

BIOL 1334

Introduction to Biology II – Evolution and Ecology

Spring 2015

Instructor: Professor Laura D. Mydlarz

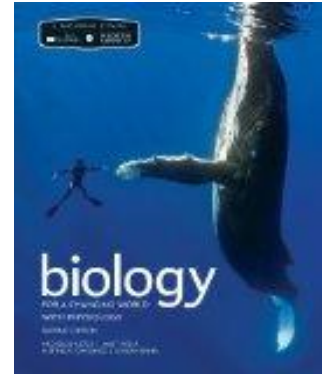
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Dr. Mydlarz Office Hours: Monday 1-3pm, Wednesday 3:50-4:50pm in LS 235



Section Information: BIOL 1334

Time and Place of Class Meetings: Monday and Wednesday, 3-3:50 pm. Life Science 124

Requirements: BIOL 1333 (prerequisite) or permission of the instructor.

Required Textbook: *Scientific American: Biology for a Changing World*, 2nd Ed., Shuster et al. 2014, W.H. Freeman (ISBN 1464126739)

Attendance: Attendance is mandatory for success in the lecture component of this course. The lab component will have its own attendance policy.

Description of Course Content

This course is for non-science majors and together with BIOL1333, will satisfy the laboratory science requirements for students in the Colleges of Liberal Arts and Business Administration and in the School of Social Work.

Emphasis is on fundamental principles, concepts, and topical subjects related to biology. We will use many current events in science to explain basic concepts related to evolution and ecology. Students will gain an appreciation for the sciences and be able to apply their knowledge to real world problems, such as antibiotic resistance and climate change. Biology is integrative, so many of the concepts will incorporate elements of math, chemistry, physics and computer science.

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 critical biological processes and functions 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.

Grading and Descriptions of major assignments and examinations:

Grading Policy: BIOL 1334 lab component counts for 1/3 of your total grade (see GTA for lab syllabus).

Semester grade = [lecture avg x 0.67] + [lab avg x 0.33]

Lecture grades will be awarded as follows:

25% - Exam 1

25% - Exam 2

10% - Participation

10% - Homework

30% - Final exam

Exams will have multiple choice questions and short answer/problem-solving questions.

Homework assignments will comprise of current event questions related to class topics that will be answered as homework and discussed in class.

Other Requirements: Exercise critical thinking skills, do your own research, be in charge of your own learning, keep up with the reading and attend class without exception.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials, going over the material, doing your own reading and research and doing homework, preparing for exams, etc...

Make-up Exams: There will be no make up exams or quizzes.

Important Dates:

Feb 3rd – Census date

April 3rd – Last day to drop and get a W.

Course Schedule.

“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.” – Laura Mydlarz

Week	Day	Date	Topic	Chapter
1	Mon	Jan. 19th	No class	
	Wed	Jan. 21st	Introduction to the course	
2	Mon	Jan. 26th	Review of heredity	14
	Wed	Jan. 28th	Natural selection and adaptation	14
3	Mon	Feb. 2nd	Natural selection and adaptation	14
	Wed	Feb. 4th	Speciation	15
4	Mon	Feb. 9th	Speciation	15
	Wed	Feb. 11th	Evidence for evolution	16
5	Mon	Feb. 16th	Evidence for evolution	16
	Wed	Feb. 18th	Life on earth	17
6	Mon	Feb. 23rd	Exam 1 (Chapter 14-17)	
	Wed	Feb. 25th	Diversity	18
7	Mon	March 2nd	Diversity	19
	Wed	March 4th	In class excersise	
8	Mon	March 9th	No class	
	Wed	March 11th	No class	
9	Mon	March 16th	No class	
	Wed	March 18th	Human evolution	20
10	Mon	March 23rd	Human evolution	20
	Wed	March 25th	Population ecology	21
11	Mon	March 30th	Population ecology	21
	Wed	April 1st	Exam 2 (Chapter 18-21)	
12	Mon	April 6th	Community ecology	22
	Wed	April 8th	Community ecology	22
13	Mon	April 13th	Community ecology	
	Wed	April 15th	Ecosystem ecology	23
14	Mon	April 20th	Ecosystem ecology	23
	Wed	April 22nd	Ecosystem ecology - other topics	
15	Mon	April 27th	In class excersise	
	Wed	April 29th	Sustainability	24
16	Mon	May 4th	Sustainability	24
	Wed	May 6th	Sustainability	24
FINAL	W	May 13th	Final	

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/>).

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 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.

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 as they see fit in their courses, including (but not limited to) 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.

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, or view the information at www.uta.edu/resources.

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>.

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. 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 handicapped individuals.