

BIOLOGY 1313 GENERAL ZOOLOGY
BIOLOGY 1113 ZOOLOGY LAB
SRSU Syllabus and Course Information
Spring 2020

Instructor: Barbara Scown
Alpine High School
Class time: Mon-Fri 1:02-1:51 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 lab sessions on 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.

<p>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.</p>
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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	This week in LAB
1	Jan 13-	Ch 1 Zoology: The Evolutionary & Ecological Perspective	**NO LABS WEEK 1**
	Jan 15	Ch 7 Animal Classification	
2	Jan 16-	The Chemistry of Life	Ch 1 Lab Skills; Ch 2 Cells & Tissues
	Jan 21-24	Ch 2 Cells, Tissues, Organs, etc.	
3	Jan 28-31	Ch 3 Cell Division (Mitosis); Ch 3 Sex Cell Formation(Meiosis)	Ch 4 Animal-like Protists
	Feb 03	Test #1	
4	Feb 04-07	Ch 3 Inheritance (DNA Structure & Protein Synthesis)	Ch 5 Porifera; Ch 6 Cnidaria
	Feb 10- 13	Cellular Respiration	
5	Feb 17-	Ch 4 Evolution: History & Evidence	Ch 7 Platyhelminthes; <i>Start Planarian Lab Project</i>
	Feb 19	Ch 5 Evolution: Natural Selection	
6	Feb 23-	Ch 5, cont.	Lab Practical #1
	Feb 28	Test #2	
7	March 02-	Ch 29 Reproduction & Development (Embryogenesis)	Ch 8 Mollusca
	March 05	Development (Embryogenesis) cont.	
8	March 16	Ch 9 Poriferans	Ch 9 Annelida; Ch 10 Nematoda
	March 18	Ch 9 Cnidarians	
9	March 19	Ch 10 Platyhelminthes	Ch 11 Arthropoda & Ch 12 Echinodermata
	March 24	Test #3	
10	March 25-	Ch 11 Mollusks	Lab Practical #2
	March 30	Ch 12 Annelids; Ch 13 Nematodes	
11	April 06-	Ch 14 Intro to Arthropods	Ch 13 Chordata; Ch 14 Actinopterygii
	April 09	Ch 15 Hexapods (Insects)	
12	April 13-	Ch 17 Chordates	Ch 15 Amphibia; Ch 16 Reptilia; <i>Planarian Report due Fri., April 17</i>
	April 15	Ch 17 Chordates, cont.	

13	April 16	Test #4	Ch 17 Aves;
	April 17	Ch 18 Fishes	
14	April 21-	Ch 19/20 Amphibians/Reptiles	Ch 18 Mammalia
	April 23	Amphibians/Reptiles cont	
	April 27-30	Ch 21/22 Aves/Mammalia	Lab Practical #3
16	FINAL EXAMS May 5 (Time TBA)		

LECTURE GRADE:

Comprehension Tests (4 @ 100 pts) 400

Final lecture exam 150 (comprehensive)

TOTAL 550 points

LAB GRADE will be based on a total of 200 possible points. There will be three exams, each worth a maximum of 40 points. There will be five quizzes, worth 10 points each. There will be one written lab report worth 30 points.

Lab Report: This assignment will be submitted via blackboard and checked with plagiarism detection software. If you submit work that is not your own, you will receive an F for the lab, and possibly face disciplinary action. Zero tolerance.

Lab Etiquette: Please observe the following rules during the lab.

1. Attend lab. Pay attention. Do your assignments.
2. When in doubt, ASK. This guideline applies to lab protocol, quiz or exam questions, assignments.
3. Please be on time. Quizzes will be given at the beginning of each lab and cannot be made up if you are absent or late.
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. Osteichthyes: perch
8. Mammalia: rat

