

FUNDAMENTALS OF ECOLOGY
Renewable Natural Resources 205
Spring 2009

OBJECTIVES

The primary objective of this course is to **survey the principles and concepts of ecology** for undergraduate students taking their first course in ecology. The course emphasizes the relevance of ecology to contemporary society by relating ecological principles to high profile issues including, biodiversity, sustainable resource use, human population growth, and global change. As a result of taking this course, **students should appreciate and understand:**

- The importance of science and ecology to contemporary society,
- Vital ecological services provided by various ecosystems,
- The effects of organism-environment interactions and how they shape organism adaptation and distribution,
- Population growth patterns in contrasting environments, and
- Patterns and characteristics of major ecosystems of Texas and North America.

INSTRUCTORS

Dr. David D. Briske
Ecosystem Science & Management Dept.
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Animal Industries Building
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Dr. Kirk O. Winemiller
Wildlife & Fisheries Sciences Dept.
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Old Heep Building
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Dr. Briske will teach the first two units of the course and Dr. Winemiller will teach the last two units. Each instructor will teach their respective units in both sections (501 and 502) of the course. **This enables students to attend lectures in either section, but exams must be taken in the section for which you have registered.**

TEXTBOOK

Molles, Manuel C. 2007. Ecology: Concepts and Applications. McGraw-Hill, New York. Fourth edition (paperback). (The third edition can be used). The text is supported by a web-based learning center (www.mhhe.com/molles4e) designed to support student inquiry.

EXAMINATIONS

There will be **three one-hour exams** during the semester and a **final exam** at the end of the term. **Each examination will consist of 50 multiple choice questions worth 2 points each, for a total of 100 points. The final exam will not be comprehensive, but will consist of a 100 point exam of Unit IV. Eleven 10 point quizzes, consisting of 10 multiple choice questions each, will be taken on-line during the semester. Each quiz can be taken a second time in the same week that it is offered and the highest grade will be recorded. Grades will be assigned as a percentage of total points (500) acquired in the four exams and 10 highest quiz scores.**

A=90% (450-500 points)
B=80-89% (400-449 points)
C=70-79% (350-399 points)
D=60-69% (300-349 points)
F=0-59% (<299 points)

Exams will be scantron graded; **students must provide their own full page scantrons** (NCS mp90051 or 0-101607-TAMU). A **valid student identification card**, a scantron, and a **No. 2 lead pencil** with an eraser are required for all exams. Points will be deducted for students that do not fill in their scantrons properly. No personal electronic devices may be used during the exams.

MAKE-UP EXAMINATIONS

Make-up examinations will be given provided that students present a **documented University-excused absence within 1 week of the scheduled exam**. An excused absence means that illness or some other problem beyond your control prevented you from taking the scheduled exams. Make-up exams must be taken within 4 weeks of the scheduled exam. **Instructors are under no obligation** to provide an opportunity for students to make up course work missed because of unexcused absences (see TAMU Regulations below). **Make-up exams will include** a combination of short answer, fill-in-the-blank, and graph interpretation questions in addition to multiple choice. **No opportunity will be provided to make-up missed quizzes.** These policies will be strictly enforced.

ATTENDANCE

Most examination questions come from the lectures and experience shows that those **students who attend class consistently obtain the highest scores**. If you choose not to attend class, it is your responsibility to keep up with course materials, assignments, and examination dates.

Attendance (Revised 1999)*

The University views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments. Instructors are expected to give adequate notice of the dates on which major tests will be given and assignments will be due.

- 7.1 The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for absence.
- 7.5 If the student is seeking an excused absence, the student must notify the instructor as soon as possible after the absence, but no later than the end of the second working day after the last date of absence. If the absence occurs the same day as a scheduled exam or other graded procedure, the student must notify his/her instructor or department by the end of the next working day after the absence in order to ensure full rights. The student is responsible for providing satisfactory evidence to the instructor within one week of his or her absence to substantiate the reason for absence. If the absence was excused, the instructor must either provide the student an opportunity to make up the exam or other work missed or provide a satisfactory alternative to be completed within 30 calendar days from the last date of absence.
- 7.6 The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence.

(*from: Texas A&M University, Student Rules, 2002-2003)

RENR 205 on WebCT-Vista

RENR 205 on WebCT-Vista (<http://elearning.tamu.edu/>) will contain the **syllabus, lecture note outlines**, and an electronic forum for the first half of the course and **on-line quizzes and grade information for the entire course**. A 'myWebCT' page will be set up automatically for each student and this page will contain a link to the RENR 205 WebCT-Vista page. The user name and password for your 'myWebCT' page are the same as those for your NEO account. **Lecture note outlines are designed to facilitate note taking during lecture and do NOT provide a complete study guide.** Be sure to bring the appropriate lecture notes to each class period.

SUPPLEMENTAL INSTRUCTION

Student learning may be enhanced by Supplemental Instruction associated with the Center for Academic Enhancement, if a student instructor is available. Scheduling details will be provided in class and on WebCT-Vista.

LEARNING ENVIRONMENT

Please contribute to a positive and constructive learning environment throughout the semester by:

- Attending class on time
- Minimizing talking and other noise
- Turning off all electronic devices
- Limiting distracting activities
- Sitting near the front of the class

AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that **all students with disabilities be guaranteed a learning environment** that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 in Cain Hall (845-1637).

ACADEMIC INTEGRITY STATEMENT

“An Aggie does not lie, cheat, or steal or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/.

Our policy is to assign a grade of zero for any exam on which a student is cheating, which will very likely result in course failure. Responsible individuals will also be reported for honor code violations.

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Lecture Outline and Exam Dates
Spring 2009

Book Chapter

Lecture Topic

Unit I: Instructor-Briske

Chapter 1	Introduction: What is Ecology?
Chapter 2	Soils and Climate
Chapter 2	Life on Land
Chapter 3	Life in Water

*****EXAMINATION I (Friday, February 13)*****

Unit II: Instructor-Briske

Chapter 16	Species Abundance and Diversity
Chapter 22	Geographic Ecology
Chapter 18	Primary Production and Energy Flow
Chapter 19	Nutrient Cycling and Retention
Chapter 20	Succession and Stability

*****EXAMINATION II (Friday, March 6) *****

Unit III: Instructor-Winemiller

Chapter 4	Temperature Relations
Chapter 5	Water Relations
Chapter 6	Energy and Nutrient Relations
Chapter 9	Population Distribution and Abundance
Chapter 10	Population Dynamics

*****EXAMINATION III (Friday, April 10) *****

Book Chapter

Lecture Topic

Unit IV: Instructor-Winemiller

Chapter 11	Population Growth
Chapter 8	Population Genetics and Natural Selection
Chapter 12	Life Histories
Chapter 13	Competition
Chapter 14	Exploitation: Predation, Herbivory, Parasitism and Disease
Chapter 15	Mutualism
Chapter 23	Global Ecology

*******FINAL EXAMINATION*******

Section 501: Monday, May 11, 8-10 am

Section 502: Tuesday, May 12, 3:30-5:30 pm