

+ Biology Syllabus



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Course Website:
<http://scienceasaverb.yolasite.com/>

COURSE OVERVIEW

Welcome! Biology is an excitingly interactive science course that will help us to understand more about our natural world by observations and working together. This is a two-semester lab science course. We will study the connection between living things and their environment in addition to the special features that allow these organisms to survive in their environment. We will also explore how we as humans affect these organisms and their habitats.

This course requires student participation and involvement. It is a STEM (Science, Technology, Engineering, and Math) inquiry course with project-based learning, evidence-based writing, complex texts, and student-to-student discussion. We will use interactive notebooks, lectures, art, modeling, films, labs and other activities. Another component of this class will be relating multicultural topics to science in terms of discussing inequalities experienced by underrepresented groups throughout the history of science. We will unpack these inequalities along with their meaning and effects.

We will cover six major units of biology including ecosystems and ecology, nutrient cycles, energy flow through a biological system, organism structure/function, genetics, and evolution. Each unit will have projects, labs, and evidence-based writing associated with them, which will serve as major components in creating student-owned learning.

LEARNING OUTCOMES

1. Illustrate the relationships among living things and their environments, and design a solution for how humans can reduce their effect on these environments.
2. Model the flow of nutrients and energy through a biological system.
3. Represent the relationships between the characteristics, structures, and functions of organisms.
4. Communicate scientific information that multiple lines of empirical evidence support common ancestry and biological evolution.
5. Construct an explanation for how organisms change through evolution and how humans affect evolution.
6. Develop and use the skills needed for scientific inquiry and discourse.
7. Understand and deconstruct inequalities in science with respect to race, gender, and other demographics.

STUDENT/TEACHER EXPECTATIONS FOR PERSONAL GREATNESS (created by students and posted on course website)

COURSE POLICIES

1. **Cheating and plagiarism** will not be tolerated and will result in a zero for that assignment. In addition, parents and deans will be contacted.
2. Assignments are due at the **beginning** of class. Be sure to complete each assignment before the start of class and be ready to turn it in when you get to class.
3. If you are **absent** from a class, it is **your responsibility** to get caught up. Come meet with me so that I can help you with what was missed. You can always stay up to date with assignments and materials on our class website: <http://scienceasaverb.yolasite.com>
4. In order to better prepare our graduates for the strict deadlines and realities of college, I will not accept any assignment after the due date for full credit.
 - An assignment turned in within 24 hours of the class period it was due will be dropped 11 points on a 100 point scale (or one letter grade).
 - An assignment turned in within 48 hours will be dropped 21 points (or 2 letter grades) and after 48 hours, the assignment will receive a 0.
5. **Excused Absences:** Students will be allowed to make up work, within the same number of days they were absent. **Tests** must be made up within one week of the absence. If there is a protracted illness that makes this difficult, the student or parent needs to contact teachers to set a date for assignments to be due.
6. **Unexcused Absences:** If a student misses a class period and the absence is unexcused, the student will receive a zero for any assignments missed.
7. **Revision of Work:** Students who turn assignments in **on time** are allowed to revise them based on the teacher feedback. Students are allowed **three days** from the day the assignment is returned to revise an assignment and turn it in for a higher grade. I believe that there is more value in revision than in throwing away a paper that is not very good. **Assignments that are turned in after the due date are not allowed to be revised.**
8. **Tardiness** to class is disruptive to the learning process and **does not reflect excellence.** Tardies will be tracked and reported to deans.
9. **Electronics** are not to be used in the classroom unless other circumstances are needed (discuss this with me) or if the instructor directs the students to use them.
10. **Remember to ROAR! (Respect, On-task, Attitude, Responsible)**
11. I am always here to help. If you find yourself falling behind or are unsure about a topic, please come meet with me. **We only succeed if we work together.**

GRADING

- Grades will be posted on Skyward. Please stay up to date with your Skyward account as teachers do make mistakes!
- TMP Grading Scale:
 - A(92.5-100); A-(89.5-92.4)
 - B+(87.5-89.4); B(82.5-87.4); B-(79.5-82.4)
 - C+(77.5-79.4); C(72.5-77.4); C-(69.5-72.4)
 - D+(67.5-69.4); D(62.5-67.4); D-(59.4-62.4)
 - F(59.4 and below)
- Grades for each assignment have different weights as follows:

SEMESTER GRADE		OVERALL GRADE	
Assessments:	35%	Semester Grade (80%) + Final Exam Grade (20%)	
Lab/Projects:	35%		
Homework/Classwork:	15%		
Evidence-Based Writing:	15%		

TENTATIVE SCHEDULE

This schedule is meant to serve as an outline for the fall term. It can and will change based on the pacing of the course. Always look at our course calendar for the most accurate scheduling. Spring term schedule will be given in January.

Week	Topics
1	<ul style="list-style-type: none"> ▪ Introductions ▪ Course policies ▪ Introduction to inquiry and the nature of science
2	<ul style="list-style-type: none"> ▪ Interactive Notebook (INB) setup ▪ The Process of being in a POGIL group ▪ Ecological Relationships
3	<ul style="list-style-type: none"> ▪ Ecological Relationships ▪ Biomes
4	<ul style="list-style-type: none"> ▪ Biomes ▪ Succession
5	<ul style="list-style-type: none"> ▪ Population Distribution
6	<ul style="list-style-type: none"> ▪ Population Growth
7	<ul style="list-style-type: none"> ▪ Biome Projects
8	<ul style="list-style-type: none"> ▪ Nutrient Cycles ▪ Water Cycle
9	<ul style="list-style-type: none"> ▪ Carbon Cycle ▪ Nitrogen Cycle
10	<ul style="list-style-type: none"> ▪ Water Biochemistry ▪ Energy Cycles
11	<ul style="list-style-type: none"> ▪ Transport in Cells
12	<ul style="list-style-type: none"> ▪ Energy Transfer
13	<ul style="list-style-type: none"> ▪ Photosynthesis and respiration-a coupled reaction
14	<ul style="list-style-type: none"> ▪ Photosynthesis and respiration-a coupled reaction
15	<ul style="list-style-type: none"> ▪ Photosynthesis and respiration-a coupled reaction
16	<ul style="list-style-type: none"> ▪ Ecological Pyramids and Food Webs ▪ Final exam review

“I have read this syllabus and understand the expectations and policies described.”

Student printed name _____

Student signature _____ Date: _____

Parent/Guardian signature _____ Date: _____

