

BIO 304—GENERAL ECOLOGY (FALL 2004)

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SC 153
x1407

Lectures: MWF 9:00-9:50 am, SC 301
Office Hours: M 11 am-1 pm, Tues 11 am-12 pm, 1-2 pm

Text: Smith, R.L., and T.M. Smith. 2001. Ecology and field biology. 6th ed. Benjamin Cummings, New York.

Course Description: This course provides students with a general introduction to some of the structural and functional components of nature. Ecology as a science involves the study of interactions between organisms and their environment and how those interactions influence the distribution and abundance of organisms. Ecological investigations are often empirical in nature and involve hypotheses testing through observation and/or experimentation. We will consider data generated from such investigations throughout the semester, and we will analyze whether these data support or refute current ecological theories. It is important that you gain a perspective of the concepts involved in ecology, as well as their strengths and limitations. Thus, this is not a class of memorization. Interactions between organisms and their environment can take place at many different levels. We will consider these interactions beginning with the individual organism, progressing to populations, then followed by communities, ecosystems and finally the biosphere as a whole.

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

Grading Policy: There will be three hour exams given during the semester and a comprehensive (cumulative) final exam. The hour exams will focus on the most recently covered sections of material (since the last exam), and exam questions will be derived primarily from topics covered in lecture (unless otherwise indicated). Each exam will be announced at least one week prior to the exam date. Exams will consist of some combination of short answers, matching, fill-in-the-blank, and essay questions. Also, all questions will be derived from lecture material and information in the textbook. There will also be two reading-discussion projects and one homework. There is only one possible way to earn extra credit points. You may earn 5 points each for attending 2 seminars during the semester (a total of 10). You cannot earn more than this. The point values are as follows:

		<u>Grading Scale</u>	
Exam 1	100 points	A	90-100% 486-540 points
Exam 2	100 points	B	80-89% 432-485 points
Exam 3	100 points	C	70-79% 378-431 points
Final Exam	150 points	D	60-69% 324-377 points
Reading-Discussion		F	0-59% 0-323 points
Projects (2@30 pts)	60 points		
<u>Homework</u>	<u>30 points</u>		
Total Points	540 points		

Missed Examinations: Missed exams must be taken within one week of the scheduled exam. If you miss an examination for medical reasons, you must give the instructor a written statement to that effect signed by the attending physician. If you missed an examination 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 an exam is missed due to a situation that could have reasonably been anticipated, you will receive a grade of 0. Make-up exams may be given in any

format. You must submit excuses within seven days after missing the exam; later submissions will not be accepted.

Reading-Discussion Projects: For each Discussion Project, a current topics paper from an ecological journal will be assigned for everyone to read (article to be available on-line). An on-line discussion in Blackboard will then be conducted, to which all students will be required to contribute. Each student will then write a 1-2 page summary of the paper to be handed in on the day of the discussion. The details of the summary report will be given in a handout later in the term. On the day of the discussion, everyone will take an individual quiz based on the material covered in the paper. Students will then break out into groups to discuss the results and ideas of the paper while answering questions in a group quiz. We will end the project with a class discussion of the issues.

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).

Attendance Policy: You are strongly encouraged—but not required—to attend all class meetings. One exception is the reading-discussion projects; you **must** be in attendance to receive credit for the individual group quizzes. Although your attendance record is not calculated into your overall course grade, students with several absences usually do not perform well on exams. If you miss a lecture, it is your responsibility to obtain notes from classmates or the instructor. Note that attendance will be taken during the 1st 3 weeks of the semester to comply with federal regulations. Please avoid habitual tardiness, as this disrupts the class. Most students excel in this class only if they put in at least two hours of study outside class for every hour of lecture.

Cell Phone, Beepers, and Tobacco Products: Please turn off all cell phones and beepers before entering the classroom. Even better, don't bring them! This is not only courteous to your fellow classmates, but it minimizes interruptions to the delivery of subject information and the flow of learning. If your cell phone or beeper goes off, you may be asked to leave. 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 classroom 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.

Remember, it is your responsibility to attend class, study and fully understand the material presented in this course! An outline of topics that are expected to be covered is given below. **N.B.** This syllabus is subject to change at the discretion of the instructor.

TENTATIVE LECTURE SCHEDULE

PART	DATES	TOPIC	TEXTBOOK READING
1	Aug. 23, 25	History of Ecology	Chapter 1
	Aug. 27, 30, Sept. 1, 3	Physical Environment	Chapters 2-4
	Sept. 8, 10, 13, 15, 17	Adaptations	Chapters 5-8
	Sept. 20	Decomposition	Chapter 9
	Sept. 22	EXAM I	
2	Sept. 24, 27, 29	Population Ecology	Chapters 10, 11, Appendix B, pp. 762-765
	Oct. 1	Homework Due	
	Oct. 1, 4, 6	Competition, Life History Patterns	Chapters 12-14
	Oct. 8, 11	Predation & Herbivory	Chapters 15, 16
	Oct. 13	Parasitism & Mutualism	Chapter 17
	Oct. 15	Group Discussion Reading 1	To be announced
	Oct. 20	EXAM 2	
3	Oct. 22	Ecological Genetics	Chapter 19
	Oct. 25, 27, 29	Community Ecology	Chapters 20, 21
	Nov. 1, 3, 8	Succession	Chapter 22
	N.B. No class Nov. 5 th (KAS)		
	Nov. 10, 12	Landscape Ecology	Chapter 23
	Nov. 15	Group Discussion Reading 2	To be announced
	Nov. 17	EXAM 3	
4	Nov. 19, 22	Ecosystem Ecology	Chapter 24
	Nov. 29, Dec. 1, 3	Nutrient Cycling & Human Impacts	Chapters 25, 26
	Dec. 6, 8	Biogeography	Chapter 27
	Dec. 10	Global Change	Chapter 32
	Monday, Dec. 13, 8-10 am	FINAL EXAM--comprehensive	