BIOLOGY 1313 GENERAL ZOOLOGY

SRSU Syllabus and Course Information

Spring 2022

Instructor: Barbara Scown
Alpine High School

Class time: Mon-Fri 1:10-1:59 Rm. 11

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 [OPTIONAL]

Lab: Smith, David G. 2002. *Exercises for the Zoology Laboratory*, 3rd ed. Morton Publishing.
ISBN 978-1-61731-062-1 [absolutely 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 classroom activities, such as dissections, problem solving, and other experimental procedures.

ATTENDANCE. ATTENDANCE IN CLASS/LAB IS MANDATORY. If you are absent (with acceptable excuse) for a test, you will have seven days (including weekends) from the exam date to make up that missed exam; the makeup exam will be different from the original exam. If you miss a class, it is your responsibility to get notes and other important information from a classmate.

The use of books, notes, cell phones, etc. during exams is not permitted. The only item allowed at your desk during an exam is a writing implement.

PROGRAM LEARNING OUTCOMES (PLOs):

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

WK	DATE	Monday-Friday 11:27-12-17	Lab Skills Added to Lecture
1	Jan 10-12	Ch 1 Zoology: The Evolutionary & Ecological Perspective	
	Jan 13-14	Ch 7 Animal Classification	
2	Jan 18-19	The Chemistry of Life	Ch 1 Lab Intro; Ch 2 Cells & Tissues
	Jan 20-21	Ch 2 Cells, Tissues, Organs, etc.	
3	Jan 24-28,31	Ch 3 Cell Division (Mitosis); Ch 3 Sex Cell Formation(Meiosis)	Ch 4 Animal-like Protists
	Feb 01	Test #1	
4	Feb 02-04	Ch 3 Inheritance (DNA Structure & Protein Synthesis)	Ch 5 Porifera; Ch 6 Cnidaria
	Feb 07- 09	Cellular Respiration	
5	Feb 10-11	Ch 4 Evolution: History & Evidence	Ch 7 Platyhelminthes; *Planarian*
	Feb 14-15	Ch 5 Evolution: Natural Selection	
6	Feb 16-18,21	Evolution, cont.	Lab Makeup
	Feb 22	Test #2	
7	Feb 23-25	Ch 29 Reproduction & Development (Embryogenesis)	Ch 8 Mollusca
	Feb 28	Development (Embryogenesis) cont.	
8	March 01	Ch 9 Poriferans	Ch 9 Annelida; Ch 10 Nematoda
	March 3-4	Ch 9 Cnidarians	
9	Mar 14-17	Ch 10 Platyhelminthes	Ch 11 Arthropoda &
	March 18	Test #3	Ch 12 Echinodermata
10	Mar 21-22	Ch 11 Mollusks	Lab Makeup
	Mar 23-25	Ch 12 Annelids; Ch 13 Nematodes	
11	Mar 30-31	Ch 14 Intro to Arthropods	Ch 13 Chordata; Ch 14 Actinopterygii
	April 1,4-5	Ch 15 Hexapods (Insects)	
12	April 06-08	Ch 17 Chordates	Ch 15 Amphibia; Ch 16 Reptilia;
	April 11	Ch 17 Chordates, cont.	

13	April 12	Test #4	Ch 17 Aves;
	April 13-15	Ch 18 Fishes	
14	April 19-22	Ch 19/20 Amphibians/Reptiles	Ch 18 Mammalia
	April 25	Amphibians/Reptiles cont	
	April 26-29	Ch 21/22 Aves/Mammalia	
16	FINAL EXAMS May 3 (Time TBA)		

LECTURE GRADE:

Comprehension Tests (4 @ 100 pts) 400
Quizzes (4@ 50 pts) 200
Final lecture exam 100 (comprehensive)

TOTAL 700 points

Classroom Etiquette: Please observe the following rules during class.

1. Pay attention. Do your assignments and turn them in on time
2. When in doubt, ASK. This guideline applies to lab protocol, quiz or exam questions, assignments.
3. Please be on time.
4. Please silence/turn off cell phones.
5. No food, drink, or tobacco use in class.

Dissections: Students are expected to display proper laboratory safety and dissecting techniques during dissection days. If you are not comfortable with dissections or handling organisms speak to instructors for alternatives.

This lab is scheduled to dissect the follow organisms:

1. Nematoda: pig roundworm
2. Mollusca: freshwater mussel
3. Annelida: earthworm
4. Arthropoda: crayfish
5. Arthropoda: grasshopper
6. Echinodermata: sea star
7. Amphibia: frog
8. Mammalia: pig