Ecology: Spring 2011

Lecture: TTh 12:30 to 2:00 in CBA 4.328

Instructor: Dr. Martha Maas

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office hours: Fridays from 10:00 to 12:00 or by appointment

The only way to contact me outside of class time and office hours is by email. I check my email around 9 a.m. and around 8 p.m. I will get back to you as soon as I can and definitely within 24 hours of receiving your email.

Discussion sessions (begin next week- January 25th)

50940: W, 1-2, CBA 4.338
50945: T, 2-3, GAR 2.128
50950: W, 2-3, GAR 2.128
50955: T, 3-4, CBA 4.346

Course content and goals

Ecology is the scientific study of the relationships between living organisms and their environment, including their relationships with other living organisms. The primary goal of this course is to provide you with an introduction to all of the major areas in the field of ecology. Fundamental concepts, central questions, and essential knowledge of each area will be emphasized.

To encourage your interest in ecology and your participation in class, I do not plan to give lengthy lectures. Instead, we will use lecture time to review important concepts from the textbook and to read and discuss articles and papers.

Discussion sessions will be conducted by your teaching assistant (TA). Your TA will guide the class in discussing articles, reviewing major concepts, and preparing for exams. Each student is required to *prepare for, attend, and participate in* both lecture and discussion.

Assigned Readings: Over the course of the semester, I will assign chapters from the textbook and additional reading material (articles, papers, websites, etc.). Additional reading material will either be provided in class or posted on Blackboard. You are required to read the assigned reading ***before*** class and ***bring the textbook and/or reading to lecture***.

Textbook: Ricklefs, R. E. The Economy of Nature. Freeman & Co., New York., 6th Edition

Grading

Exams (150 points possible)
There will be four exams on the dates shown below. Each exam will be worth 50 points. Students will not be able to make up an exam, but we will drop the lowest score. Exams will be a mixture of matching, fill-in-the-blank, short answer and short essay questions. If you believe that there has been a grading error, you must meet with us to talk about your concerns within ***ONE WEEK*** of receiving your graded exam.

Homework (60 points)
There will be four homework assignments worth 15 points each. Late homework will NOT be accepted. The homework assignments will be posted on Blackboard (Homework One will be posted on 1/25/11).

Participation (40 points)
We will record attendance and participation at each lecture (see grading rubric at end of syllabus).

Quizzes (50 points possible)
There will be six 'pop' quizzes during discussion. Each quiz will be worth 10 points. Students will not be able to make up a quiz, but we will drop the lowest score.

This gives a total of 300 possible points. The course grade will be computed by dividing the sum of all points earned by 3.0 to obtain a final score based upon a 100 point scale. No extra credit opportunities will be offered. I will use the plus/minus grading system. In this course your final course grade will be one of the following: 93-100 points = A, 90-92 points = A-, 87-89 points = B+, 83-86 points = B, 80-82 points = B-, 77-79 points = C+, 73-76 points = C, 70-72 points = C-, 60-69 points = D, below 60 points = F.

Policy on scholastic dishonesty: Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the university. Policies on scholastic dishonesty will be strictly enforced.

Students with disabilities: If you require **additional support or special test-taking conditions**, please let us know and bring a letter of documentation from the **Disabilities Office** (SSB 4.100, 471-6259) in plenty of time for special arrangements to be made. If you are allowed extra testing time, you may be taking your exams at the SSD office. It is your responsibility to download the "Scheduling an Exam/Test Form" from: http://www.utexas.edu/diversity/ddce/ssd/forms_docs.php and to see that this form is completed and delivered to SSD.

Accommodations for religious holidays: As per university policy, accommodations will be made for religious holidays. The student must make the instructor aware in writing of a religious-related absence by February 4, 2011.

Classroom rules

Students are encouraged to use computers in lectures or discussion sessions- INA PRODUCTIVE MANNER. That means you should not use Facebook or Twitter, visit unrelated web sites, send text messages/emails, etc.

While this is a biology class, not a class in ethics, policy, or economics, some of the material we will be discussing has such aspects. Differing opinions on such topics as prevention of animal cruelty versus preservation of endangered species are welcomed, and no student will be graded (up or down) on his or her opinion on such matters.

Schedule (subject to change)

Date	Lecture Topic	Lecture Activity	Homework
T, Jan 18	1: Introduction to class	Name cards, Lecture Groups	RR: Ch. 1 Reading 1: Lessons from the Wolf
Th, Jan 20	2: Introduction to Ecology and Yellowstone Ecosystem	Discussion of Ch 1 and Reading 1	RR: Chs 2, 3, 4
T, Jan 25	3: Variation in and adaptations to the abiotic environment	Discussion of Chs 2,3,4	Reading 2: Antarctic sea ice- a habitat for extremophiles
Th, Jan27	4: Extremophiles	Discussion of Reading 2	Reading 3: Climate Change and Human Health
T, Feb 1	5: Climate Change	Discussion of Reading 3	RR: Ch 5
Th, Feb 3	6: Introduction to Biomes	Discussion of Ch 5	Homework 1: Yellowstone Biome (due 2/8 in lecture)
T, Feb 8	7: Yellowstone Biome	Discussion of Homework 1	Study for Exam One
Th, Feb 10	**Exam One (Topics 2-7)**	Exam One	RR: Ch 7
T, Feb 15	8: Life Histories	Discussion of Ch 7	Reading 4: Human Parental Effort *and* Life-history Evolution
Th, Feb 17	9: Life Histories	Discussion of Reading 4	RR: Ch 10, Reading 5: Corridors in fragmented landscapes
T, Feb 22	10: Spatial Structure of Populations	Discussion of Chapter 10 and Reading 5	RR: Ch11
Th, Feb 24	11: Population Growth and Regulation	Activity based on Ch 11	Homework 2: Yellowstone Wolf Population (due 3/1 in lecture)
T, Mar 1	12: Yellowstone Wolves	Discussion of Homework 2	RR: Ch 12
Th, Mar 3	13: Population Dynamics	Discussion of Ch 12	Reading 6: Small mammals
T, Mar 8	14: Cycles of Small Mammals	Discussion of Reading 6	Study for Exam Two
Th, Mar 10	**Exam Two (Topics 8-14)**	Exam Two	RR: Ch 14
T, Mar 22	15: Species Interactions	Discussion of Ch 14	Reading 7: TBA
Th, Mar 24	16: Malaria	Discussion of Reading 7	RR: Ch 18
T, Mar 29	17: Community Structure	Discussion of Ch 18	Homework 3: Trophic Cascades (due 3/31 in lecture)
Th, Mar 31	18: Trophic Cascades	Discussion of Homework 3	RR: Ch 19
T, Apr 5	19: Ecological Succession	Discussion of Ch 19	Reading 8: TBA
Th, Apr 7	20: Fire	Guest Speaker	Study for Exam Three
T, Apr 12	**Exam Three (Topics 15-20)**	Exam Three	RR: Ch 20

Th, Apr 14	21: Biodiversity	Discussion of Ch 20	Reading 9: TBA
T, Apr 19	22: Hotspots	Discussion of Reading 9	RR: Ch 24
Th, Apr 21	23: Pathway of Elements	Discussion of Ch 24	Reading 10: TBA
T, Apr 26	24: The Dead Zone	Discussion of Reading 10	RR: Ch 26
Th, Apr 28	25: Conservation	Discussion of Ch 26	Homework 4: Rescued From the Brink (due 5/3 in lecture)
T, May 3	26: Rescued from the Brink	Discussion of Homework 4	Study for Exam Four
Th, May 5	**Exam Four (Topics 21-26)**	Course evaluation and Exam Four	

Participation Rubric

Students will be randomly divided into groups of 3-4 individuals (15-20 groups total in lecture). *During lecture*, you will work with your group to complete handouts and activities, to discuss the assigned readings and homework, and to present information to the class. You will be graded as follows:

Attendance in lecture (apart from excused absences) = 10 points possible

Absent 0-1time = 10 points
Absent 2 times = 9
Absent 3 times = 8
Absent 4 times = 7
Absent 5 times = 6
Absent 6 or more times = 0

Lecture Group grade = 30 points possible

Each ***Lecture Group*** will receive a grade. All members of a Lecture Group will receive the same grade. This is an example of positive 'peer pressure'! During lecture, we will work with each ***group*** and make note of the ***group's engagement*** as well as the ***quality*** of your ***group's work***. Is the group on-task (i.e., talking about Yellowstone or American Idol)? Does the group produce well-developed answers to the handouts and activities? Lecture Groups should feel free to ask for feedback on their performance throughout the course of the semester. We will be happy to provide tips to improve your group's performance.

Each Lecture Group will be graded as follows:

27-30 = always well prepared (book/reading always present and completed), fully engaged, high quality work
24-26 = well-prepared (book/reading almost always present and completed), mostly engaged, above average work
21-24 = average preparedness (book/reading usually present and completed), somewhat engaged, average work
18-20 = not prepared (forget to bring and read book/reading), disengaged, below-average work