West Texas A&M University
Canyon, Texas
Department of Life, Earth and Environmental Sciences
Course Syllabus

Course: Honors Biology 1407-45
Semester: Spring 2013

Instructor: Dr. J Rogers
Office: ANS 321A
Office Hours: Monday 4:30 PM – 5:30 PM
Wednesday 4:30 PM – 5:30 PM
and by appointment.
Office Phone: 651-2581
Email Address: Use WTclass course mail
Depart. Secretary: Debi Adams **Phone:** 651-2570

Course Description

During the semester, you will continue to study the world of biology. This class will continue to provide you with a basic background of the principles of biology that you started in Biology 1406. We will examine biology at both the microscopic and macroscopic level as we study genetics, reproduction, plants, evolution and ecology. As with Biology 1406, Biology 1407 is a four credit hour course. To get credit you must also sign up and attend a section of Biology 1407 Lab. Your work in lab will contribute 25% of your final grade in this course.

Honors Enrichment

The Honors class will be integrated into the regular Biology 1407 class but Honors students will be provided additional opportunities for field studies, access to innovative risk modeling tools, a visit to a state-of-the-art environmental laboratory and a field sampling and analysis project. Honors students will meet every two weeks outside of the normal class period at a time agree to by the class, to discuss current events with biological implications during the previous two week period. This time will also be used to schedule field trips and to discuss the field study. I will adjust the proposed schedule of events based on your input and interests. I will also assign outside readings and videos.

Course Objectives

Develop a clear understanding of biological principles and demonstrate how science can be used to help solve questions; thus, allowing students to evaluate information instead of accepting information they hear or read.

Learning Objectives/Outcomes

- Demonstrate knowledge of evolutionary synthesis, natural selection, Mendelian inheritance, micro and macroevolution, speciation and meiosis
- Identify the major phyla of life with an emphasis on plant and animals, including the basis for classification and phylogenetic relationships, structural and physiological adaptations, evolutionary history, and ecological significance.
- Compare different sexual and asexual life cycles noting their adaptive advantages.
- Understand biodiversity and the factors that threaten biodiversity and conservation methods to maintain biodiversity.
- Explore community and ecosystem ecology.
- Examine plant and animal reproduction.

Learning Objectives/Outcomes Continued

- Develop an understanding of plant structure and general plant biology.
- Identify parts of a DNA molecule, and describe replication, transcription and translation.
- Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

Course Content and Method of Student Evaluation

Book: *Biology; Concepts and Connections* 7th Ed., Campbell

Book Chapters: This course will cover the following Chapters from Campbell, Concepts and Connections.

Chapters and Titles

31 Plant Form & Function (omit Reproduction)
32 Nutrition & Support
8 The Cellular Basis of Reproduction & Inheritance (Meiosis only)
31 Plant Reproduction (omitted from above)
27 Animal Reproduction (omit development)
9 Inheritance
13 How Populations Evolve
14 The Origin of Species
37 Communities & Ecosystems
38 Conservation Biology
34 The Biosphere: Intro to Earth's Diverse Environments

Additional material will be included as course content if time permits.

Schedule of Subject Matter by Lecture Day

Day: Lecture Content
1: Chapter 31 Plant Form & Function (omit Reproduction).
2: Chapter 31 Plant Form & Function (omit Reproduction).
3: Chapters 31/32 Plant Form & Function/ Nutrition & Support

4: Chapter 32/8 Nutrition & Support/The Cellular Basis of Reproduction & Inheritance (Meiosis only).
5: Chapter 8 The Cellular Basis of Reproduction & Inheritance (Meiosis only)
6: Chapter 31 Plant Reproduction (omitted from above)
7: Chapter 31 Plant Reproduction (omitted from above)
8: Exam 1
9: Chapter 27 Animal Reproduction (omit development).
10: Chapter 27 Animal Reproduction (omit development).
11: Chapter 9 Inheritance
12: Chapter 9 Inheritance
13: Chapter 9 Inheritance.
14: Chapter 13 How Populations Evolve.
15: Chapter 13 How Populations Evolve.
16: Exam 2
17: Chapter 13/14 How Populations Evolve/ The Origin of Species
18: Chapter 14 The Origin of Species
19: Chapter 37 Communities & Ecosystems.
20: Chapter 37 Communities & Ecosystems.
21: Chapter 37 Communities & Ecosystems.
22: Chapter 38 Conservation Biology.
23: Exam 3
24: Chapter 38 Conservation Biology
25: Chapter 38 Conservation Biology
26: Chapter 34 Intro to Earth's Diverse Environments.
27: Chapter 34 Intro to Earth's Diverse Environments.
28: Chapter 34 Intro to Earth's Diverse Environments.
29: Chapter 34 Intro to Earth's Diverse Environments.
30: Final Exam

Please Note that the above schedule is tentative, material may be added or excluded due to extended class discussions, lack of class discussion, weather etc. Semester exams dates are subject to change. Students will be notified of changes and given time to adjust.

Exams: Exams will consist of material covered during course instruction. Exams will be composed of Multiple Choice, matching, true/false and short answer questions. All question styles may **not** be represented on exams, the course instructor will announce exam format during class. **Please be on time to class, once an exam is submitted and the student submitting the exam leaves the testing area (room) exams will no longer be administered. Once an exam is in progress a student may not leave the room until he or she has completed their exam.**

Attendance: Attendance will improve student grades. Pop quizzes will be given periodically at the beginning, and at times the end, of class. I use pop tests as a measure of student attendance. (See pop test discussion) Students arriving late will Students absent from class are responsible for determining and acquiring assignments, course materials, announcements, handouts, etc. during their absence. The instructor will provide copies of course material only under certain circumstances (serious injury, surgery, etc.) and by **PRIOR** arrangement.

Pop-tests: Approximately 7-8 pop tests will be given throughout the semester. Pop tests cannot be made up, but I do allow for one drop. I will

take the best scores to derive an over-all pop test grade. Pop-tests will cover only that material covered since the last pop test. My pop test approach will be discussed during the first class.

Grading System: The grade for **lecture** will be determined by exams, quizzes, group work and attendance. However, not all methods of evaluation may be used. The course instructor will discuss the methods used to evaluate performance for the course. **Note: To determine the overall grade for the Biology 1407 course**, lecture portion will count as 75% and Lab as 25% of the grade. The lab will have a separate syllabus and will be covered during lab period.

Course Grade Calculation: Lecture major exams will count as 50%, pop test average 25% and lab as 25% of the overall course grade.

(LECTURE AVERAGE X 0.50) + (Pop Test average x .25) + (LAB AVERAGE X 0.25) = COURSE GRADE

Grade Scale:
A= 90-100%
B= 80-89%
C= 70-79%
D= 60-69%
F= <59%

Semester exams dates will be announced two weeks prior to the exam.

Course Instruction, Goals and Requirements

Course Instruction: Course content will be presented through a combination of styles. The use of illustrations, slides, chalk (white) board, videos, class discussion, group work and lecturing may be used to present the course material. Students will be responsible for reading course material and watching videos representing course material. Biology 1407 is a four credit hour course. **To get credit you must also sign up and attend a section of lab** as well as the lecture.

Exam Makeup Policy: Students will be allowed to makeup any of the class exams **only** if they miss an exam due to a school sponsored event (letter of absence from the organization is required) or illness (doctors note required). You must makeup the exam within **48 hours** and for school sponsored events students must give **24-hour** notification prior to missing the exam. **Other exceptions may apply, but must be approved by the course instructor.**

Dropping the class: If you decide to drop the class you should consult your advisor and, if you receive financial aid or scholarships, contact the financial aid office to determine the effect of dropping on your financial aid. **You must drop the class, I cannot drop the class for you!** If you drop the class before the last day to drop with a guaranteed X (see the University calendar for date) you will receive an X. If as student drops after this period, a grade of X or XF will be assigned. A grade of X if the student was passing the course (>60%) at the time dropped or if the student has made special arrangements with me PRIOR to the last day to drop with a guaranteed X. A grade of XF will be assigned if the

student is not passing (<60%) after this period. I reserve the right to assign a grade of XF despite any previous agreement if students fail to meet the requirements of the prior arrangement.

Last Day to Drop or Withdraw with Guaranteed X	**March 1**
Last day to Drop or Withdraw	**March 29**

Cell Phones/Other Electronic Devices: Cell phones must be turned off and placed in book bags, etc. so they are inaccessible during class. Use of electronic interpreters, books and dictionaries **will not** be allowed during exams.

Acceptable Student Behavior: Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (*Code of Student Life*). Unacceptable or disruptive behavior will not be tolerated. Students engaging in unacceptable behavior may be instructed to leave the classroom. Inappropriate behavior may result in disciplinary action or referral to the University's Behavioral Intervention Team. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. Please be considerate of your fellow students, disruptive behavior such as talking, using cell phones (texting), leaving class, passing notes, etc. **WILL NOT** be tolerated during lecture. If students engage in this behavior, they will be assigned a seat at the front of the classroom. If the disruptive behavior continues the student will be removed from the classroom and the Behavioral Intervention Team notified to the problem.

Weather: In the event of weather causing the cancellation of classes including exams, it is the student's responsibility to contact the instructor of the course or department secretary within 12 hours of the cancellation of the class to determine the action required to complete the course.

Students with Children:
For the benefit of your fellow classmates, children of students will not be allowed in the classroom.

Study Hints: Review your notes after each class. Make a list of questions about the topics you do not understand and submit the questions during class! Check the glossary at the end of each chapter and highlight the terms that were discussed. **Read the chapters to be cover in class ahead of time.** If you do not have the time to read each chapter before it is covered in class, at least review the chapter and familiarize yourself with what we will be discussing by reading the Summary of Key Concepts and captions under the illustrations in the chapter. **Budget your time,** study each day so you do not have to cover a mound of material the night before the exam. Try to study with someone else, quiz each other, discuss concepts and answer the study questions and discussion questions at the end of the chapter. This should increase your understanding of the topics covered in class or raise questions for you to ask in class.

ADA Statement: Students with Disabilities, WTAMU seeks to provide reasonable accommodations for all qualified persons with disabilities.

This university will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Student Disability Services (806-651-2335 <http://www.wtamu.edu/disability) and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

Copyright: Copyright 2012, William J. Rogers, this syllabus and all lectures; materials may not be reproduced without INSTRUCTOR NAME written consent. Students are prohibited from selling (or being paid for taking notes during this course to or by any person or commercial firm without the express written permission of the professor teaching this course.

Evacuation Statement: When you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicting all exits, outside assembly area, location of fire extinguisher, fire alarm pull stations, and emergency telephone numbers (651-5000 or 911). In the event an evacuation is necessary; evacuate immediately; do not use elevators; take all personal belongings, with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

Scholastic Dishonesty: It is the responsibility of students and instructors to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. Commission of any of the following acts shall constitute scholastic dishonesty. This listing is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the examination is given in subsequent sections of the course or as a makeup; plagiarism; submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so. (2011-2012 or Most Current, CODE OF STUDENT LIFE, Rules and Procedures for Students, West Texas A&M University).
A complete statement regarding scholastic dishonesty can be found in the Student Code of Life at
http://www.wtamu.edu./administrative/ss/code/code17.html

Safety Statement: Safety is everyone's responsibility. Material Safety data sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire and explosion data, and other important information associated with chemicals before handling or using a chemical, you should refer to the MSDS for the chemical. It is your responsibility to inform the instructor in writing o any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any sills or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe conditions, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask your instructor for proper instruction. All injuries,

spills of materials and unsafe conditions must be reported to the instructor immediately.

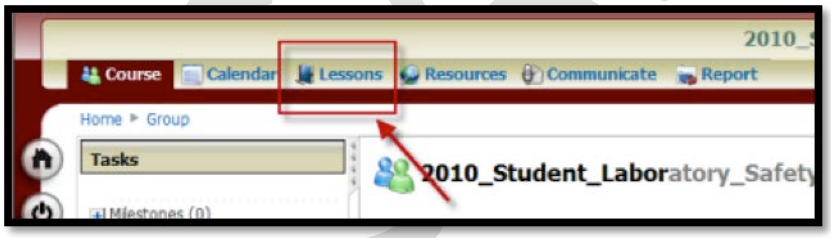
Lab Safety Training: All students enrolled in lab courses much complete online lab safety training. Training must be completed by the second week of the semester. Students will no longer be allowed to attend lab if the training is not complete and holds may be placed on student grades that do not complete the training. The following instructions describes how to complete the training.

> A passing score (100%) is required on the assessment portion of the course and is good for the academic year (August 2012 - July 2013)."
>
> Below are the instructions on how your students can access the training.

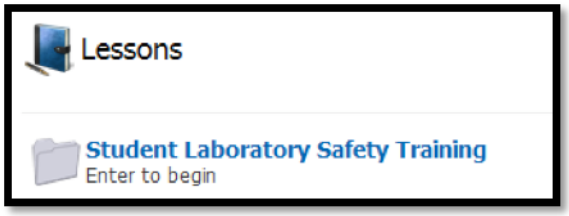
Student Laboratory Safety Training

Step 1: Locate the **Community Groups** nugget on your personal homepage. Click on the link for the **Student Laboratory Safety Training** Course to enter the course.

Step 2: Click on the **Lessons** tab to get to the course materials.



Step 3: Click on the folder labeled **Student Laboratory Safety Training** to begin the training.



Step 4: There are 2 steps to complete the training.

1. Select one of the presentations to view the training material. (All of the content in the presentations is the same. Select the presentation that is most compatible with your software on your computer.)

2. The exam will become visible after you have selected and read through the training presentation. Take the exam as many times as needed until you have received a score of 100.

Step 5: When you have reached a score of 100, you have completed the course. This score is good for one academic year.

If you experience problems, contact the ITSC help desk at 806-651-4357