

ECOLOGY LABORATORY

BIO 306
FALL 2004

Richard L. Boyce

Email: boycer@nku.edu

Web page: <http://www.nku.edu/~boycer/>

Class web page: <http://www.nku.edu/~boycer/ecollab.html>

Blackboard link: <http://learnonline.nku.edu>

SC 153

x1407

Meetings: W 1-4:50, SC 165

Office Hours: M 11-1, Tu 11-12, 1-2

Texts:

Brower, J.E., J.H. Zar, and C.N. von Ende. 1998. Field and laboratory methods for general ecology. 4th ed. WCB/McGraw-Hill, Boston.

Pechenik, J.A. 2004. A short guide to writing about biology. 5th ed. Pearson Longman, New York.

Course Description: Ecology is the scientific study of the interactions between organisms and their environments. The goal of ecology is to explain the distribution and abundance of organisms through an understanding of how they interact with their abiotic (non-living) and biotic environments. Humans have been doing this for as long as we have existed as a species. Ecology, as a science, seeks to quantify these explanations through observation and experiment. In BIO 306, we will be concentrating on how ecologists acquire and analyze data in order to further the science. This will be achieved through field and lab work, data analysis and writing. Students should come to this course with a basic background in biology and mathematics, a strong interest in the scientific process and the desire to participate in field exercises.

This is a Blackboard course. Course materials, including data sets and running grade averages, will be posted on Blackboard. The instructor will show you how to access materials

Co- or prerequisite: BIO 304 (General Ecology)

Attire & Equipment

This is a **field** course. Thus, appropriate dress is critical. If you are not dressed appropriately, you may not be allowed to participate. We are likely to encounter poison ivy, various brambles and briars, steep slopes, muddy areas, rain, etc. Thus, the following items are required:

- Long** pants—shorts don't provide much protection against briars, nettles or poison ivy
- Sturdy shoes—hiking boots, work boots, etc.—with treads. Sneakers/running shoes will do but don't provide much ankle support. Sandals will **not** do.
- Water bottle
- Snacks
- Raincoat/other coat as needed
- Hat
- Sunscreen
- Field notebook
- Backpack

As a field course, we will be spending a good deal of time on our feet, walking over rough terrain. If this presents difficulties for you, you should contact me as soon as possible so that we can accommodate your needs. See also the note about students with disabilities (see below).

Course Schedule: Note that this is a **tentative** schedule. Changes will be posted on the web page, which you should check regularly. Some field trips may be canceled due to weather. However, we will generally go out in a light rain or snow, so be prepared!

Date	Location
8/25	A.J. Joly tree identification workshop (Field Trip)
9/1	Steffen Property tree survey (Field Trip)
9/8	Lloyd Wildlife/Adair tree survey (Field Trip)
9/15	Data analysis (Lab)
9/17	No class (tentative) <i>Draft of Steffen Property Report Due</i>
9/24-9/26	Weekend field trip (tentative) to Edge of Appalachia Preserve (Field Trip)
9/29	St. Anne's Convent Tree Population Dispersal (Field Trip) <i>Steffen Property Report Due</i>
10/6	St. Anne's Convent Invertebrate Sampling & Litter Collection (Field Trip) <i>Lloyd Wildlife/Adair Report Due</i>
10/13	Data analysis and Soil Invertebrate & Litter Prep (Lab) <i>Edge of Appalachia Report Due</i>
10/20	NKU Campus Plant Reproductive Effort (Field Trip) <i>Tree Population Dispersal Report Due</i>
10/27	Grassy Creek Aquatic Sampling (Field Trip) <i>Soil Invertebrate Report Due</i>
11/3	Mill Creek Aquatic Sampling (Field Trip)
11/10	Data analysis (Lab)
11/17	Spring Grove Cemetery Demography (Field Trip) <i>Plant Reproductive Effort Report Due</i>
11/24	No class—Thanksgiving Break
12/1	Data analysis (Lab) <i>Aquatic Sampling Report Due</i>
12/8	Lotka-Volterra Competition (Lab) <i>Litter Decomposition Report Due</i>
12/15	<i>Lotka-Volterra Competition Report Due</i>

Grading Policy: Grading will be based on participation and field/laboratory reports. Reports will follow the format of a scientific paper, with a Title, Introduction, Methods & Materials, Results, Discussion, Acknowledgments, and References/Literature Cited. Handouts will be made available later in the course describing the requirements of each report. The readings from Pechenik will be very helpful in writing these reports.

Attendance for all class meetings (field trips and laboratory meetings) is **mandatory**. Please avoid habitual tardiness, as this disrupts the class, and you may miss the van for field trips. If you miss a meeting for medical reasons, you must give the instructor a written statement to that effect signed by the attending physician. If you missed a meeting for a non-medical emergency, you must submit appropriate written documentation of the emergency; however, acceptance of an excuse for a non-medical emergency is at the discretion of the instructor. If a meeting is missed due to a situation that could have reasonably been anticipated, you will lose participation points. You must submit excuses within seven days after missing a meeting; later submissions will not be accepted.

Reports are due on the date given. Late reports will lose points, and the loss will grow geometrically. A report that is late one day will lose 2 points, one late two days will lose 4 points, one late three days will lose 8 points, etc. So it is in your interest to hand them in on time! Note that weekends will not be counted, due to the difficulty of reaching the instructor on those days. There is no final exam. There is no possibility for extra credit projects.

<u>Points</u>		<u>Grading Scale</u>	
Reports (9 @ 100 points each)	900 points	A	90-100% 945-1050 points
Participation (10 x 15 meetings)	150 points	B	89-89% 840-944 points
		C	70-79% 735-839 points
		D	60-69% 630-734 points
<u>Total Points</u>	<u>1050 points</u>	F	0-59% 0-629 points

Academic Dishonesty: The work you will do in this course is subject to the **Student Honor Code**. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain an academic advantage over fellow students or avoid academic requirements. More specifically, academic misconduct includes cheating (using unauthorized materials, information, or study guides), plagiarism, falsification of records, unauthorized possession of examinations, intimidation, and any other action that may improperly affect the evaluation of your performance. It also includes assisting others in any such acts for attempts to engage in such acts. Violations of the Honor Code will result in actions that may range from grade penalties (including lowering a grade to outright course failure) to disciplinary action from the University's Honor Council. A complete description of the Honor code may be found at <http://www.nku.edu/~deanstudents/HonorCode.htm>. You are also encouraged to familiarize yourself with the Code of Student Rights and Responsibilities at <http://www.nku.edu/~deanstudents/Rights-Contents.htm>.

Withdrawal: The last day to withdraw with a “W” is October 30, 2004. Late withdrawals after this date will require verification of circumstances beyond your control (i.e., serious illness, employment change, death).

Cell Phone, Beepers, and Tobacco Products: Please turn off all cell phones and beepers while this class meets. Even better, don't bring them! This is not only courteous to your fellow classmates, but it minimizes interruptions the flow of learning in this class. If your cell phone or beeper goes off, you may be asked to leave or otherwise no participate in the class. Also, no tobacco products of any kind are allowed in this class. Again, this is a courtesy to your classmates and the learning process. Please note that the instructor reserves the right to dismiss or to have removed a disruptive student from the laboratory in accordance with the appropriate College of Arts and Science Policy, which is posted in Blackboard.

A note for students with disabilities: If you have a disability that may prevent you from fully demonstrating your abilities in this class, you are encouraged to contact Disability Services (859-572-5180, <http://www.nku.edu/~disability/>). Also, please contact the instructor as soon as possible to discuss any accommodations that might be necessary to ensure your full participation and to facilitate your educational opportunities.

N.B. This syllabus is subject to change at the discretion of the instructor.