

**EVSE 5309 section 001 / BIOL 3356 section 001**  
***Environmental Systems – Biological Aspects***

Spring 2012

**Instructor(s):** James P. Grover

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**Office Hours:** Monday 3-5 PM, Tuesday and Thursday 2-3 PM

**Section Information:** EVSE 5309 section 001 / BIOL 3356 section 001

**Time and Place of Class Meetings:** Life Science Bldg., room 101, Mondays 6:00 – 8:50 PM

**Description of Course Content:** 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 3356 -- 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.

**Requirements:** Admission to the EES graduate program or permission of the instructor is required for EVSE 5309. Prerequisite courses for EVSE 3356 are BIOL 1441, 1442 and 2343 or equivalent. 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.

**Required Textbooks and Other Course Materials:**

Mackenzie, A., A.S. Ball, and S.R. Virdee. 2001. *Instant Notes in Ecology*, 2<sup>nd</sup> ed. BIOS Scientific Publishers, Inc., Oxford, UK, ISBN 1 85996 257 2

**Descriptions of major assignments and examinations with due dates:**

There will be a midterm exam and a final exam. Both will be closed-book essay exams. You will need to bring a “blue book” for each exam. Each exam will consist of 6 essay questions, 4 of which must be chosen to answer.

Each student shall write a research paper on an environmental problem with significant biological content. Paper topics must be approved by the instructor. For BIOL 3356, papers must be at least 10 pages of typed, double-spaced text, excluding references and illustrations. For BIOL 5309, papers must be at least 12 pages. Printed papers must be turned in by the deadline; electronic submissions will not be accepted. Papers must also have a one-page Executive Summary written in non-technical language suitable for a general reader. Graduate students taking EVSE 5309 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. Full credit for class participation requires attending all writing circle meetings to have face to face interactions with members and with the course instructor. Scoring of participation will not penalize a single absence heavily, but will penalize multiple absences. As a further resource on writing your papers, a book entitled “Writing Papers in the Biological Sciences” is on reserve at the Science and Engineering Library.

**The Final Version of the paper, with Executive Summary is due on the last day of class, April 30, 2012.** Late papers will be penalized. A penalty of 5% will be deducted for late papers submitted after the due date up until the time of the Final Exam. A penalty of 10% will be deducted for late papers submitted after the time of the Final Exam.

**Grading Policy:**

For graduate students enrolled in EVSE 5309:

Exams	40%
Writing Circle milestones and participation	20%
Research paper and executive summary	30%
Oral presentation	10%

For undergraduate students enrolled in BIOL 3356:

Exams	50%
Writing Circle milestones and participation	20%
Research paper and executive summary	30%

Each exam will consist of 6 essay questions, 4 of which must be chosen to answer. The grade for Writing Circles will be scored based on providing required materials by the due dates, quality of the materials prepared, and assessment of participation by instructor and peer assessment.

**Attendance Policy:** Students are expected to attend all classes and participate actively in all Writing Circle activities. Grading for Writing Circle milestones and participation will be influenced by attendance.

**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.

**Drop Policy:** Students will be dropped for non-payment of tuition if payment is not received in timely manner. Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. March 30 is the last day that a course may be dropped. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. Contact the Financial Aid Office for more information. All university and departmental policies governing course withdrawal will be applied. Students should be aware of relevant 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. Students facing difficulty completing the course should consult the instructor at the earliest opportunity and be prepared to document circumstances of hardship.

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

**Schedule of Lecture Topics**

Date	Topic
Jan. 23	Introduction and The Physical Environment
Jan. 30	The Physical Environment
Feb. 6	The Physical Environment; <b>Paper Topics Due</b>
Feb. 13	Populations; Assignment of Writing Circles; Instructions on papers and scientific literature
Feb. 20	Populations; <b>Preliminary Literature List Due</b> ; Discussions in Writing Circles
Feb. 27	Populations; <b>Outline / Prospectus Due</b> ; Discussions in Writing Circles
Mar. 5	Populations; Ecosystems & Communities
Mar. 19	<b>First Midterm Exam</b> (1½ hr); Ecosystems & Communities
Mar. 26	Ecosystems & Communities; <b>Rough Draft Due</b> ; Discussions in Writing Circles
Apr. 2	Applications; <b>Reviews of Rough Drafts Due</b> ; Discussions in Writing Circles
Apr. 9	Applications; <b>Draft Executive Summaries Due</b> ; Discussions in Writing Circles
Apr. 16	Applications; <b>Revised Drafts Due</b> ; Discussions in Writing Circles
Apr. 23	Applications; Discussions in Writing Circles
Apr. 30	<b>Final Version of Paper and Executive Summary Due</b> ; Student Presentations

**Final Examination**  
**Monday, May 7, 8:15 PM to 10:45 PM**

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities 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. According to the UT System Regents' Rule 50101, §2.2, "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."

**Student Support Services Available:** The University of Texas at Arlington has established a variety of programs to help students meet the challenges of college life. Support to students includes advising, counseling, mentoring, tutoring, supplemental instruction, and writing assistance. For a complete list of academic support services, visit the Academic Assistance resource page of the Office of Student Success Programs, [www.uta.edu/uac/studentsuccess/academic-assistance](http://www.uta.edu/uac/studentsuccess/academic-assistance). To help students address personal, academic and career concerns, individual counseling is also available. For more information, students are encouraged to contact Counseling Services [www.counseling.uta.edu](http://www.counseling.uta.edu) at (817) 272-3671 or visit a counselor in 216 Davis Hall.

**Electronic Communication Policy:** The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. ***Students are responsible for checking their MavMail regularly.*** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.

**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 syllabus. 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.

**Grade Grievance Policy:** Grade grievance procedures for BIOL 3356 will follow those in the Undergraduate Catalog. Grade grievance procedures for EVSE 5309 will follow those in the Graduate Catalog.