Welcome to BIOLOGY 133! This course is designed to provide students with a rigorous and comprehensive introduction to the Kingdom Animalia. Although this course fulfills a core science requirement for non-science majors, the content is designed for life science majors (unlike BIO 121 & BIO 123 which are developed specifically for non-science majors). We will cover many topics including diversity, classification, physiology, anatomy, and evolution of both vertebrate and invertebrate animals.

COURSE CATALOG DESCRIPTION: Four semester hours, three hours lecture per week, two hours lab per week. Fundamental principles of animal life, including invertebrate and vertebrate animals. Required lab fee.

Instructor: Dr. Dan Bennett  
Department: Biology  
Phone: 468-5163  
E-mail: bennettdj@sfasu.edu  
Office: S-210; Office hours: T, R 9:30–12:00 (drop-ins welcome, no appointment needed); widely available by appointment for other times.

Supplemental Instruction  
S.L. leader: Jessie Torres; contact info. TBA; SI sessions: TBA

Required Materials  


Course Website: https://d2l.sfasu.edu/ Check daily for announcements, lecture slides and other materials.

GRADING POLICY  
Lecture exams: 70% (5 required exams, 14% each; 6th optional final exam replaces lowest of exams 1–5)  
Quizzes: 5% (lowest score dropped)  
Lab: 25%  
Note that lecture and lab grades are combined and applied to both BIO 133 & 133L. For example, if you earn an A in lecture, a C in lab, and a B overall, your transcript will record a B for both lecture (133) and lab (133L). No supplemental assignments are provided on an individual basis at the end of the course to boost one’s grade.

GRADING SCALE:  
A = 90–100%; B = 80–89%; C = 70–79%; D = 60–69%; < 60% = F

EXAMS: On exam days, be sure to bring a pencil. An answer sheet and/or scantron will be provided by the instructor.

Do not miss an exam or arrive late. At a minimum, latecomers will be assessed a penalty. A student arriving more than 15 minutes late may be denied the exam. Unless extraordinary circumstances apply, makeup exams must be completed before the next class period and will only be allowed for students with an excused absence. Excused absences are granted for serious illness, injury, university-sponsored event, or death in the family. Documentation (e.g., doctor’s note) will be required. Note that the Office of Student Rights and Responsibilities will provide notification of absences to instructors but do not provide verification. Thus, if you miss an exam and wish to claim an excused absence and be provided a makeup, contact the instructor by email, phone, or office visit within two business days of the missed exam, provide documentation with verification, and discuss options. If it is not possible to make up the exam before the next class period, the comprehensive final may be used as a makeup option.

QUIZZES: Short quizzes will be delivered through D2L and serve as practice for upcoming exams. Late quizzes are not accepted. Answers to quizzes will post shortly after the due date.

PARTICIPATION & ATTENDANCE POLICY: Although attendance is not a direct component of the grade calculation, students with poor attendance typically do not pass this course. Good attendance and participation may be associated with bonus points applied towards an upcoming exam. However, bonus points are withheld if students exhibit poor behavior (including cell phone use, texting, private conversations, seeping, appearing to sleep, tardiness etc.). Participation in the end-of-course evaluation is a requirement and will be associated with either a 1–2% penalty for failing to complete and/or 1–2% bonus for completing applied to exam 5.

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 (see the Student Conduct Code, policy D-34.1).
Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom.

Do not carry on a separate conversation that might be distracting to your neighbors. Keep cell phones silenced and stowed away. Students texting, arriving late, leaving early, sleeping, talking amongst themselves, not participating in activities, repeatedly returning to and from class, or otherwise misbehaving may be subject to loss of points and/or dismissed from class. The use of a computer is allowed for taking notes only.

SUGGESTIONS

- Check D2L daily for announcements.
- Use the course calendar. An up-to-date version is always posted on d2l.
- Use the textbook. Skim the appropriate chapter before class. After class, read in detail areas overlapping with the lecture.
- Print lecture slides before class and bring them to lecture. These consist of skeletal outlines that you will complete during lecture. They are designed to give you a head start and provide you with figures and diagrams. Don’t expect to be able to always keep up taking notes without this head start.
- Study at least 1–2 hours per lecture. Stay caught up and avoid cramming all your studying in a few days before the exam.
- Ask questions, but in class and during office hours.

STUDENT LEARNING OUTCOMES/OBJECTIVES (SLOs)

SLO 1. Critically assess information in primary literature articles and communicate conclusions in oral and written form (CO 1, 2)
SLO 2. Work in teams to apply basic methods for developing and testing scientific hypotheses and communicate their conclusions in oral, visual, and written form. (CO 1, 2, 3, 4)
SLO 3. Explain how comparative methods are used to understand animal evolution (“tree-thinking”) & classification. (CO 1, 2, 3)
SLO 4. Describe how anatomical and physiological adaptations have evolved in different ecological contexts. (CO 1)
SLO 5. Identify major animal lineages and their distinguishing characteristics. (CO 1)

PROGRAM LEARNING OUTCOMES

PLO 1. The student will demonstrate a good knowledge base in biological concepts. (SLOs 3-5)
PLO 2. Clearly articulate scientific information in oral form. (SLOs 1-2)
PLO 3. Clearly articulate scientific information in written form. (SLO 1-2)
PLO 4. Be able to design, carry out, and analyze experiments to answer biological questions. (SLO 2)
PLO 5. Demonstrate teamwork skills needed to coordinate diverse multidisciplinary teams to solve challenges in the biological world. (SLO 2)

GENERAL EDUCATION CORE CURRICULUM OBJECTIVES

Texas State Core Objectives and associated Student Learning Outcomes.

CO 1. Critical Thinking: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information. (SLOs 1-5)
CO 2. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication. (SLOs 1-3).
CO 3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. (SLOs 1-3)
CO 4. Teamwork: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal. (SLO 2)

ACADEMIC INTEGRITY: Academic integrity is expected of everyone in this course. Any form of academic dishonesty will lead to the student receiving a failing grade for the entire course. Additionally, a Report of Academic Dishonesty form will be submitted to your Dean’s office.

SFA Policy A-9.1 is summarized as follows: 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-54): 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. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

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, 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 accommodation. For additional information, go to http://www.sfasu.edu/disabilityservices/. Please note that you must visit with me outside of class time concerning your request before I will be able to provide the accommodations described in the notification from ODS.
<table>
<thead>
<tr>
<th>Week</th>
<th>TOPICS</th>
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| 1: Jan. 16   | Intro; definitions (Ch 1)  
Properties of life (Ch 1)  
Lab: No lab |
| 2: Jan. 21, 23 | Nature of science (Ch 1)  
Heredity (Ch 5)  
Reproduction (Ch 7)  
Lab: Intro & microscope |
| 3: Jan. 28, 30 | Development (Ch 8)  
Body types (Ch 9)  
Lab: Foraging and predator-prey relationships |
| 4: Feb. 4*, 6 | *Exam 1: Tuesday Feb. 4  
Evolution (Ch 6)  
Lab: Cardiovascular |
| 5: Feb. 11, 13 | Systematics (Ch10)  
Life overview; Porifera (Ch 12)  
Lab: Muscular system |
| 6: Feb. 18, 20 | Cnidaria, Ctenophora (Ch 13)  
Homeostasis I (Ch 30)  
Lab: Phylogenetics |
| 7: Feb. 25*, 27 | *Exam 2: Tuesday Feb. 25  
Homeostasis II (Ch 31)  
Lab: Cnidarians |
| 8: Mar. 3, 5 | Acoelomorpha, Rotifera etc., Platyhelminthes (Ch 14)  
Mollusca (Ch 16)  
Annelids (Ch 17)  
Lab: Lophotrochozoa I |
| 9: Mar. 17, 19 | Smaller Ecdysozoa (Ch 18)  
Arthropoda I: intro, Chelicerata, Myriapoda (Ch 19)  
Lab: Lophotrochozoa II |
| 10: Mar. 24*, 26 | *Exam 3: March 24  
Arthropoda II: Crustacea (Ch 20)  
Arthropoda III: Hexapoda (Ch 21)  
Lab: Nematodes, Arthropods I |
| (Last day to drop courses: Mar. 25) |
| 11: Mar. 31, Apr. 2 | Echinodermata and kin (Ch 22)  
Chordata (Ch 23)  
Fishes (Ch 24)  
Lab: Arthropods II |
| 12: Apr. 7 | Digestion, nutrition (Ch 32)  
Lab: Echinodermata |
| 13: Apr. 14*, 16 | *Exam 4: Tuesday April 14  
Amphibians (Ch 25)  
Non-avian reptiles (Ch 26)  
Lab: Vertebrata I |
| 14: Apr. 21, 23 | Support, protection, movement (Ch 29)  
Nervous system (Ch 33); Protozoa (Ch 11)  
Lab: Vertebrata II |
| 15: Apr. 28, 30 | Birds (Ch 27)  
Mammals (Ch 28) |
| 16: Finals week | *Tues. May 5, 8:00 a.m.: exam 5 (required) & exam 6 (optional comprehensive final) |
General Education Core Curriculum
The Texas Higher Education Coordinating Board has identified six core learning objectives: 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 six objectives. By enrolling in Bio 131 you are also enrolling in a Core Curriculum Course that fulfills the Empirical and Quantitative Skills requirement.

At one point during the semester, you will receive an assignment that fulfills both the requirements of this course and the needs of Stephen F. Austin State University’s Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both your standard course dropbox determined by your Instructor and the “Core Curriculum” dropbox. The Core Curriculum dropbox will be identified by the Objective for which work is being collected. (Examples: Critical Thinking, Teamwork, Social Responsibility Empirical & Quantitative Skills, Personal Responsibility, Communication Skills-Written, Communication Skills-Written & Visual, and Communication Skills- Oral & Visual.) Please note that this only applies to the approved assignment. All other assignments should be submitted according to regular class operations.

When you complete the assignment mentioned above, you will upload the assignment to both the Bio 133 Lab dropbox and the Empirical and Quantitative Skills dropbox.

Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations.

If you have any questions, please see your instructor, or contact the Institutional Effectiveness Office at (936) 468-1130.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to the D2L Empirical and Quantitative Skills dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Empirical and Quantitative Skills dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Empirical and Quantitative Skills dropbox.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in D2L</th>
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<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
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<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication.</td>
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<tr>
<td>Empirical and 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 (lab assignment)</td>
<td>Deadline provided in lab section</td>
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<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>
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