

ZOOL 1110 PRINCIPLES OF ZOOLOGY: COURSE SYLLABUS

Lecture Time: 10:30-11:20 AM (M-W-F): **Location:** Rm 130 Lind Lecture (LL)

Laboratory Location: 429 SL

Instructor: Dr. Robert Okazaki

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SI: Luke Edelmayer

Office Hours: M-W-F: 9:30-10:20 AM

(or by appointment)

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Faculty Web Site: <http://faculty.weber.edu/rokazaki>

(Use Internet Explorer)

Text: Raven, Johnson, Losos, Mason & Singer. 2008. *Biology 8th Ed.* McGraw-Hill

Lab: (1) Mull & Okazaki. 2008. *Principles of Zoology Zoology 1110 Lab Manual* (Bookstore)

Objectives: Understand the four major disciplines of zoology: cell biology, genetics, evolution & ecology
Gain an awareness, appreciation, and interconnection of the four disciplines to everyday life
Learn to apply statistical analysis during data collection
Learn to read a scientific paper and how scientific ethics is ever so critical
Develop critical thinking skills and avoid memorization/regurgitation

Learning Outcomes: (1) **Levels of Organization:** All life shares an organization that is based on molecules and cells & extends to organisms and ecosystems; (2) **Metabolism & Homeostasis:** Living things obtain & use energy, & maintain homeostasis via organized chemical reactions known as metabolism; (3) **Genetics & Evolution:** Shared genetic processes & evolution by natural selection are universal features of all life; (4) **Ecological interactions:** All organisms, including humans, interact with their environment & other living organisms.

Evaluation: Total of **600 points** will be divided as follow:

(1) **Okazaki: Cell & Genetics Lecture (200 pts):** 2 semester exams (100 pts each)

(2) **Mull: Evolution & Ecology Lecture (200 pts):** 1 semester exam & final exam (100 pts each)

Exams for Dr. Okazaki will be multiple-choice in a chi-tester format. No make-up exams will be given. A student with a valid (e.g. medical) excuse will only have the scores from the tests taken to be used in the final calculation of the grade. Students missing exams without a valid excuse will be assigned 0 points.

(3) **Laboratory (200 pts):**

Lab Assignments	70 pts
Lab Notebook	30 pts
Lab Exam	100 pts

Grading: Based on the percentages of the **600** total points; e.g. $540/600 = 90\% = A-$

A: 93-100	A-: 90-92	B+: 87-89	B: 83-86	B-: 80-82	C+: 77-79
C: 73-76	C-: 70-72	D+: 67-69	D: 63-66	D-: 60-62	E: <60

Attendance: Exams will be based upon the lecture material and the reading assignments. Attendance will be crucial to ensure success in the course.

Academic Honesty: Academic misconduct will not be tolerated during the exams and will lead to 0 points. Study groups are encouraged to help stimulate an active learning process.

“Any student requiring accommodations or services due to a disability must contact Services for Student with Disabilities (SSD) in Room 181 of the Student Service Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary.”

Tentative Lecture Schedule

Week of	Topics	Chapter Readings
24 August	Science of Biology Nature of Molecules	Chapter 1 Chapter 2
31 August	Chemical Building Blocks of Life Cell Structure	Chapter 3 Chapter 4
7 September	Membranes How Cells Divide	Chapter 5 Chapter 10
14 September	Energy & Metabolism How Cells Harvest Energy	Chapter 6 Chapter 7
25 September	Midterm 1 (Chapters 1-7 & 10)	
21 September	Sexual Reproduction & Meiosis Patterns of Inheritance	Chapter 11 Chapter 12
28 September	Chromosomes, Mapping, & Meiosis- Inheritance Connection	Chapter 13
5 October	DNA: The Genetic Material Genes & How They Work	Chapter 14 Chapter 15
12 October	Control of Gene Expression	Chapter 16
15 October	Midterm 2 (Chapters 11-16)	