Professor: Stephen Mullin  
tel: 936.468.3601  
email: sjmullin<at>sfasu.edu  
Office: MillerSci. 101  
Mailbox in dept. office (MillerSci. 101)  
Office Hours: Thursdays 1500-1700 h; or, by appointment.

Course Description – One semester hour, two hours lab per week. Fundamental principles of animal life, including invertebrate and vertebrate animals. Required lab fee.

Synopsis – This course is structured to give an overview of the animal phyla, examining the diversity of body plans and their functions that are representative of Kingdom Animalia. Material presented in lecture will be supplemented with laboratory examinations of, and experimentation with, both living and preserved specimens. Evolutionary relationships between major taxonomic groups within the animal kingdom will be emphasized throughout the semester. I also assume that students enroll in this course because they enjoy the challenge of learning more about animals.

Co-requisite – Bio133 lecture  
Note, that there is a laboratory fee associated with this course (appearing on your tuition bill). This fee is assessed to all students to partially defray expenses associated with lab supplies.

Required Materials – lecture:  

Optional Materials – laboratory:  
Experiment/exercise notebook (3-ring binder w/ paper)

Attendance –  
This laboratory section meets on Mondays from 1500-1650 h. Attendance is mandatory for the lab exercises: more than two unexcused absences during the term will result in your receiving a failing grade (“F”) for the entire course. If you expect to miss a lab because of an official SFA-related function, see me in advance of that week, as you will be responsible for the material taught during that time.

I would like to discourage distractions during our meeting times. Therefore, any student will be penalized ten (10) points if their pager/mobile telephone/tablet/etc. emits any audible noise during any class meeting.
Grading –

1. Participation will be evaluated during each lab meeting. You will get full credit for participation as long as you work with your group to complete the activity in the allotted time. Points will be deducted if you: (a) are absent for any reason; (b) fail to complete assignments; (c) show up late to lab; or (d) in some other way, disrupt the lab activities. See posted Lab Rules for list of deductions.

2. Pre-lab quizzes will be based on material in the “Before You Go to Lab” section of each lab exercise, as well as information from the previous week’s lab (including representative taxa). It is your responsibility to completely answer the questions in each section before you come to lab; this work must be completed individually. The highest 10 quiz scores (out of 11) will be used in determining your lab grade. There are no make-ups for lab quizzes – showing up late or leaving lab early will result in a zero for that week’s quiz.

3. Lab write-ups are collaborative efforts involving all members of your lab group; forms for each lab write-up will be provided. Failure to follow instructions &/or submitting files in unreadable or inaccessible formats might result in receiving no credit for lab write-ups.

4. Journal Article Assignments: Journal articles will be reviewed using a format provided by your instructor. Forms will each assignment will be provided; you should work individually and submit material before each deadline. Failure to follow instructions &/or submitting files in unreadable or inaccessible formats might result in receiving no credit for these assignments.

5. Research projects are collaborative efforts about the content of each of 2 lab exercises. Project forms will be provided, and participation from all members of your lab group is expected. Failure to follow instructions &/or submitting files in unreadable or inaccessible formats might result in receiving no credit for these project reports.

So the point breakdown for the lab portion of the course looks like this:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>100</td>
</tr>
<tr>
<td>Pre-lab quizzes (best 10 @ 20 pts. each)</td>
<td>200</td>
</tr>
<tr>
<td>Lab write-ups (10 @ 25 pts. each)</td>
<td>250</td>
</tr>
<tr>
<td>Journal article assignments (5 @ 10 pts. each)</td>
<td>50</td>
</tr>
<tr>
<td>Research projects (2 @ 50 pts. each)</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td>700 points</td>
</tr>
</tbody>
</table>

Thus, your awarded grade for the lab will be based on a 700-point scale. At the end of the term, the percent score that you earn in this portion of the course is forwarded to the professor for your lecture section. You will then be assigned an overall grade for the combined lecture and lab portions of the course using the following formula:

$$\text{Bio133 course grade} = \frac{[3 \cdot \text{(lecture grade)}] + \text{lab grade}}{4} \cdot 100$$
Proper English counts! One point will be deducted from your exam total for every 5 spelling/grammar/context/syntax/punctuation errors on any submitted assignment or exam.

Academic Integrity -- I expect that you will never passively or actively cheat on any of the assignments or exams for this course, or those administered by your other instructors. Any incidence of cheating or plagiarism will result in an automatic failing grade ("F") for the entire course, and notifications to the Dean’s Office and the Office of Student Rights & Responsibilities. Please feel free to consult the Student Conduct Code if you have any questions concerning this matter. Also, see information provided on the following pages.

Further Assistance with course material -- If you suddenly find yourself with a question that is burning a hole in your brain, and cannot reach me, there are several ways of obtaining the answer. Here are some examples:
1. The authors of your lecture text have thoughtfully provided a variety of resources for you to follow up on presented material. The citations and websites are listed at the end of each chapter in the text.
2. SFA provides the Academic Assistance and Resource Center (AARC) for all aspects of your academic achievement. To make an appointment, call 936.468.4108, or go to their office in the 1st floor of the Steen Library.
3. Help each other -- get to know your fellow students! Active learning through testing each other on the material is one of the most effective ways to learn where your weaknesses lie with this subject matter.

ASSIGNMENT #1 – due Friday, 29 Jan. (by 1600 h) – 5 participation points
Using your preferred e-mail address, send me an email message containing the following items, un-numbered, each on a new line of text:

- your name as you wish to be addressed
- your CID
- a version of the following statement: "Yes/No you may/may not post my grade by special code."
  [If "yes," then provide 6-digit code on a new line of text -- you may use any sequence of numbers or letters].
- your phone #
- a version of the following statement: "Yes/No you may/may not release my phone number to the rest of the class."
- your class standing
- your major/degree option
<table>
<thead>
<tr>
<th>Date</th>
<th>Subject matter (advance reading indicated in parentheses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Jan.</td>
<td>Introductory material &amp; Microscope use</td>
</tr>
<tr>
<td>1 Feb.</td>
<td>Evolution Game</td>
</tr>
<tr>
<td>8 Feb.</td>
<td>Systems &amp; Processes — Cardiovascular (Lab 2)</td>
</tr>
<tr>
<td>15 Feb.</td>
<td>Systems &amp; Processes — Musculoskeletal (Lab 3)</td>
</tr>
<tr>
<td>22 Feb.</td>
<td>Classification &amp; Phylogeny (Lab 5)</td>
</tr>
<tr>
<td>29 Feb.</td>
<td>Radiate animals – Cnidaria (Lab 6)</td>
</tr>
<tr>
<td>7 Mar.</td>
<td>Lophotrochozoa I – Platyhelminthes &amp; Rotifera (Lab 7)</td>
</tr>
<tr>
<td>14 Mar.</td>
<td>SPRING BREAK</td>
</tr>
<tr>
<td>21 Mar.</td>
<td>Lophotrochozoa II — Mollusca &amp; Annelida (Lab 8)</td>
</tr>
<tr>
<td>28 Mar.</td>
<td>Research the likelihood that rabbits lay chocolate eggs.</td>
</tr>
<tr>
<td>4 Apr.</td>
<td>Nematoda &amp; Arthropoda I — Chelicerata (Lab 9)</td>
</tr>
<tr>
<td>11 Apr.</td>
<td>Arthropoda II — Crustacea &amp; Hexapoda (Lab 10)</td>
</tr>
<tr>
<td>18 Apr.</td>
<td>Echinodermata (Lab 11)</td>
</tr>
<tr>
<td>25 Apr.</td>
<td>Chordata I — Gnathostomata (Lab 12)</td>
</tr>
<tr>
<td>2 May</td>
<td>Chordata II — Tetrapoda (Lab 13)</td>
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</tbody>
</table>

Questions? Feel free to contact me at your convenience (936.468.3601 or sjmullin<at>sfasu.edu).
Miscellany as required by the University:

Students with Disabilities
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Academic Integrity (A-J)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

Withheld Grades Semester Grades Policy (A-S)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Program Learning Outcomes:
PLO 1: The student will demonstrate a good knowledge base in biological concepts.
PLO 4: The student will be able to design, carry out, and analyze experiments to answer biological questions using the scientific method.
PLO 6: The student will demonstrate preparation for future career and educational goals.

General Education Core Curriculum Objectives / Outcomes
EEO #1: To understand and apply method and appropriate technology to the study of natural sciences.
EEO #2: To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretations both orally and in writing.
EEO #3: To identify and recognize the differences among competing models of scientific theories.
EEO #4: To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
EEO #5: To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution, to modern culture.

General Education Core Curriculum
This course has been selected to be part of Stephen F. Austin State University’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these objectives.

The table below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course, and the date the assignment(s) should be uploaded to LiveText. Not every assignment will be collected for assessment every semester.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in LiveText</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, and synthesis of information.</td>
<td>Shoaling behavior in zebrafish</td>
<td>Provided in lab</td>
</tr>
<tr>
<td>Empirical &amp; Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>Shoaling behavior in zebrafish</td>
<td>Provided in lab</td>
</tr>
<tr>
<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
<td>Flatworm phototropism</td>
<td>Provided in lab</td>
</tr>
</tbody>
</table>

Student Learning Outcomes:
Student’s understanding will be evaluated with weekly quizzes, lab reports and two scheduled exams covering multiple exercises. The final lab grade counts 1/3 of their final Bio 133 grade. Students who successfully complete the Introductory Zoology Laboratory will be able to:

1. Give concise and accurate answers to questions. (EEO 2, 3, 4; PLO 1, 4, 6).
2. Demonstrate a competent knowledge of the relationships of the organisms studied. (EEO 1, 3, 5; PLO 1, 4).
3. Demonstrate proper microscope usage skills. (EEO 1, 2, 5; PLO 1, 4, 6).
4. Demonstrate a proficient vocabulary of biological terms. (EEO 1, 2; PLO 1, 4, 6).
5. Demonstrate a competent knowledge of the binomial system of nomenclature. (EEO 1, 3, 4; PLO 1, 4, 6).