

Seaside High School Zoology Syllabus Fall 2015

Course Title: Zoology

Course Description: Zoology will be a survey of all the major animal phyla from Porifera to Primates. We will take a phylogenetic approach to animals, exploring characteristics that define each group, as well as adaptations that allow individuals to survive in their environment. This is a one trimester class.

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Text/Course Materials: *Biology* by Miller and Levine, Pearson, 2010, and supplementary handouts.

Course code for Google Classroom:

Common Core State Standards Learned in this Course:

Reading Informational Text:

- 11-12.RST.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.
- 11-12.RST.2 Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
- 11-12.RST.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
- 11-12.RST.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 11–12 texts and topics*.
- 11-12.RST.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.
- 11-12.RST.6 Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.
- 11-12.RST.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
- 11-12.RST.8 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
- 11-12.RST.9 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
- 11-12.RST.10 By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text complexity band independently and proficiently.

Writing: Please refer to the Oregon Department of Education Website for CCSS writing standards. They are long, but worthwhile. <http://www.ode.state.or.us/search/page/?id=3569>

Other Standards Learned in this Course:

Oregon adopted the Next Generation Science Standards in 2014. You can search the following website for Biology (life science) standards. Under the “Grades” window, select High School (9-12). Under the “Disciplinary Core Idea” window, select Life Sciences. At the bottom of the screen, you will find four documents you can download.

Briefly, NGSS standards for life sciences in high school relevant to Zoology include:

Structure and Function
Organization of Matter and Energy Flow in Organisms
Information Processing
Interdependent Relationships in Ecosystems
Cycles of Matter and Energy Transfer in Ecosystems
Ecosystems Dynamics, Functioning and Resilience
Social Interactions and Group Behavior
Inheritance of Traits
Variation of Traits
Evidence of Common Ancestry and Diversity
Natural Selection
Adaptation
Biodiversity and Humans

NGSS searchable website: <http://www.nextgenscience.org/search-standards-dci>

Grading Policies:

Students pass Biology by participation and turning in all work which is graded on a point scale. Letter grades are based on the following:

| | | |
|---|---------|--|
| A | 90-100% | Approximate point values for assignments in Zoology: |
| B | 80-89% | • In-Class Assignments (10-20 points) |
| C | 70-79% | • Homework (5-10 points) |
| D | 60-69% | • Lab Reports (Introduction, Methods, Results, Discussion) (25-50 pts) |
| F | <60% | • Quizzes (10-20 pts) |

You have the opportunity to earn college credit for Biology 101 through Western Oregon University and a program called Willamette Promise!

You will need your SSID number. Register here: <http://www.wesd.org/domain/34>

Classroom Expectations:

| Be Safe | Be Respectful | Be Responsible |
|--|--|---|
| <ul style="list-style-type: none"> Follow Lab Safety Instructions carefully. Wear PPE when appropriate (goggles, gloves) No food or drink other than water. Pass requested items hand to hand, or place on a table or counter. Please do not throw anything. | <ul style="list-style-type: none"> Participate fully in class by listening, asking questions, & contributing to the discussion. Electronics are allowed as a tool, but must be removed if they become a distraction. Be kind to your classmates. Get my attention and ask questions when you don't understand. | <ul style="list-style-type: none"> Bring the required materials to class every day at the beginning of class and be ready to work. Do the work expected of you. Ask questions when you are curious. Ask questions when you do not understand. <p>Required Materials:</p> <ol style="list-style-type: none"> Pencil Colored pencils Spiral Notebook Folder Index of cards for review of animal species |

Important Due Dates: Weekly turn-in dates for **in-class work** and **homework** contained in your spiral notebooks will vary by period. Record that day of the week for your class here: _____

Homework will be assigned Wednesday at the end of class and will be due the following Wednesday. You and a partner will be responsible to lead a class discussion over homework in a **Student-led Seminar**.

Wednesday will include a short, cumulative quiz over material.

Major Projects:

1 Lab write-up that includes quantitative data that can be graphed
1 group presentation plus individual report on a human impact on the environment plus solutions (for example, global warming, endangered species, pollution, localized environmental threats)

Field Trips:

Weather permitting

1. Visit at Low Tide to Haystack Rock Awareness Program

Monday, September 28, Leave: 6:30 a.m. from SHS, returning to school at

10:30 **WE NEED PARENT CHAPERONES, PLEASE! 1 adult : 8 students**

2. Amphibian Survey, October 16th, fourth and fifth period

3. Mammal Survey, November 10th and 13th, fourth and fifth period

4. Fish Survey, November 20th, fourth and fifth period

Course Calendar:

Weeks 1: Introduction to Zoology, the evolution of life and animals, and scientific classification
 Week 2-3: Porifera, cnidaria, mollusks and annelids
 Week 4: Marine and Terrestrial Arthropods, Echinoderms
 Week 5: Start vertebrates: Fish
 Week 6: Amphibians
 Week 7: Reptiles
 Week 8-9: Birds
 Weeks 10-11: Mammals including primates
 Week 12: Fish, focus on salmon