



# Biology 3454 - 001 – General Zoology, Fall 2010

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MWF 11:00-12:00, LS 118

<http://www.natureboy.com>



**Prerequisites:** General Zoology is a major's course in the Biology Undergraduate Teaching Program. Cell and Molecular Biology (Biol. 1441) and Structure and Function of Organisms (Biol. 1442) or their transferred equivalents must have been taken by a student before enrolling for this course. All students who do not have the appropriate prerequisite courses should drop this course and take Biol. 1441 and/or 1442 as necessary or, if they are not Biology Majors, an appropriate non-majors Biology course such as Biol. 2311 (Man and Environment), Biol. 2317 (Human Sexuality), or Biol. 1301 (Nutrition) should be taken.

As the material presented in General Zoology will be basic to many upper division Biology Major's courses, instructors in those courses will assume that you have the foundation of zoological knowledge covered in this course.

## **Description of course content:**

**Lecture:** The General Zoology course is designed to introduce students to the study of zoology at the organismal and organ function levels. The lecture section of the course will review the general principles of modern zoological theory and provide the student with an introduction to the recent advances in zoology in the areas of systematics, evolution, reproduction, development, animal diversity, and animal ecology. The lectures will reinforce and occasionally expound on subjects covered by assigned reading in the textbook. Supplementary info and material may be made available at the website <http://www.natureboy.com>. *You will need to take notes in class. You should take notes about what I say, not just copy what you see in the slideshow. I will actually make slides available, so it makes no sense to spend time trying to copy down everything on the slide. **Keep in mind, I will tell you things in class that are not in the book.***

**Laboratory:** The laboratory section of the course is designed to allow students to become familiar with the form and function of major animal phyla through observation of living animals, study of prepared slides, examination of model specimens and museum mounts and dissection of preserved specimens. The laboratory will allow students to become familiar with animal classification and systematics. The beginning of each laboratory period will be devoted to a discussion of the form, function and classification of the animal groups covered in that laboratory exercise. The remaining portion of the laboratory exercise will be devoted to the examination of living and preserved specimens. Students should come to laboratory equipped with a dissecting kit, their Laboratory Note Book and Lecture Text, and a #2 pencil for laboratory drawings and labeling of diagrams provided in the Laboratory Notebook. A dissecting kit can be purchased from the UTA Bookstore and would be equivalent to that used in the laboratory of the Structure and Function of Organisms (Biol. 1442) course.

## **Student Learning Outcomes:**

The specific learning goals for General Zoology are to provide students with a working knowledge of fundamental principles in zoology that will provide a foundation for their later advanced course work in more specific biological subjects. Thus, this course will provide students with an opportunity to gain information regarding animal classification and systematics, animal structure and function relationships, evolution between and within major animal groups, human evolution and animal reproduction and development. As General Zoology is a basic course, students will become familiar with animal classification schemes and associated taxonomic group diagnostic characteristics as well as developing an understanding of and ability to apply basic zoological principles. The laboratory and lecture sections of the course are highly integrated and directed toward teaching students the principles of animal evolution, classification, form and function.

## **Required texts:**

**INTEGRATED PRINCIPLES OF ZOOLOGY**, 14<sup>th</sup> ed., C. P. Hickman, L. S. Roberts, A. Larson, and H. I'Anson.

**GENERAL ZOOLOGY LABORATORY MANUAL**, STEPHEN MILLER.

**Laboratory supplement** available online.

**optional: A PHOTOGRAPHIC ATLAS FOR THE ZOOLOGY LABORATORY**, 4<sup>th</sup> ed. K. M. Van De Graaff and J. L. Crawley. This optional text contains labeled photographs of many of the specimens that will be studied in the laboratory. It should prove very useful to students in completing their laboratory exercises and preparing for laboratory exercises and is **strongly recommended**.

## **Attendance Policies:**

Students are very strongly encouraged to attend all classes. **Attendance will be taken during each laboratory period.** Students not attending class are unlikely to pass the course.

## Lecture Topics:

(There is an updated class calendar available on <http://www.natureboy.com>)

| DATE                   | TOPIC   |                                       |
|------------------------|---|---------------------------------------|
| Aug 27                 | <b>INTRODUCTION TO ANIMAL LIFE</b><br>Introduction, Evolution, and Classification           | chapters 1,6, and various other stuff |
| Sep 8                  | <b>ANIMAL STRUCTURE, FUNCTION AND CLASSIFICATION</b><br>Porifera<br>Cnidaria and Ctenophora | chapter 12<br>chapter 13              |
| <b>Sep 13</b>          | <b>Test 1</b>   |                                       |
| Sep 15                 | Acoelomates (Platyhelminthes)   | chapter 14                            |
| Sep 20                 | other Pseudocoelomates / lophotrochozoa   | chapter 15                            |
| Sep 24                 | Annelida  | chapter 17                            |
| Sep 27                 | Mollusca  | chapter 16                            |
| Oct 8                  | Ecdysozoa, nematoda   | chapter 18                            |
| Oct 13                 | Arthropoda  | chapter 19,20,21                      |
| <b>Oct 29</b>          | <b>Test 2</b>   |                                       |
| Nov 1                  | Echinodermata and Hemichordates   | chapter 22                            |
| Nov 3                  | Chordates   | chapter 23                            |
| Nov 8                  | Fishes  | chapter 24                            |
| Nov 10                 | Amphibians  | chapter 25                            |
| Nov 17                 | Mammals   | chapter 28                            |
| Nov 24                 | Reptiles  | chapter 26                            |
| <b>Dec 3</b>           | <b>Test 3</b>   |                                       |
| Dec 6                  | Birds   | chapter 27                            |
| <b>Dec 15 11:00 am</b> | <b>Final Exam</b>   |                                       |

## Grading policy:

**Lecture Grading:** The lecture portion of the course will account for **60% of the final grade**. The tests in the lecture portion of the course will consist of multiple choice and short answer questions. There will be 3 semester tests, together accounting for **45%** of the lecture grade or 15 points each of the final grade out of 100 points. The final examination will consist of around 40 questions, and will be comprehensive over the entire semester. You will have approximately 1 hour to complete the exam. The final examination will account for count like a regular test. **All students will be required to provide their own Scantron form 882-ES answer sheets and #2 pencils for each examination. Scantron answer sheets can be purchased at the University Bookstore.**

**Note about this class: I do not teach to the test. You are not in high school any more.** I will expect you to learn the material. That is what I care about. Learning is paramount. If you gain access to old tests, I advise you not to try to use them as a study guide. The tests are different each semester. If you have learned all the material, you will do well on the test. If you studied tests, you will not do well.

**Laboratory Grading:** The laboratory portion of the course will account for **40% of the final grade**. This grade will come from a combination of unannounced lab quizzes, occasional lab hand-ins, two practical tests, and the laboratory notebook. Laboratory grading will be fully described in an outline to be given out during the first laboratory period.

## Course Grading Summary:

| Source of Grade   | Percentage of the Final Grade |
|-------------------|-------------------------------|
| Lecture Tests 1-3 | 45%                           |
| Laboratory Grade  | 40%                           |
| Final Examination | 15%                           |
| <b>TOTAL</b>      | <b>100%</b>                   |

Final grades will be assigned on a standard 90-80-70-60 percent scale.

## Make-up Examination Policy:

**Students are required to attend all examinations. Only valid, documented, excuses will be accepted for missing an examination.** Without a valid excuse for missing an examination, a student will be assigned a grade of 0% for that examination. A test that was missed for a legitimate reason will be replaced with the grade on the final exam. **SEE ME WITHIN ONE WEEK OF MISSING THE TEST TO QUALIFY!**

**THERE WILL BE NO EXTRA CREDIT, SO DON'T ASK.**

## **Important University Policies:**

**Drop policy:** If you choose to drop the course, you have to do so by November 5. However, I am not expecting you to drop. I am not going to remind you. 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. 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. 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.

**Undergraduate Teaching Assistants:** There may be undergraduate teaching assistants working with the graduate instructor in the teaching of the laboratories. Students carry out this teaching under Biol. 4388 (Instructional Techniques in Biology) and have received a grade of A or B in the General Zoology Course. Please contact the Instructor as soon as possible if you are interested in being an undergraduate teaching assistant in General Zoology after completing the course.