BIOL 1442: Evolution and Ecology
Fall 2015

Time and Place of Class Meetings

- Labs will be held in LS 229
- Check MyMav for the exact time and day of your section

Important Dates

- First day of labs: August 31st
- Census date: September 14th. Drops/withdrawals after this must be completed by an academic advisor
- Last day to drop a class with a "W": November 4th
- Last day of labs: November 19th

Lab Coordinator: Rachel Wostl
Email: rlwostl@uta.edu
Office: LS236
Office hours: T/W 2-3p

Lab Instructors*

Instructor	e-mail
Ashley Asmus	alasmus@uta.edu
Diwash Jangam	diwashj@uta.edu
Danielle Rivera	danielle.rivera@mavs.uta.edu
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***Lab instructors will provide contact information and office hours independently of this syllabus.**

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. Prerequisite: BIOL1441.

Note: Modern Biology is an integrative discipline, incorporating elements of mathematics, chemistry, computer science, and writing. We expect that you have at least a basic understanding of each of these elements.

This course satisfies the University of Texas at Arlington core curriculum requirement in life and physical sciences. The italicized student learning outcomes required of core courses below will be assessed for each student in the laboratory portion of the course. The final lab report will be assessed to determine how a student has mastered critical thinking, communication, and empirical and quantitative skills. A teamwork assessment (peer evaluation) will be completed by each student in lab to determine how students work together in lab groups to achieve the student learning outcomes described below.

Student Learning Outcomes

- Understand crucial biological processes and structures that maintain life related to evolution, diversity, and ecology
- Gain a familiarity with biological concepts related to issues of health, social and environmental concerns by investigating case studies in lecture
- Learn the scientific process by designing and conducting experiments, collecting and analyzing data, and presenting results, in both written and oral formats
- *Critical Thinking Skills*: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
- *Communication Skills*: to include effective development, interpretation and expression of ideas through written, oral and visual communication
- *Empirical and Quantitative Skills***:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- *Teamwork***:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Required Textbook and Other Course Materials

TEXTBOOK

Biology 1442 Evolution and Ecology Laboratory Manual

This manual is available for purchase ONLY THROUGH A REPRESENTATIVE OF PHI SIGMA (Locations and times TBA). This manual cannot be purchased through the bookstore or online.

MATERIALS

Laptops [***recommended***]. Students will benefit from having a laptop with Microsoft Excel and internet access for labs that require data analysis.

36" x 48" poster. Your group will be required to pay to print a scientific poster for your poster presentation.

SUPPLEMENTARY COURSE MATERIALS

Additional materials can be accessed through blackboard. It is your responsibility to check Blackboard regularly for materials. Your instructor will use Blackboard to communicate information related to the course. You are required to use Blackboard for this course.

Expectations

Attend every lab and participate in experiments and exercises. Show up prepared by reading the upcoming laboratory exercise, completing the prelab where applicable, and reviewing the previous lab. Turn in all assignments on time in the required manner and format. Failure to do so will result in a reduced course grade.

1. Be respectful your lab instructor, undergraduate TAs, and peers at all times. Behavior that is rude, aggressive, or inappropriate will be reported immediately to the Laboratory Coordinator and may be referred to the associate chair of Biology. Your instructor reserves the right to ask you to leave class and such behavior may affect your grade.
2. Turn off and put away all electronic devices during class. Cell phones will NOT be permitted in class at any time. Your instructor reserves the right to dismiss you from class for having a cell phone out. Missed assignments/quizzes cannot be made up.
3. Be attentive to the information and instructions that your instructor provides.
4. Abide by all rules and regulations regarding safety conduct in the lab. Failure to do so will result in dismissal from lab for the day and may affect your grade.
5. Place all belongings such as bags, coats, and electronic devices in the coat area upon arrival to lab.
6. By enrolling as a student at UTA, you have agreed to abide by the University's Honor code. Ultimately, it is your responsibility to ensure that you abide by this promise and uphold the integrity of UTA. If you are unsure if your assignment contains plagiarism, it is your responsibility to meet with your instructor to get help prior to submitting the assignment.
7. Your education is your responsibility. The best way to get the grades that you desire and to achieve success in the course is to work hard, study, and dedicate time to learning the material and developing strong scientific writing skills.

Grading Policy

1442 is a four-credit class that includes a lecture and a laboratory. For grading purposes, the lecture comprises 2/3 of your grade while other 1/3 is your lab grade. Therefore, you can multiply your final lecture grade by 0.66 and your lab grade by 0.33 and add them together to get your complete course grade.

- You are not permitted to drop either the lecture OR laboratory. Drops and withdrawals will be applied to both.
- Group work does not mean that one person does the assignment and everyone gets the grade. If your instructor feels confident that you did not participate in a group assignment, you will receive a reduced grade or a grade of 0.
- Evidence of collusion on individual assignments will result in a grade of 0 for both parties.
- Students have ***one week*** from the time a grade is posted on Blackboard to dispute the grade. Grades cannot be contested after this deadline has passed.
- Course policy prohibits extra credit in any form.

Your laboratory grade will be determined as follows:

25% Final Exam
25% Lab Report *To be completed individually*
15% Individual Assignments (results, discussion)
15% Group Assignments (proposals, results, paraph)
10% Assessments (quizzes, prelabs, participation)
10% Group Poster

See the schedule dates. Your Instructor will provide section specific due dates.

Assignments	Number
Quizzes	4
Prelabs	3
Participation days	3
Group Assignments	4
Individual Assignments	3
Lab Report	1
Group Poster	1
Final Exam	1

Attendance Policy

At The University of Texas at Arlington, taking attendance is not required. Rather, 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. In regards to the BIOL 1442 lab in which you are enrolled:

1. Attendance is mandatory. You will be required to sign in at the beginning of class.
2. You MUST attend the section that you are enrolled in. You will not be given credit for work completed in a section you did not receive approval to attend.
3. Students who are more than 10 minutes late to class will be considered absent.
4. *There will be no make-up labs or assignments to take the place of missed lab exercises*. You must be present to conduct the experiment and gather data. If you have an unexcused absence on the day that an assignment is completed in class, you will receive a grade of 0. Results assignments, the lab report and presentation can be completed with an **unexcused** absence for the day the experiment is conducted, but will receive a 10% grade reduction. For example, if you are absent for the second week of Reflexes and Reactions, your lab report grade will be reduced by 10%. If you miss a lab with an associated group results assignment, you must complete it individually; you cannot put your name on your group's submission.
5. If you must miss a lab, contact your instructor **prior to** the absence. You will be permitted to attend a different lab section ONE time per semester/session with a legitimate, **documented** excuse (such as a medical excuse in the form of a physician's note, death in the immediate family, illness of a family member for which you are the primary care provider). **No absence will be considered excused without appropriate documentation regardless of cause.** Conflicts with work will not be considered excused. Absences due to a planned trip will not be excused. Extreme circumstances will be considered on a case-by-case basis and will be subject to review by the Lab Coordinator.
6. If you are **unable** to contact your instructor prior to missing class (due to sickness, accident, etc.), you must notify him/her of the cause of the absence within 24 hours of the missed lab. Absences brought to the attention of the instructor after this time will not be considered excused regardless of reason or documentation.
7. Should you receive permission to attend a different lab section, all assignments are still due by the original date/time stated by your instructor/listed in the manual. For example, if your section meets on Tuesday at 9am, and you are given permission to attend a section meeting on Thursday at 11, an assignment due the following week is still due Tuesday at 9am *unless otherwise indicated by your instructor or the Lab Coordinator, as determined on a case-by-case basis*.
8. If you missed a lab with an **excused** absence and are unable to attend a different lab that week, make-up assignments are due by the original due date or the date established by your instructor or Lab Coordinator. Contact your instructor about missed assessments and instructions on turning in assignments. Group work from exercises missed with an excused absence must be made up individually. There is no make-up for missed participation points regardless of excuse.
9. A make-up quiz must be taken, and a missed prelab turned in, within 1 week of the excused absence. It is your responsibility to contact your instructor to see if a quiz was administered or a prelab was collected in your section.
10. Documentation of an excused absence MUST be provided to your instructor by the following week's lab. If you do not provide documentation, you will not be given credit for any make-up work and absence related grade penalties will be applied to assignments.
11. If you do not receive approval from your instructor or the Lab Coordinator to miss a lab, you will not be given the opportunity to turn-in prelabs, proposals, in class assignments, or make-up quizzes and will receive a grade reduction on other lab-associated assignments (see #6).

Assignment Submission Policies

1. You must follow submission guidelines in order to receive full credit.
2. Late assignments will be accepted up to 3 days (72 hours) past the due date/time. A grade reduction of 10% will be applied for each day that an assignment is late. Assignments will not be accepted once the 3 day grace period has expired. There is no grace period for prelabs, group proposals, assignments due in class, or for your presentation.
3. Assignments submitted after the grace period, or those incorrectly submitted, will not be accepted and will receive a grade of 0.
4. Assignments must be submitted to Blackboard as a Microsoft Word document (.doc or .docx). If your instructor cannot open your file due to it not being a Microsoft Word document it will not be graded and you will receive a 0.
5. Do not submit a PDF to Blackboard, it will not be graded and you will receive a 0.
6. It is your responsibility to submit all assignments correctly and on time. Except in the case of documented technical difficulties, **you will not be given extra time to submit electronic assignments in the case of computer-related issues**. Assignment submissions with documented technical difficulties must still be submitted before the end of the grace period. Don't wait until the last minute to submit assignments! Plan to submit all electronic assignments at least a day *before* they are due.
7. If you experience technical difficulty submitting an assignment to Blackboard, it is your responsibility to contact your lab instructor and provide verification of the difficulty and your completed assignment BEFORE the assignment is due. Your instructor will not make any allowances for technical difficulties if notification is provided after the deadline.
8. It is recommended that you take a screen shot of successful electronic submissions. Complaints of missing submitted assignments will not be considered without documentation. This requirement also applies to failed submission attempts due to technological difficulties. Documentation is required.
9. Do not turn in work that has been completed and submitted for a different class or assignment, you will be reported to student conduct.
10. Do not submit assignments via email. They will not be accepted.
11. Submissions through Blackboard are considered final. Requests to clear submission attempts will not be considered, except in cases where technological difficulties can be proved.

Scientific Writing and Results Assignments

Scientific writing is a vital component of this laboratory course. You will spend considerable time learning about the process of scientific writing. The laboratory report alone is worth 25% of your grade. As such, you should plan to dedicate significant time to developing your writing skills over the course of the semester/session.

1. All assignments (lab reports, conclusions/results follow up assignments) must be submitted through Safe Assign. An assignment that is not submitted through Safe Assign will not be accepted and will receive a grade of zero.
2. You must follow submission instructions to receive credit for your assignment.
3. Plagiarized papers and assignments will receive a reduced grade or a grade of 0, and will be reported to the Office of Student Conduct.
4. Individual Assignments MUST be completed individually. Evidence of collaboration with other students will be treated as cheating.

Quizzes

Quizzes will be given at the start of lab. Material covered will include information for the current lab through its prelab, as well as all material covered in previous labs (prelabs, protocols, follow-up questions). Question format will be short answer, fill-ins, and definitions. You should plan to spend time studying for these quizzes. Quizzes will be given at the start of lab. If you arrive late (i.e., after the quiz has been handed out), you will not be allowed to take the quiz. Make-up quizzes will not be given in the case of unexcused absence or tardiness.

Prelabs and Follow-up Questions

Prelab assignments and the Follow-up Questions that appear in the laboratory exercises are meant to help you learn the material. It is very important that you complete these assignments. Prelabs are to be completed individually **prior** to lab. If collected, it will always be at the start of class. Late prelabs will not be accepted. A prelab is considered late after it has been collected by the instructor.

Academic Integrity

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable 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.

CHEATING IN ANY FORM WILL NOT BE TOLERATED. IF YOU ARE CAUGHT, YOU WILL NOT RECEIVE CREDIT FOR THAT ASSIGNMENT AND MAY BE DISMISSED FROM LAB. ALL CASES OF PLAGIARISM WILL BE REFERRED TO THE OFFICE OF STUDENT CONDUCT WITHOUT EXCEPTION.

E-mail Communication Policy

Your instructor will make every effort to respond to your inquiry within a reasonable time, no longer than 24 hours. Do not email your lab instructor at the last minute expecting help with an assignment. Plan ahead!

Before sending an email, ask yourself the following questions:

1. *Is this email professional, polite, and detailed?* If you would not speak those words to the President of the University, do not send them in an email to your instructor. Rude or aggressive emails will be reported to the Laboratory Coordinator and possibly to the Associate Chair of the department. Threatening emails will be reported to campus police.
2. *Can I find this information in my syllabus or on Blackboard?* Check available resources BEFORE emailing your instructor. Lab instructors will not respond to emails regarding policies or dates that are set forth in the syllabus or on Blackboard.
3. *Was this information made available during a lab I missed?* If so, it is your responsibility to ask a classmate.
4. *Do I need to discuss my grades?* University policy prohibits discussion of grades over email. Make an appointment or see your instructor during office hours.
5. *Do I need help with an assignment?* Email is NOT intended to take the place of meeting with your instructor during office hours. If you need help with an assignment, attend office hours or make an appointment with your instructor.

Conflict Resolution
If you are experiencing an issue in lab, you should **first** arrange a meeting with your instructor. After you have met with your instructor and if the issue remains unresolved, you may then consult the Laboratory Coordinator. If the issue still requires attention, you may then consult the Associate Chair of the Department of Biology, Dr. Laura Mydlarz. None of the listed personnel will discuss the issue with you until you have first consulted all of those preceding him/her. The associate chair has final authority regarding any issue short of a filing a formal complaint with the University.

Drop Policy
Students may drop and 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. Contact the Financial Aid Office for more information.

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. In order to receive accommodation, students must present this letter to their lab instructor or the Laboratory Coordinator ***by the end of the second week of labs, and prior to any assignments, quizzes or activities that require accommodation.*** Students wishing to take a test in the Adaptive Resource Center must provide their instructor with the required paperwork at least one week prior to the test date. Requests made a few in advance cannot be accommodated.

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 or by calling the Office for Students with Disabilities at (817) 272-3364.

Title IX
The University of Texas at Arlington is committed to upholding U.S. Federal Law “Title IX” such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

Student Support Services Available
The University of Texas at 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. These resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals to resources for any reason, students may contact the Maverick Resource Hotline at 817-272-6107 or visit www.uta.edu/resources for more information.

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.

Student Feedback Survey
At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be 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 enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit http://www.uta.edu/sfs.

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. 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, which can be found by exiting the classroom (LS 229) and exiting the building via the stairs. 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.

Lab Safety Information

The following safety rules will be enforced at all times.

1. There is absolutely no food, drink, gum, cosmetics permitted in the lab at any time.
2. All personal materials, other than your lab manual and a pen/pencil (or other materials required for that day's lab) must be stowed in the designated area. This includes all bags, coats, electronic devices, and other personal belongings.
3. Electronic devices are prohibited during lab and must be turned off and stowed with your belongings. Using electronic devices during lab may result in your dismissal from lab that day and will affect your grade. If you have an extenuating circumstance during lab (e.g., sick child) notify your instructor prior to the start of lab that you need to have your phone.

Mandatory University Online 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., through the following August) 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.

Completion of the Laboratory Safety Training is required BEFORE you begin your coursework. Training must be completed one business day before your scheduled lab meeting to ensure that the instructor has up-to-date completion records.

Lab Safety Training Course Instructions

1. Use Mozilla Firefox 3.0 as your web browser: https://www.mozilla.org/en-US/firefox/new/
2. Login to Blackboard at https://elearn.uta.edu with your NetID and password
3. Under My Blackboard tab, click Lab Safety Training

   Note: Tab will be present if training is required
4. Click Welcome from the left pane to start and follow the instructions

You MUST complete this training. **Students who have not completed the training by the third week of lab will be unable to attend lab and may be dropped from the lab (and consequently the lecture)**.

General questions about the Lab Safety Training, including content should be directed to the Office of Environmental Health and Safety at (817) 272-2185 or ehsafety@uta.edu

BIOL 1442 Fall 2015 - Lab Schedule

Week	Start Date (week of)	Activity	Assignment(s) Due*
1	31-Aug	Lab 1: Population dynamics – Part 1	
2	7-Sep	*Labor Day! No Labs this week.*	
3	14-Sep	Lab 2: Community ecology – Part 1	Group Proposal 1
4	21-Sep	Lab 3: Community ecology – Part 2: data collection and analysis Scientific writing review/Paraphrasing activity	Group Proposal 2 Paraphrasing
5	28-Sep	Lab 4: Population genetics – the Hardy Weinberg Principle	
6	5-Oct	Lab 5: Natural selection and adaptation (Animal behavior)	Lab Report
7	12-Oct	Lab 6: Studying evolution through morphology	Animal Behavior Results
8	19-Oct	Lab 7: Molecular evidence of evolution	Morphology Results
9	26-Oct	Lab 8: Human population demographics and impacts	Group Molecular Evolution Results
10	2-Nov	Lab 9: Population dynamics – Part 2 Poster workshop	Human Population Essay
11	9-Nov	Group poster Team critique	Poster
12	16-Nov	Final exams	

*Your instructor will provide section specific due dates.