

Environmental Systems – Biological Aspects
EVSE 5309 section 001 / BIOL 3310 section 003
Spring, 2008
Monday 6:00 – 8:50 PM
Life Sciences Building, Room 120

Instructor: Dr. James P. Grover, 468 Life Sciences, 817-272-2405 (with voicemail), grover@uta.edu

Office Hours: Mon. & Wed. 2-4 PM, Mon. 4-6 PM prior to lectures, or by appointment;

Required Text:

Jones, A.M. 1997. *Environmental Biology*. Routledge, London.

Freedman, B. 1995. *Environmental Ecology*, 2nd ed. Academic Press, N.Y.

These are out of print, but will be on reserve at the library. Course lecture notes will also be available as explained in class.

Course Description: An introduction to the biological components of environmental systems. Population dynamics, species interactions, community structure, biodiversity, bioenergetics, nutrient cycling and human impacts are reviewed. Focus will be on natural processes and their engineering applications.

Student Learning Outcomes:

BIOL 3310 -- Students will be able to describe and explain ecological concepts and apply them to environmental issues. Students will be able to analyze and synthesize primary scientific literature in environmental biology.

EVSE 5309 -- Students will be able to describe and explain ecological concepts and apply them to environmental issues. Students will be able to analyze and synthesize primary scientific literature in environmental biology. Students will be able to criticize current understanding in environmental biology and propose future research.

These outcomes will be assessed using embedded questions in course exams and through an analysis of research papers written by students.

Course Prerequisites and Requirements: Admission to the EES graduate program or permission of the instructor is required. In order to access electronic course materials you will need to provide a current e-mail address that you plan to check regularly. You will need to bring a “blue book” for each exam.

Exams and Assignments:

There will be two midterm exams. Both will be closed-book essay exams. Content, coverage and format of the exams will be announced in class. You will need to bring a “blue book” for each exam.

Each student shall write a research paper on an environmental problem with significant biological content. Paper topics must be approved by the instructor. Papers must be at least 10 pages of typed, double-spaced text, excluding references and illustrations. Papers must also have a one-page Executive Summary written in non-technical language suitable for a general reader. Graduate students must also prepare an oral presentation of 15-20 minutes on the topic of their research paper.

To facilitate writing of the research papers, each student will be assigned to a Writing Circle. Writing Circles are small groups of people who interact together to support each others’ writing by reading, reviewing, discussing and editing each others’ work in progress. During the semester, all or part of several class sessions will be devoted to the activities of the Writing Circles. Milestones in the writing process -- such as preparation of a preliminary reference list, outline, and rough draft – will have deadlines in order to keep the class on schedule. Students will be expected to meet these deadlines, attend class regularly, and participate actively in their Writing Circle.

Grading Policy:

For graduate students enrolled in EVSE 5309:

Exams	30%
Writing Circle milestones and participation	30%
Research paper and executive summary	30%
Oral presentation	10%

For undergraduate students enrolled in BIOL 3310:

Exams	33%
Writing Circle milestones and participation	33%
Research paper and executive summary	33%

Make-up Exams: There will be no make-up exams unless an unanticipated and severe problem prevents attendance on the scheduled date, or unless the student is representing the University in an officially recognized activity for which University policy allows an excusable absence (e.g. intercollegiate athletics). Written documentation of circumstances will be required for make-up exams. Make-up exams will be given only at times scheduled by the Biology Department for this purpose.

Attendance and Drop Policy: Students are expected to attend all classes. Attendance will be taken in each class. Students not attending classes are unlikely to pass the course. In order to encourage students to attend, students having up to one unexcused absence will have five additional points added to their final raw score grade. Beyond one unexcused absence, this 5-point attendance bonus will be reduced by 2 points for each further unexcused absence from lecture. All university policies governing course withdrawal will be applied. Withdrawal will be permitted for students making progress in the course who encounter unexpected difficulties. Students should be aware of University regulations regarding withdrawal and deadline dates.

Incomplete grades: A grade of incomplete will only be assigned for students who are physically unable to complete the course due to serious illness or injury.

Other issues: Please be considerate of other students and arrive on time. Turn off cell phones and pagers.

Schedule of Lecture Topics

Assigned Readings (EB = *Environmental Biology*):

Date	Topic	Reading
	The basic organization of living forms – Self Study	Ch. 1 EB
Jan. 14	Introduction and the Biosphere	Ch. 2 EB
Jan. 21	Martin Luther King Day – No Class	
Jan. 28	Basic Ecological Concepts and Processes	Ch. 3 EB
Feb. 4	Conditions and Resources: Major Determinants of Ecology	Ch. 4 EB
Feb. 11	First Midterm Exam (1½ hr); Research Paper Guidelines	
Feb. 18	Individuals; Paper Topics Due ; Assignment of Writing Circles	Ch. 5 EB
Feb. 25	Populations (1½ hr); Preliminary Literature List Due ; Discussions in Writing Circles	Ch. 6 EB
Mar. 3	Populations (1½ hr); Outline / Prospectus Due ; Discussions in Writing Circles	Ch. 6 EB
Mar. 10	Communities and Ecosystems (1½ hr); Updated Literature List Due ; Discussions in Writing Circles	Ch. 7 EB
Mar. 17	Spring Break – No Class	
Mar. 24	Communities and Ecosystems (1½ hr); Rough Draft Due ; Discussions in Writing Circles	Ch. 7 EB
Mar. 31	Reviews of Rough Drafts Due ; Discussions in Writing Circles	
Apr. 7	Second Midterm Exam (1½ hr); Discussions in Writing Circles	
Apr. 14	Draft Executive Summaries Due ; Discussions in Writing Circles	
Apr. 21	Revised Drafts Due ; Discussions in Writing Circles	
Apr. 28	Student Presentations	

There is no Final Examination
The Final Version of the Research Paper, including Executive Summary
is due Tuesday, May 6, at 5:00 PM

Important University Policies:

Americans With Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available: The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Final Review Week: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

Drop for non-payment of tuition: Payment must be received by the term due date of January 9, 2008 or your registration will be cancelled. If your registration is cancelled for non-payment, you may reregister for classes but only if seats are available.

Bomb Threats: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

E-mail: The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular,

important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

After Hours Safety Escort: The Sam Mav Escort service provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. 817-272-3381

MavMail: All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.