

BIOLOGY 1313_001 GENERAL ZOOLOGY (3 CREDIT HOURS)
Spring 2015 Sul Ross State University

Instructor: Anne Marie Hilscher **Phone:** (432) 837-8820
Office: WSB 220 **Class time:** MWF 11:00am-11:50am WSB 201
Office hours: Mon 2-4; Tues/Thurs 11:00-12:30, and by appt.
Email: ahilscher@sulross.edu (Type "Biology 1313_001" in subject line)

TEXTBOOKS:

Lecture: Miller, Stephen A. and John P. Harley. 2013. *Zoology*, 9th edition. McGraw Hill.
ISBN 978-0-07-352417-7; ISBN 0-07-352417-4 **RECOMMENDED**

Lab: Smith, David G. 2002. *Exercises for the Zoology Laboratory*, 3rd ed. Morton Publishing.
ISBN 978-1-61731-062-1 ****REQUIRED****

COURSE DESCRIPTION

General Zoology provides a general survey of the animal kingdom, which considers the fundamentals of biological facts, laws, and principals as they apply to animals and functions of the organs and systems of representative animals.

Core Objectives Addressed

- 1) Communication Skills – Students will effectively communicate the results of scientific investigations; using oral, written, and visual communication, either in group discussions or on written exams.
- 2) Critical Thinking Skills – Students will include creative thinking, innovation, inquiry, and analysis required to relate new information with previous information in a way that demonstrates the diversity and similarity due to evolutionary ancestry.
- 3) Empirical and Quantitative Skills – Students will use basic math skills to solve problems (e.g. related to genetic outcomes, cellular energy production, and probability) resulting in informed conclusions.
- 4) Teamwork Skills – Students will work effectively with others to support a shared goal during lab sessions on activities, such as dissections, problem solving, and other experimental procedures.

ATTENDANCE. Missing any exam without notifying me in advance will result in a zero for that exam grade—no exceptions. You must call my office, leave a message, or tell me in person. You will have **FIVE** days (including weekends) from the exam date to make up a missed exam; often, the makeup exam will be different from the original exam. **If you fail to appear (on time) for your scheduled exam or a makeup exam, you will be given a zero for that exam.** ****If you arrive for an exam after other students have completed and turned in their exam, you will not be allowed to take the exam.**** Finally, if you miss a class, it is your responsibility to get notes and other important information from a classmate. I will not re-teach lectures on an individual basis.

GRADING

Comprehension Tests (4 @ 100 pts)	400
<u>Final lecture exam</u>	<u>150 (comprehensive)</u>
TOTAL	550 points

The use of books, notes, cell phones, etc. during exams is not permitted. The only thing allowed at your desk during an exam is a writing implement.
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Program Learning Outcomes (PLOs) for Biology

1. Demonstrate a mastery of aerobic respiration and its significance for living organisms.
2. Be able to identify evolution and the processes that influence it.
3. Be able to identify the components of cell structure and their functions.
4. Compare the fundamental concepts of Mendelian genetics.
5. Compare and contrast the process of photosynthesis to other cellular processes.
6. Be able to identify the processes of molecular biology.

COURSE OBJECTIVES

- 1) Students will identify, recall, and label basic cellular structures and processes.
- 2) Students will identify animal-like protists and classify organisms within the kingdom Animalia
- 3) Students will be able to summarize and explain the processes of evolution.
- 4) Students will be expected to demonstrate understanding of the genetic code and how it relates to protein synthesis.
- 5) Students will understand physiological systems, such as aerobic respiration and reproduction

TENTATIVE COURSE SCHEDULE (subject to change)

WEEK	DATE	MWF 11:00am-11:50am	This week in LAB
1	W Jan 21	Ch 1 Zoology & Ecological Perspective	**No Labs the first week**
	F Jan 23	Ch 7 Animal Classification	
2	M Jan 26	Ch 7 Animal Classification, cont.	Ch 1 Lab Skills & Ch 2 Cells & Tissues
	W Jan 28	The Chemistry of Life (<i>not in text</i>)	
	F Jan 30	The Chemistry of Life, cont.	
3	M Feb 02	Ch 2 Cells, Tissues, Organs, etc.	Ch 3 Reproduction & Development
	W Feb 04	Ch 2 Cells, Tissues, Organs, etc., cont.	
	F Feb 06	Ch 3 Cell Division (Mitosis)	
4	M Feb 09	Catch-up and Review	Ch 4 Animal-like Protists
	W Feb 11	Comprehension Test #1	
	F Feb 13	Ch 3 Inheritance (Meiosis & DNA Structure)	
5	M Feb 16	Ch 3 Inheritance (Meiosis & DNA Structure)	Ch 5 Porifera & Ch 6 Cnidaria
	W Feb 18	Cellular Respiration (not in text)	
	F Feb 20	Cellular Respiration, cont.	
6	M Feb 23	Ch 4 Evolution: History & Evidence	Lab Practical #1
	W Feb 25	Ch 5 Evolution: Gene Frequencies	
	F Feb 27	Ch 5 cont.	
7	M Mar 02	Catch-up and Review	Ch 7 Platyhelminthes
	W Mar 04	Comprehension Test #2	
	F Mar 06	<i>Rosalind Franklin and Photo 51 (not in text)</i>	
8	M Mar 09	Ch 29 Reproduction & Development	Ch 8 Mollusca
	W Mar 11	Ch 29 Reproduction & Development, cont.	
	F Mar 13	Ch 9 Poriferans	
9	March 16-20 NO CLASS—Spring Break		
10	M Mar 23	Ch 9 Cnidarians	Ch 9 Annelida & Ch 10 Nematoda
	W Mar 25	Ch 9 Cnidarians, cont.	
	F Mar 27	Ch 10 Platyhelminthes	
11	M Mar 30	Ch 10 Platyhelminthes, cont.	Ch 11 Arthropoda & Ch 12 Echinodermata
	W Apr 01	Catch-up and Review	
	F Apr 03	Comprehension Test #3	

12	M Apr 06	Ch 11 Mollusks	Lab Practical #2 Apr 10: Last day to drop with a "W"
	W Apr 08	Ch 11 cont.	
	F Apr 10	Ch 12 Annelids	
13	M Apr 13	Ch 13 Nematodes	Ch 13 Chordata & Ch 14 Actinopterygii Planarian Report due April 17th by 5:00 pm
	W Apr 15	Ch 14 Intro to Arthropods	
	F Apr 17	Ch 14 Intro to Arthropods, cont.	
14	M Apr 20	Ch 15 Hexapods (Insects)	HERPS! Ch 15 Amphibia & Ch 16 Reptilia
	W Apr 22	Ch 15 cont.	
	F Apr 24	Catch-up and Review	
15	M Apr 27	Comprehension Test #4	Ch 17 Aves & Ch 18 Mammalia
	W Apr 29	Ch 17 Chordates	
	F May 01	Ch 18 Fishes	
16	M May 04	Ch 18 Fishes, cont. Ch 19/20 Amphibians/Reptiles	Lab Practical #3 (All lab practicals to be taken on Wednesday, May 6th)
	W May 06	Ch 19/20 cont.	
	F May 08	NO CLASS – SRSU STUDY DAY	
17	MAY 11-14 FINAL EXAMS (Time TBA)		

Students with any learning disabilities will be provided with accommodations. If you would like to request such accommodation please contact the ADA coordinator at 837-8203, FH 112.