

BIOL 331 ECOLOGY

FALL 2008



Lecture: Monday - Wednesday 9:00 - 10:15 SGC 122 (formerly B-126)
Lab: Wednesday 2:00 - 5:00 Fine Arts 102

Text: Manuel C. Molles Jr. 2008. *ECOLOGY: Concepts and Applications*. Fourth edition. McGraw Hill.

Lab Manual: Kingsolver, R. W. 2006. *Ecology on Campus*. Pearson / Benjamin Cummings.

Supplies: Calculator.

Instructor: Dr. Elizabeth M. Skendzic
Office: MLH 243
e-mail: emskendzic@lcsc.edu
Phone: (208) 792-2782
Office hours: Mon 2:00 – 3:00; Tue/Thu 9:00 – 10:00, or by appointment

Course objectives:

- To get familiar with the approaches and methodologies used by ecologists.
- To gain knowledge on the diversity, structure and function of ecosystems.
- To understand the interactions of populations and ecosystems.
- To understand the relation between biodiversity and ecosystem stability.
- To critically review scientific literature.
- To encourage thoughtful observation, critical thinking and biological inquiry.
- To participate in the scientific process by performing experiments, obtaining data and presenting results.

Course description:

This is a lecture and lab course that follows a traditional approach where topics are studied in lecture and/or through laboratory exercises.

This is a Web Enhanced Course

Course materials are available through BbCE. The purpose is to make available course announcements, lecture outlines and readings. It is essential that you retrieve this information on a regular and timely basis. If you need help using BbCE call (208) 792-2239 or email bbce@lcsc.edu

Lecture:

Lectures are presented using the text's images and tables. A tentative schedule is included below; changes will be announced in class. You are expected to review the text material before coming to class and to download lecture outlines to facilitate note taking. Selected readings and homework assignments will complement the lecture topics and help you review the material. Students will take turns leading discussions of selected science reports; all students are expected to read the assignments and participate in discussions.

- There will be 3 lecture exams and a final exam. They will consist of essay, short answer, multiple choice and true/false questions or a combination. Exams will include material covered in class as well as information from articles and homework assignments. No exam score will be dropped, there are no exam make-ups and no exams can be taken earlier. If an exam is missed due to a medical reason, a doctor's note is required. Approved make-up exams will be completed at the end of the semester; format may vary.
- Class participation will consist of leading an article discussion and participating in the discussions. Leaders' role is to guide their peers in a discussion of the topics presented in the assigned reading. Discussions will be held on Wednesdays; leaders must turn in reading questions ONE WEEK in advance. Discussion readings and questions will be available through BbCE.

How to lead a discussion
Ahead of time: <ul style="list-style-type: none">○ Make a list of background terms that you consider necessary to understand the reading.○ List the chapter(s) in the text that relate to the reading.○ Prepare a list of questions open for discussion.
During the discussion: <ul style="list-style-type: none">○ Begin with a short, concise statement of the central question being addressed.○ Explain the nature of the reading (science report, research article, etc) and the background of the author(s).○ Think of ways to get students involved in the discussion (remember that the class may be hesitant to speak up!)○ Use a variety of questions and encourage critical thinking.○ When possible, address the experimental approaches taken to address the question.○ Give students enough wait time to answer BUT remember to keep track of time; you need to cover the entire reading in 20-25 min.○ Acknowledge and respond to students who provide input.○ Maintain a friendly, collaborative atmosphere.○ Wrap up! Help students arrive at a meaningful conclusion to the discussion and point at the future direction of this research.

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- Maintain a friendly, collaborative atmosphere.
- Wrap up! Help students arrive at a meaningful conclusion to the discussion and point at the future direction of this research.

Laboratory:

Attendance is required in laboratory and ONLY those students attending lab will get credit. Due to the size of the class each student will work independently. Laboratory exercises are selected from the *Ecology on Campus* Lab Manual. The Lab Manual format allows tearing-off individual exercises.

- There are no lab make-ups; you can drop ONE lab exercise score (lowest and/or missed, including absences due to illness).

- The Laboratory exam will consist of short answer, multiple choice and true/false questions of topics covered in the lab exercises. It may also include demonstrations, tables, or set-ups used in the lab exercises.

Course grading will be based on **800** points:

	Points
3 exams @ 100 points each	300
Final exam	100
2 Leading discussions @ 15 points each	30
Participating in discussions	20
10 Homework assignments @ 10 points each	100
10 Lab exercises @ 20 points each	200
Lab exam	50
TOTAL	800

- Grades will be available through BbCE.

Cheating will not be tolerated.

In the event of academic dishonesty, those involved **will receive an "F" grade for the assignment and** will be referred to the Director of Student Life. As defined in the LCSC Student Handbook, Academic Dishonesty includes:

- a) **Cheating**—intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term "academic exercise" includes all forms of work submitted for credit hours.
- b) **Fabrication**—intentional and/or unauthorized falsification or invention of any information or the source of any information in an academic exercise.
- c) **Collusion facilitating academic dishonesty**—intentionally or knowingly helping or attempting to help another to commit an act of Academic Dishonesty.
- d) **Plagiarism**—the deliberate adoption or reproduction of ideas or words or statement of another person as one’s own without acknowledgment.

The Code of Conduct can be found online at: <http://www.lcsc.edu/osl/SHB/SHBcodeofconduct.htm>

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment to discuss this with me as soon as possible.

Date	Lecture topics / Textbook reference	Readings	Laboratory
Aug 25	Class introduction		
27	Introduction / Chapter 1	Reading 1	No lab this week
Sept 1	<i>Labor day – no classes</i>		
3	Life on Land / Chapter 2	Reading 2	No lab this week
8	Life in Water / Chapter 3		
10		Reading 3	LAB 1
15	Temperature Relations / Chapter 4		
17		Reading 4	LAB 2
22	EXAM 1		
24	Water relations / Chapter 5		LAB 3
29			
Oct 1	Energy and Nutrient Relations / Chapter 6	Reading 5	LAB 4
6			
8	Social Relations / Chapter 7	Reading 6	LAB 5
13			
15		Reading 7	LAB 6
20	EXAM 2		
22	Population Genetics and Natural Selection / Chapter 8		LAB 7
27			
29	Population Distribution and abundance / Chapter 9	Reading 8	Lab 8
Nov 3			
5	Population dynamics / Chapter 10	Reading 9	LAB 9
10			
12	EXAM 3		
17	Exploitative Interactions / Chapter 14		
19		Reading 10	LAB 11
Nov 24 - 28	<i>THANKSGIVING BREAK</i>		
Dec 1	Mutualism / Chapter 15		
3		Reading 11	LAB EXAM
8	Species interactions and Community Interaction / Ch 17		
10			
17	FINAL EXAM	Wednesday 12/17	9:00 – 10:50

The instructor reserves the right to make changes to this schedule.

Reading schedule

	Date	Reading Title	Reading Leader
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			