

BIOLOGY HONORS Course Expectations

Course Scope:

This one-year course is designed to integrate science and engineering practices, crosscutting concepts, and core ideas related to biology. This course is designated as honors level by the accelerated instructional pacing and depth of content. Students enrolled in honors courses are expected to work more independently and complete more in-depth scientific investigations. The topics covered in Biology Honors include Structures and Function, Matter and Energy in Organisms and Ecosystems, Interdependent Relationships in Ecosystems, Inheritance and Variation of Traits, Natural Selection and Evolution, and Engineering Design. Demonstrations and lab experiences that employ proper safety techniques are essential to this course. Instructional practices incorporate integration of diversity awareness including appreciation of all cultures and their important contributions to society. The appropriate use of technology is an integral part of this course. This course fulfills one of the science credits required for high school graduation and qualifies as a laboratory science for college entrance.

Course Goals:

1. To demonstrate an understanding of the complex interactions within ecosystems using mathematical representations and argumentation.
2. To identify the impacts of human activity on the environment and to engineer solutions mitigating any adverse effects.
3. To develop models and use mathematical representations illustrating how matter and energy are cycled within an ecosystem through the processes of photosynthesis and respiration.
4. To demonstrate an understanding of how DNA determines the essential functions of proteins and codes for traits that are passed onto offspring.
5. To use a model to illustrate the roles of cellular division and differentiation in the growth and development of organisms.
6. To describe multiple sources of genetic variation and apply statistical methods to explain patterns of expressed traits in populations.
7. To construct an explanation of how multiple lines of scientific evidence support common ancestry and the role of natural selection in biological evolution.
To evaluate how natural selection and environmental conditions cause the numerical distribution of traits in a population to change over time and may result in the emergence and/or extinction of species.
8. To use evidence to evaluate how group behavior influences the survival and reproductive success of individuals and species.
9. To develop an understanding of how the hierarchical organization of interacting systems perform specific functions which maintain homeostasis through feedback mechanisms.

Topic Overview

Ecosystem Dynamics and Interactions

Population Growth
Ecosystem Structure and Resilience
Biodiversity

Ecological Succession
Human Impact
Engineering Solutions to Change

Matter and Energy in Ecosystems

Photosynthesis
Respiration
Trophic Energy Flow

Macromolecule Biochemistry
Basic Chemistry
Biogeochemical Cycles

DNA and Heredity

Structure and Function of DNA
Protein Synthesis

Cell Structure and Reproduction
Gene Probability and Expression

Evolution and Natural Selection

Sources of Evidence
Evolutionary Relationships
Socialization within Species

Organism Change and Adaptation
Speciation and Extinction

Homeostasis and Interacting Systems

Body Systems Interactions
Feedback Mechanisms

Environmental Stimuli
Effects of Change on Organisms

Textbook

The online textbook referenced below is to serve as a supplement to the CCSD Biology Honors curriculum.
cK12 FlexBook Textbook: CCSD Biology (2015)

Link to Resource:

<http://www.ck12.org/user%3AZW1hcmNvbmlAaW50ZXJhY3QuY2NzZC5uZXQ./book/CCSD-Biology>

Grading

The following CCSD scales will be used to report student grades.

A	90 - 100%	Excellent	Citizenship
B	80 - 89%	Above Average	O - Outstanding
C	70 - 79%	Average	S - Satisfactory
D	60 - 69%	Below Average	N - Needs Improvement
F	Below 60 %	Failing	U - Unsatisfactory

Notebook / Printed Materials

Students will be supplied with a spiral-bound notebook each semester and all the printed pages required for the notebook. **The cost of the notebook for each semester will be \$2.00. Each student will be asked to bring in one ream of computer paper.**

Course Information

A. Grade Calculations –

Quarter Grades will be calculated based on the accumulations of points from the following:

Homework
Notebook and Classwork
Tests and Quizzes

Semester Grade: (Quarter 1 or 3) = 40% + (Quarter 2 or 4) = 40% + **Final Exam = 20%**

B. Testing - Students will be tested on notes, laboratories, activities, and reading assignments. Tests will be given at the end of each unit of study. The tests will include objective questions, essay questions, and/or practical skills situations. Students can expect quizzes which encourages them to remain current.

C. Assignments and Homework - A student may be assigned homework every day that the class meets. Homework could be given verbally and written on the board. **The teacher website will be an important resource for homework and class information.** Assignments not completed during class become additional homework and are due the next class. Homework will be randomly checked and graded on or after the due date.

D. Make-up Work - Students have three days per absence for an excused absence to make up work. It is the responsibility of the student to obtain make-up work from the appropriate source in the classroom, from another student, at the website, or from the teacher. Students must obtain missed interactive notebook pages before or after school. It is the student's responsibility to get their make-up work immediately upon their return. Tests or quizzes missed must be made up before or after school. Students should get a note turned into the attendance office within 3 days of the absence.

E. Late Work – **Late work will not be accepted for daily homework assignments or checks (low value assignments) if the absence is unexcused or if an assignment is not turned in on the due date. Projects, laboratory reports, unit notebook checks and presentations (high value assignments) will be accepted ONLY one block day late for 50% of the completed work.**

F. Extra Homework Points - These points may be earned occasionally only by participating in selected activities assigned and approved at the instructor's discretion.

G. Interactive Notebooks and Supplies – Students will be supplied with a spiral interactive notebook each semester for a cost of \$2.00. The interactive notebook will be their principal academic tool for the year. Guidelines for this interactive notebook will be provided. **The interactive notebook must be brought to class each day.** In addition, students will need the following each day: #2 pencils, their PVHS student handbook, a glue stick, colored pencils, three different colored highlighters, a metric ruler, and scissors. Please refer to the supply list provided on the teacher website for more details.

H. Tutoring- Your teacher will be available to help you during the week before or after school. In addition, your teacher or another Biology teacher will be available several days after school for tutoring. Whenever possible, schedule an appointment with your teacher to allow for more time and better individualized assistance.

I. Laboratory Activities – This is a laboratory based class and attendance is extremely important for a student’s success. Some absences are unavoidable. Students are allowed to make up a lab if the equipment or materials are still available. There are some labs that students cannot make up. They will be required to do an alternate assignment. Sometimes there is no substitute for the lab experience itself. Students are held accountable for the experience gained in each lab. This is not usually detrimental to a student’s grade unless they have a chronic attendance problem. Proper behavior is expected before and during laboratory activities for participation in the activity. Off task or unsafe behavior will result in a grade of “0” for the lab.

J. Tardies - It is extremely important for students to realize that punctuality is an important component of classroom behavior. A student is considered tardy if they are not in their seat when the tardy bell rings. **Tardy students will not receive any points awarded in the first few minutes of class during “quick” grades.**

K. Electronic Devices - Cell phones and other electronic devices are a *serious distraction* to the learning environment. Therefore, electronic device use in the classroom **will not be tolerated**. Students will be required to power down their cell phones and to place them in a clear container on their desk. The phone will be in plain view of both the teacher and student. In the case of an emergency, students can easily access their phones. Students who refuse to follow the classroom cell phone policy will be subject to consequences by the Dean’s office. If getting in contact with your child is urgent, please call the office and they will get in contact with your student. Please make sure your student knows that their cell phone must be **turned off and in the container provided** during class time.

L. Test Corrections – Department unit tests can be reviewed before or after school with the teacher key and the student’s responses. Students are allowed to take notes on concepts missed. Cell phones will not be allowed during a test review by the student. The teacher will be available to remediate any missed concepts as the student reviews their test. It is highly recommended that students make test corrections each quarter.

General Behavior Guidelines

1. To request permission to leave your seat or to speak, **raise your hand to be recognized by your instructor**.
2. Disruptive class behavior of any nature is not tolerated. Violators will be disciplined accordingly. Consult your Student Handbook when in doubt about what constitutes proper behavior.
3. **Cheating of any nature will earn you a zero point grade on the assignment.** No make-up work or extra credit will be assigned to replace points lost by cheating.
4. You must follow all directions given by the instructor. If you do not understand the directions, raise your hand for assistance, **but make sure you have read and understand the directions first.**
5. Leave your area and classroom clean. Chairs must be returned to their proper place. Immediately report any vandalism or accident to the instructor.

Please contact the teacher via email (not telephone) through the paloverde.org website.

COURSE TITLE: Biology/Biology Honors
(Alfieri, Franco, Steinline, Waldman)

Dear Parents, Guardians, and Students,

Please sign this form as an indication that you have read and understand the Course Expectations and Safety Rules.

I HAVE READ AND UNDERSTAND THE ONLINE COURSE EXPECTATIONS, MR FRANCO'S EXPECTATION ADDENDUM, AND THE PALO VERDE LAB SAFETY RULES ON MY TEACHER'S WEBSITE.

Print Last Name: _____ First Name: _____ Period _____

Student Signature: _____ Date _____

Print Parent/Guardian Last Name: _____ First Name: _____

Parent/Guardian Signature: _____ Date _____

Parent/Guardian Contact information:

Email address: _____

Phone Numbers: Cell _____

Home _____

Work _____