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 material is aimed at 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: M, W 10:00-12:30 and by appointment.

Supplemental Instruction:
S.I. leader: Archie Sauls; aray637@gmail.com
SI sessions: TBA

Required Materials
Text: Integrated Principles of Zoology, 16th Edition, Hickman et al. (16th edition required); online “access code” not required (the latter is suggested only if a digital version is preferred).

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

GRADING POLICY
Lecture exams = 75% of grade (5 exams: exam 1 = 12%; exam 2 = 15%; exam 3 = 15%; exam 4 = 15%; exam 5 = 18%)
Lab = 25% of grade
Note that lecture and lab grades are combined and applied to both BIO 133 & 133L. For example, a student who earns an A in lecture, a C in lab, and a B overall, will receive a B for both lecture (133) and lab (133L) on his/her transcript.

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

EXAMS: Bring a pencil and a full size scantron form (no. 30423, available from campus bookstores). Exams will consist mainly of multiple-choice questions, though there may be some short answer or fill in the blank. Seating may be assigned on exam days. Do not miss an exam or arrive late. At a minimum, latecomers will be assessed a penalty. A student arriving more than 10 minutes late may be denied the exam. Makeup exams will only be allowed for students with an excused absence. Excused absences are granted for a serious illness, university-sponsored event, or death in the family. Documentation (e.g., doctor’s note) will be required. If you miss an exam, contact your instructor by email, phone, or office visit within 48 hours to discuss options. Makeup exams may be of a different format (largely fill in the blank and short answer questions).

PARTICIPATION & ATTENDANCE POLICY: Although attendance is not a direct component of the grade calculation, students with poor attendance typically do not pass this course. If you do miss a session, be sure to obtain notes from one of your peers or catch up with the textbook. Participation in the end of course evaluation is required.

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, or otherwise misbehaving are not eligible for bonus points, may jeopardize bonus points awarded to the whole class, and may be subject to additional loss of points. 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.
• Utilize office hours and know that I’m very glad to help as much as I can.

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>
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<tr>
<th>Week</th>
<th>TOPICS</th>
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| 1: Jan. 15–19 | M: Holiday  
W: Intro; Definitions (Ch1)  
F: Properties of life; Nature of science (Ch 1)  
Lab: No lab |
| 2: Jan. 22–26 | M: Nature of science (Ch 1); Heredity (Ch 5)  
W: Reproduction (Ch 7)  
F: Development (Ch 8)  
Lab: Intro & microscope |
| 3: Jan. 29–Feb. 2 | M: Development (Ch 8)  
W: Body types (Ch 9)  
*F: Exam 1  
Lab: Foraging and predator-prey relationships |
| 4: Feb. 5–9 | M: Evolution (Ch 6)  
W: Evolution (Ch 6); Systematics (Ch 10)  
F: Systematics (Ch 10)  
Lab: Cardiovascular |
| 5: Feb. 12–16 | M: Digestion, nutrition; Life overview (Ch 32)  
W: Life overview; Protozoa (Ch 11)  
F: Porifera (Ch 12)  
Lab: Muscular system |
| 6: Feb. 19–23 | M: Cnidaria (Ch 13)  
W: Ctenophora (Ch 13)  
*F: Exam 2  
Lab: Phylogenetics |
| 7: Feb. 26–Mar. 2 | M: Homeostasis I (Ch 30)  
W: Homeostasis II (Ch 31); Rotifera etc., (Ch 14)  
F: Platyhelminthes (Ch 14)  
Lab: Cnidarians |
| 8: Mar. 5–9 | M: Mollusca (Ch 16)  
W: Mollusca (Ch 16); Annelids (Ch 17)  
F: Smaller Ecdysozoa (Ch 18)  
Lab: Lophotrochozoa I |
| 9: Mar. 19–23 | M: Arthropoda I: intro, Chelicerata, Myriapoda (Ch 19)  
W: Arthropoda I: intro, Chelicerata, Myriapoda (Ch 19)  
*F: Exam 3  
Lab: Lophotrochozoa II |
| 10: Mar. 26–30 | M: Arthropoda II: Crustacea (Ch 20)  
W: Arthropoda III: Hexapoda (Ch 21)  
F: Holiday  
Lab: Nematodes, Arthropods I |
| 11: Apr. 2–6 | M: Support, protection, movement (Ch 29)  
W: Echinodermata and kin (Ch 22)  
F: Chordata (Ch 23); Fishes (Ch 24)  
Lab: Arthropods II |
| 12: Apr. 9–13 | M: Fishes (Ch 24)  
W: Fishes (Ch 24)  
*F: Exam 4  
Lab: Echinodermata |
| 13: Apr. 16–20 | M: Nervous system (Ch 33)  
W: Endocrine system; Immune system (Ch 34, 35)  
F: Amphibians (Ch 25)  
Lab: Vertebrata I |
| 14: Apr. 23–27 | M: Non-avian reptiles (Ch 26)  
W: Non-avian reptiles (Ch 26)  
F: Birds (Ch 27)  
Lab: Vertebrata II |
| 15: Apr. 30–May 4 | M: Birds (Ch 27)  
W: Mammals (Ch 28)  
F: Mammals (Ch 28)  
**Final Exam:** Wed. May 9, 8:00 a.m.