

**BIOL 1442: Evolution and Ecology**  
Fall 2016

**Instructor(s):** Dr. Eric N. Smith

**Office Number:** Life Science Building, Room LS463 (Lab LS451/452)

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**Faculty Profile:** <https://www.uta.edu/profiles/eric-smith>

**Office Hours:** Monday 12:00-1:30 PM, Thursday 2:30-4:00 PM

(If these are not convenient please contact me to make an appointment at a time convenience)

**Section Information:** BIOL 1442 sec 004

**Time and Place of Class Meetings:** Monday, Wednesday, and Friday 1:00-1:50 pm; Room LS 122 (Life Science).

**Description of Course Content:** Reviews significant aspects of organismal biology and presents current hypotheses concerning the origin and diversification of life on earth. The ecological and behavioral interactions between organisms and their biotic/abiotic environments are considered from an evolutionary perspective. The laboratory will examine evolution, ecology and the diversity of life using hands-on observational and experimental approaches.

**Student Learning Outcomes:** Student will develop a basic understanding of 1) the diversity of extant organisms; 2) the evolutionary mechanisms by which this diversity has arisen and is maintained; 3) ecological interactions within and among species, and between organisms and their environment; and 4) significance of the identity and role of Homo sapiens in the context of evolution, ecology, and biodiversity.

This course counts as part of the **Environmental and Sustainability Studies Minor**, open to students in all majors and colleges. For more information about ESS classes, requirements & advising:

[http://www.uta.edu/english/alaimo/For%20ESS%20Minors%20\(Environmental%20and%20Sustainability%20Studies\).html](http://www.uta.edu/english/alaimo/For%20ESS%20Minors%20(Environmental%20and%20Sustainability%20Studies).html)

**Requirement:** BIOL 1441 (prerequisite) or permission of the instructor.

**Required Textbooks and Other Course Materials:** Campbell Biology (10th ed.) (with or without MasteringBiology Access). **Optional:** Campbell Biology Study Guide (10th ed.). Mastering Biology Access is recommended. Book can be rented as e-textbook for different platforms or purchased or rented as hardcover or paperback.

**Descriptions of major assignments and examinations:**

**Course Schedule**

Chapter 22 Descent with Modification: A Darwinian View of Life

Chapter 23 The Evolution of Populations

Chapter 24 The Origin of Species

Chapter 25 The History of Life on Earth

Chapter 26 Phylogeny and the Tree of Life

Chapter 27 Bacteria and Archaea

**Exam #1 Chapters 22-27 Monday, October 3**

Chapter 28 Protists  
Chapter 29 Plant Diversity 1: How Plants Colonized Land  
Chapter 30 Plant Diversity 2: The Evolution of Seed Plants  
Chapter 31: Fungi  
Chapter 32: An Overview of Animal Diversity  
Chapter 33: An Introduction to Vertebrates  
Chapter 34: The Origin and Evolution of Vertebrates  
**Exam #2 Chapters 28-34 Monday, October 31**

Chapter 51: Animal Behavior  
Chapter 52: An Introduction to Ecology and the Biosphere  
Chapter 53: Population Ecology  
Chapter 54: Community Ecology  
Chapter 55: Ecosystems and Restoration Ecology  
Chapter 56: Conservation Biology and Global Change  
**Exam #3 Chapters 51-56 Friday, December 2**

**Review Week, Student Presentations (for Honors College credit), December 5 and 7.**

**Cumulative Final Exam (sec 004), Monday December 12, 11:00 a.m. to 1:30 p.m.**

*As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course.*

**Important dates:**

- |             |                          |
|-------------|--------------------------|
| • Aug 25    | First Day of Classes     |
| • Aug 25–31 | Late Registration        |
| • Sep 05    | Labor Day Holiday        |
| • Sep 12    | Census Date              |
| • Nov 02    | Last day to drop classes |
| • Nov 24–25 | Thanksgiving Holidays    |
| • Dec 07    | Last Day of Classes      |
| • Dec 10–16 | Final Exams              |
| • Dec 15–17 | Commencement Ceremonies  |

**Attendance:** At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. *As the instructor of this section, I allow students to attend class at their own discretion; however, students that attend on a regular basis tend to do better. My exams can include bonus points related to student questions or examples given in class, not necessarily in the book or PowerPoint presentations.* While UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

**Grading:** Your lecture grade is 67% (2/3) of your total grade. Your lab grade is 33% (1/3) of your total grade (see GTA for lab syllabus)

Semester Grade Calculation:  $\text{total} = [\text{lecture average} \times 0.67] + [\text{lab average} \times 0.33]$

Lecture Grade:

Exam 1 = 25% of lecture grade

Exam 2 = 25% of lecture grade

Exam 3 = 25% of lecture grade

*Cumulative* Final = 25% of lecture grade

Lecture exams will contain a combination of question styles (e.g., multiple choice, matching, true/false). A typical exam will contain about 50 questions. It will be your responsibility to bring a crisp and undamaged Scantron form 882 and a No. 2 pencil.

Semester letter grade: A = 89.5-100%, B = 79.5-89.4% C = 69.5-79.4%, D = 59.5-69.4%, F < 59.5%

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see "Student Support Services," below.

**Honors Credit:** Students enrolled for honors credit will have a chance to hone their public speaking skills. (Trust me – this will serve you very well in your future science career endeavors!) To fulfill your commitment, you will 1) sign up for a timeslot for your 15 minute presentation during the first two weeks of class, 2) submit a topic for approval at least three weeks prior to your chosen date, and 3) present a thorough but concise review of your subject material with visual aides (e.g., PowerPoint). You are also encouraged to submit an outline or draft of your talk for review at least one week in advance. Please see me individually for additional questions or for guidance choosing an ideal topic.

**Make-up Exam Policy:** There will be no make-up exams unless an unanticipated and severe problem prevents attendance on the scheduled date, or 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 is required for make-up exams, e.g., Doctor's notes, court orders, and police reports. Make-up exams will be given only at times scheduled by the Biology Department for this purpose, by appointment with a graduate student proctor and at the instructor's discretion. If you miss an exam without adequate advance notice, please talk to your instructor about the possibility of double-weighting the final exam. This arrangement is a last resort, made on a case-by-case basis, with documentation, and at the discretion of your instructor.

**Expectations for Out-of-Class Study:** Biology is not a difficult subject; however, the amount of information covered, including concepts, terminology, dates, and names, can be overwhelming. Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 6 hours per week of their own time in course-related activities (e.g., including reading required materials, completing assignments, preparing for exams, etc.). The key to succeed is to study every week at least six hours, preferably two hours of study after each lecture while the information is still fresh in your mind. Regrettably, many student wait until the night before the exam to study, which is certainly not enough to digest all the material.

**Grade Grievances:** Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog.

For undergraduate courses, see <http://catalog.uta.edu/academicregulations/grades/#undergraduatetext>.

For student complaints, see <http://www.uta.edu/deanofstudents/student-complaints/index.php>.

**Drop Policy:** 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. 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. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

**Disability Accommodations:** UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364. 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).

Counseling and Psychological Services, (CAPS) [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

**Non-Discrimination Policy:** *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos).*

**Title IX Policy:** The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX) or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or [jmhood@uta.edu](mailto:jmhood@uta.edu).*

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents’ Rule* 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>.

**Lab Safety Training:** Students registered for this course must complete all required lab safety training prior to entering the lab and undertaking any activities. Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., Fall through Summer II) and must be completed anew in subsequent years. There are no exceptions to this University policy. Failure to complete the required training will preclude participation in any lab activities, including those for which a grade is assigned.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

**Student Feedback Survey:** At the end of each term, students enrolled in face-to-face and online classes categorized as “lecture,” “seminar,” or “laboratory” are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback via the SFS database is aggregated with that of other students enrolled in the course. Students’ anonymity will be protected to the extent that the law allows. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** for semester-long courses, 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. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. Exits in the room are at the front, the nearest building exits to the north and west. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Students are encouraged to subscribe to the MavAlert system that will send information in case of an emergency to their cell phones or email accounts. Anyone can subscribe at <https://mavalert.uta.edu/> or <https://mavalert.uta.edu/register.php>

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

**The IDEAS Center** (2<sup>nd</sup> Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email [IDEAS@uta.edu](mailto:IDEAS@uta.edu) or call (817) 272-6593.

**The English Writing Center (411LIBR):** The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Our hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate students are also available. Please see [www.uta.edu/owl](http://www.uta.edu/owl) for detailed information on all our programs and services.

The Library's 2<sup>nd</sup> floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation. <http://library.uta.edu/academic-plaza>

**Library Home Page** [library.uta.edu](http://library.uta.edu)

#### **Resources for Students**

##### **Academic Help**

Academic Plaza Consultation Services [library.uta.edu/academic-plaza](http://library.uta.edu/academic-plaza)

Ask Us [ask.uta.edu/](http://ask.uta.edu/)

Library Tutorials [library.uta.edu/how-to](http://library.uta.edu/how-to)

Subject and Course Research Guides [libguides.uta.edu](http://libguides.uta.edu)

Subject Librarians [library.uta.edu/subject-librarians](http://library.uta.edu/subject-librarians)

##### **Resources**

A to Z List of Library Databases [libguides.uta.edu/az.php](http://libguides.uta.edu/az.php)

Course Reserves [pulse.uta.edu/vwebv/enterCourseReserve.do](http://pulse.uta.edu/vwebv/enterCourseReserve.do)

Study Room Reservations [openroom.uta.edu/](http://openroom.uta.edu/)

**Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381

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