

# Principles of Ecology

**NRES/BIOS 220**

**11:00 – 11:50 MWF**

**Spring 2011**

## **Dr. David Wedin**

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**Office Hours:** The best way to catch us is to send an email with your question, and, if necessary, schedule an appointment. Feel free to drop by our offices, but we're often out.

**Required Textbook:** Robert E. Ricklefs, *The Economy of Nature*, 6th ed.

**Course Prerequisites:** Introductory college biology (e.g. BIOS101) and college algebra (e.g. MATH 101 or 103)

## **Course Goals**

- Explain the major principles of ecology and recognize the associated scientific terminology.
- Introduce ecology as a quantitative, integrative discipline that draws on both life and earth sciences to understand the relationship between organisms and their environment.
- Understand the major research challenges facing ecologists in a period of unprecedented global change, including the global carbon budget and the loss of biodiversity.
- Develop the quantitative skills needed to analyze and understand population growth, species interactions and ecosystem dynamics.
- Understand how ecologists use the scientific method: the description of patterns in natural and managed ecosystems, the formulation of hypotheses and models to explain those patterns, and the development of experiments to test hypotheses.

## **Expectations**

You should plan on spending a minimum of two hours studying for each hour of class. This includes doing the assigned readings before lecture, reviewing previous lecture notes, and jotting down questions that you have. Our goal is understanding, not memorization. Try printing out the PowerPoint lecture notes from Blackboard prior to class (use the multiple slides per page setting) and using them for your note taking.

## **Grading**

Approximately 12 pop quizzes or assignments; top 10 @ 2 pts each = 20pts

4 term exams @ 20 pts each; best 3 scores = 60pts

Final comprehensive exam = 20 pts

Total possible = 100 pts

## **Grading Scale (% of available points)**

A+	97.0 – 100	A	90.0 – 96.9		
B+	89.0 – 89.9	B	80.0 – 88.9		
C+	79.0 – 79.9	C	70.0 – 78.9		
D+	69.0 – 69.9	D	60.0 – 68.9	F	<59.9%

**MAKE-UP EXAMS ARE NOT NORMALLY GIVEN.** Because you will throw out your worst exam score, theoretically you can miss one of the exams. However, skipping an exam is

not a good strategy. Plan on taking them all; you never know when the flu will hit! Depending on your attendance and performance, we may allow students to skip the final and use their four term exams for their grade.

### **Pop quizzes**

Approximately one pop quiz will be given each week. The quiz may be:

- at the beginning of class about the reading assignment or previous lectures
- a problem done individually or in small groups during class
- at the end of the class about the lecture material
- a brief take home problem set or assignment (assigned in class or on Blackboard)

No make up pop quizzes will be given. The 10 with the highest score will count for 20% of the total final grade. **Always bring a calculator to class, including exams!** Questions will often be simple quantitative exercises.

### **Attendance**

Even though we don't formally take attendance, it is mandatory. We keep track of attendance using pop quizzes. If you blow a quiz, but are present, you still get 1.0 out of 2.0 pts. If you're going to miss class, send Dr. Wedin an email. When assigning final grades, we use unexcused absences to decide whether borderline grades go up or down. You are responsible for all material presented during lecture, including assignments and announcements. This includes material presented in lecture that is not in the text or in Powerpoint files on Blackboard.

### **Blackboard / Powerpoint**

Check Blackboard regularly for announcements, assignments, readings, etc. Be sure that the email address Blackboard has for you is current. Many, but not all, of the outlines, graphs and figures used during the lecture will be posted as Power Point presentations on Blackboard. These presentations are an excellent resource, but they **cannot** replace good lecture notes. Readings on Blackboard will note whether they are required or optional.

#### **PowerPoint tips :**

- 1) contact computer services if you have trouble with your Blackboard account
- 2) PowerPoint files are often huge, so don't try downloading them over a modem
- 3) Save the files to a USB minidrive on a campus computer for study and printing later.
- 4) Many of the graphics used in lecture are copied from your textbook: delete them from the PowerPoint before printing to save time and paper.
- 5) Use the "handout" option under printing in Power Point to save paper.

### **Problems**

Please contact the instructors in person or by email with any problem. If you're having problems with the material, seek help early rather than later in the term. Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.