B	50%	D
73%	B-	<50%	F

"Each piece of work (laboratory report, midterm test or final examination) 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."

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.3 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.** If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

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

7. **Examination Policy:** All examinations are closed book. The use of camera devices, MP3 Players and headphones, or wireless access devices such as cell phones, Blackberries, etc., during the examinations will not be allowed. Calculators are not allowed for this examination. Students should also read the Calendar, [Section G](#), on Examinations.
8. **Writing across the curriculum statement:** e.g. “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.
9. **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>.

#### 10. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **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](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](mailto: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 (FOIPPA). 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](mailto:suvpaca@ucalgary.ca)  
 SU Faculty Rep. Phone: 403 220-3913 Email: [science1@su.ucalgary.ca](mailto:science1@su.ucalgary.ca), [science2@su.ucalgary.ca](mailto:science2@su.ucalgary.ca) and [science3@su.ucalgary.ca](mailto:science3@su.ucalgary.ca);  
 Student Ombuds Office: 403 220-6420 Email: [ombuds@ucalgary.ca](mailto: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](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

Department Approval \_\_\_\_\_ ORIGINAL SIGNED \_\_\_\_\_ Date \_\_\_\_\_

DEPARTMENT OF BIOLOGICAL SCIENCES  
 COURSE OUTLINE  
**ECOLOGY 439**

**ECOLOGY OF POPULATIONS**

TERM: Winter 2016 SECTION NO: 01

PREREQUISITE: Ecology 425 and 429

A student may not register in a course unless he/she has a grade of at least C- in each prerequisite course.

COURSE LECTURER(S): Dr. J.R. Post BI 262 220-6937 jrpost@ucalgary.ca  
 Dr. J.W. Fox BI 160 220-5275 jefox@ucalgary.ca

LECTURES: L01 MWF 11:00-11:50 SA 017

LABS: B01/02 R/T 09:00-11:50 BI 190

TEXT: Reserve Reading: See attached list.

MARK DISTRIBUTION: A. Composition of Final Grade

<b>Midterm Examination (February 29, 2016)</b>	<b>30%</b>	<b>In-Class</b>
<b>Final Examination</b>	<b>30%</b>	
<b>Laboratory Exercises</b>	<b>35%</b>	
<b>Participation</b>	<b>5%</b>	
<b>Total</b>	<b>100%</b>	

(There will be a final exam scheduled by the Registrar's office.)

The student is responsible for the material covered in both lecture and laboratory on a cumulative basis.

**\* No late papers will be accepted for grading.**

## Ecology 439 - 2016- Tentative Lecture Schedule

Day	Date	Lecture
M	<b>Jan</b>	11 1: Introduction to Population Ecology
W		13 2: Modeling Population Growth: Exponential and Geometric Growth
F		15 3: Density dependence
M		18 4: Time lagged density dependence
W		20 5: Environmental and Demographic Stochasticity I
F		22 6: Environmental and Demographic Stochasticity II
M		25 7: Environmental and Demographic Stochasticity III
W		27 8: Practice session
F		29 9: Statistical techniques for population ecology: time series analysis I
M	<b>Feb</b>	1 10: Time series analysis II
W		3 11: Time series analysis III
F		5 12: Case study: stochastic population dynamics and time series analysis
M		8 13: Practice session
W		10 14: Age- and stage-structured Population Growth
F		12 15: Age- and stage-structured Population Growth II
M		15 <b>Reading Days (no lecture)</b>
W		17 <b>Reading Days (no lecture)</b>
F		19 <b>Reading Days (no lecture)</b>
M		22 16: Age- and stage-structured Population Growth III
W		24 17: Age- and stage-structured Population Growth IV
F		26 18: Review/practice session
M	<b>Mar</b>	29 <b>19: Midterm</b>
W		2 20: Predator-Prey Interactions
F		4 21: Predator-Prey Interactions
M		7 22: Predator-Prey Interactions
W		9 23: Predator-Prey Interactions
F		11 24: Competitive Interactions
M		14 25: Competitive Interactions
W		16 26: Competitive Interactions
F		18 27: Competitive Interactions
M		21 28: Host-Parasite Interactions
W		23 29: Host-Parasite Interactions
F		25 <b>Good Friday (no lecture)</b>
M	<b>Apr</b>	28 30: Space and Meta-Populations
W		30 31: Applications to Harvest Dynamics
F		1 32: Applications to Harvest Dynamics
M		4 33: Applications to Harvest Dynamics
W		6 34: Applications to Conservation Biology
F		8 35: Applications to Conservation Biology
M		11 36: Applications to Conservation Biology
W		13 37: Review Session

The schedule may deviate from this due to the needs of the class. Lectures 1-18 will be taught by Dr. Fox. Lectures 20-37 will be taught by Dr. Post.