BSc 1413 Laboratory– Zoology
Spring 2013 Syllabus

Instructors:	**Contact Information:**		
	Office Location	**Office hours**	**e-mail address**
Ryan Scauzillo	STC # 202	TWF: 11:00–12:00	rscauzillo@leomail.tamuc.edu
Jerrod Tynes	STC # 241	MW: 10:00 – 11:30	jtynes@leomail.tamuc.edu

Other hours available by appointment.

Required lab manual: *General Zoology Laboratory Manual,7th Ed.* Miller, 2012. ISBN: 9781121812086. This is a custom-made lab manual that has left out several chapters we won't need (at a cost savings to you). It will only be available (in this format) through the campus bookstore or directly from the publisher.

Course Description: This lab is conducted in conjunction with lecture, and is designed to illustrate and augment the topics covered in the lecture portion. These subjects include cellular functions, genetics, development/embryology, physiology, classification, ecology and behavior.

Course Material: The lab manual will be required for every lab, plus additional material as assigned. All additional materials will be available at eCollege or provided in lab. You will need a folder (3-ring binder) for your manual and materials.

Measurable Student Learning Objectives:

- Basic fundamental concepts of biology emphasizing animal systems.
- Diversity and classification of members of the kingdom Animalia. This includes recognizing the features that help derive their classification.
- The basic concepts of genetics and inheritance patterns, primarily through the example of vertebrate species.

Laboratory Safety:

1. There will be **NO** food or drink allowed in the lab.
2. There will be **NO** open-toed shoes allowed in the lab
3. Be careful around open flames
4. Turn off cell phones and other electrical devices before entering the lab, make sure they are put away and not accessed while the lab is in progress.
5. Students that are disruptive will be immediately expelled from the lab and receive a zero for that day's lab grade.
6. Use caution when handling glassware or sharp tools.
7. At the end of the lab, make sure all materials are returned to the proper places.

A Note on Specimens: Specimens on display are to be treated with care, both to keep them available for a maximum amount of time to students and with regards to their well-being. Additionally, some may pose some danger to the untrained handler- such will be marked clearly. ***Please pay attention to any animal labels, and do not move them!***

Live specimens may be harmed or killed by exposure to preservative and other chemicals present in the lab. Do not contaminate water or substrates via hands, forceps, etc., nor touch specimens without clean or gloved hands. In general, don't touch unless instructed to do so.

Policies and Procedures:

1. Attendance is **MANDATORY**. If you do not show up you will lose credit for that day's exercise. Exceptions do apply to those who have a valid excuse (defined in the University's Student's Guidebook)
2. **BE ON TIME.** Any student who is 15 minutes or more late to class will not be able to participate in that day's lab. This will be reflected in your grade.
3. Act responsibly and appropriately in the lab; any forms of horse play or misconduct will result in you being asked to leave.

Course Grading:

Attendance and participation – 10%
Quizzes – 25%
Lab Reports – 25%
Diversity Exam – 10%
Activity Pages – 15%
Animal of Week – 10%

Course Assignments:

- There will be three **lab reports**, over projects in genetics, development and ecology. Students will receive specific instructions in class regarding the details of these assignments.
    - **Genetics**: The students will conduct a genetics experiment using mouse coat colors. They will describe phenotypes, attempt to ascertain genotypes, and predict offspring appearance with Punnett Squares.
    - **Embryology & Development**: The students will study development by first observing incubating chicken eggs via candling, and then the growth of young chicks for an additional few weeks.
    - **Ecology**: There will be an outdoor lab to focus on the topic of ecology. The University Wetlands will be utilized to show how animals interact with their environment. The students will use different techniques to survey organisms within the wetlands and note the type of environment those organisms were found.
- There will be several **quizzes** over the lab exercises. Quizzes will always be given at the beginning of lab, and dates will be announced at least one week in advance.
- At the end of the semester there will be an **exam** over diversity/classifications. More details over this exam will be given when we begin to talk about animal diversity.
- There will also be times were students fill in activity pages such as those found within the lab manual. Due dates will be given on the day that assignment is covered.
- **Animal of the Week**: Students will post a unique animal to the thread at eCollege, according to guidelines that will be handed out shortly. Students must post at least 5 unique contributions (additional postings may be counted as bonus).

TENTATIVE SCHEDULE OF EVENTS**

Week	Start Date	Topic	Materials Needed
1	14-Jan	Lab Safety/Microscopy	Syllabus, Safety Contract, Ex. 1
2	21-Jan	Scientific Method	Ex. 1, Lab 2 Handout
3	28-Jan	Cells	Ex. 2, Intro to Data & Reports
4	4-Feb	Cell Function	Ex. 3, Intro to Chicken Project
5	11-Feb	Cell Division	Ex. 3, Intro to Mouse Project
6	18-Jan	Inheritance	Ex. 4, Lab 6 Handout
7	25-Feb	Embryology	Ex. 5, Lab 7 Handout
8	4-Mar	Ecology Field Lab (pt. 1)	Ex. 6, Lab 8 Handout
	11-Mar	***SPRING BREAK-***	***NO CLASSES***
9	18-Mar	Ecology Field Lab (pt. 2)	
10	25-Mar	Lower Invertebrates	Ex. 7-10, Inverts Handout
11	1-Apr	Higher Invertebrates I	Ex. 11-13
12	8-Apr	Higher Invertebrates II	Ex. 14-16
13	15-Apr	Ectothermic Vertebrates	Ex. 17, Vertebrates Handout
14	22-Apr	Endothermic Vertebrates	
15	**29-Apr**	**Lab Final/Presentations**	

*This lab schedule is tentative and is subject to change, exact exercises will be announced in class

Obligatory Statements

Disabilities — The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have disability requiring accommodations please contact: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Gee Library, Room 132, phone (903) 886-5150 or (903) 886-5835, fax (903) 468-8148, StudentDisabilityServices@tamuc.edu.

Behavior — All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct)

Plagiarism — Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material, whether parts of sentences, whole sentences, paragraphs, or entire articles can result in a score of zero for your assignment and may result in further disciplinary action.

Early Intervention for First Year Students — Early intervention for freshmen is designed to communicate the University's interest in their success and a willingness to participate fully to help students accomplish their academic objectives. The university through faculty advisors and mentors will assist students who may be experiencing difficulty to focus on improvement and course completion. This process will allow students to be knowledgeable about their academic progress early in the semester and will provide faculty and staff with useful data for assisting students and enhancing retention. Grade reports will be mailed by the end of the sixth week of the semester.