

PALO VERDE HIGH SCHOOL  
COURSE EXPECTATIONS

COURSE TITLE: Biology I Honors

INSTRUCTORS: D. Steinline, F. Franco, C. Waldman

**I. COURSE DESCRIPTION**

This one-year course is a rigorous presentation of introductory biological concepts designed for the serious, academically-oriented student. Emphasis is placed on developing critical-thinking skills, research skills, and laboratory techniques. Independent study is an integral part of the course requirements. This course fulfills one of the three high school graduation requirements for science and college entrance requirements for laboratory science.

**II. PREREQUISITES:**

1. 9th Grade Standing
2. Approval of Counselor

**III. PRE-ASSESSMENTS:**

Each student will take a pretest of a diagnostic nature to determine:

1. Proficiencies and Deficiencies in Science Skills
2. Reading Level
3. Basic Knowledge of Course Content

**IV. POST-ASSESSMENT:**

Each student will take a post-test of a diagnostic nature to determine:

1. Individual Growth in Course Content.

**V. POSSIBLE CAREERS**

Physician's Assistant	Coroner	Nurse
Wildlife Technician	Pharmacist	Dietitian
Veterinarian	Marine Biologist	Genetic Counselor
Research Scientist	Paleontologist	Pediatrician
Teacher	Horticulturist	Biotechnology Engineer

**VI. COURSE OUTCOMES**

1. When presented with a written problem to solve, the student will apply the steps of the Scientific Method in the determination of a solution.
2. Using a variety of laboratory techniques, the student will conduct experiments that will be summarized in written departmental laboratory format.
3. Given a list of expected laboratory safety procedures, students will perform experiments without accident or injury.
4. When measuring, collecting data, or performing calculations, students will report results in SI (Metric) units for all measurements.
5. Given a microscopic specimen, students will focus at maximum resolution and magnification to locate and identify an organism's features.
6. Students will state the tenants of the modern cell theory and describe the contributions made by scientists in its development, and then express this content in a written modality identified by the instructor.
7. When applicable in a unit, students will match a department list of scientists with their major scientific contribution by teacher selected oral and written methods.
8. When provided with a cell model, the student must identify and describe the cellular structures and their corresponding functions.
9. Using examples of decomposers, consumers, and producers, students will trace the flow of energy through an ecosystem by designing various ecological pyramids.
10. Through lecture and research, students will be able to identify classify, contrast, and compare organisms of the six kingdoms by written and illustrative methods selected by the instructor.
11. After verbal instruction and model demonstration, students will diagram and express in written form the developments during each stage of mitosis and meiosis.
12. When provided with examples and models, the students will be able to construct a visible representation of an atom's structure.
13. Students will be able to give examples of the 5 organic compounds and list each ones function and elemental composition by a written evaluation.
14. Students will correctly complete a dihybrid cross to demonstrate their understanding of the laws, terminology, and patterns of inheritance.
15. When provided with computer software and accessory equipment, students will collect, display, and analyze data while participating in interactive computer laboratories.
16. Students will explore current events and ethical issues relating to Biology when determined applicable by the instructor in mediated group discussion, oral presentations, and debates.

## **VII. LESSON TOPICS AND TIME SCHEDULE (SEQUENTIAL)**

<u>Lessons</u>	<u>Periods</u>
1. Introduction, Assessment, Nature of Science	13
2. Chemistry of Life	8
3. Biochemistry	10
4. Cell Structure and Function	10
<b>END of 1<sup>st</sup> Quarter</b>	
5. Homeostasis and Transport	7
6. Cell Energy (Photosynthesis & Respiration)	9
7. Mitosis and Meiosis	10
8. DNA: Structure, Replication, and Protein Synthesis	17
<b>END of 2<sup>nd</sup> Quarter</b>	

9. Molecular Genetics	10
10. Laws of Genetics (Heredity)	10
11. Evolution and Diversity	12
12. Human Biology	12

**END of 3<sup>rd</sup> Quarter**

13. Taxonomy	10
14. Ecology	12
13. Viruses, Prokaryotes, Protists	12
14. Plants and Fungi	10

**END of 4<sup>th</sup> Quarter**

**VIII. MAJOR TEXT**

- A. Individually Assigned Text – Each student will receive a copy of *Modern Biology* (Towle)
- B. Care of the Text - The student will be responsible for care of this book for the entire school year. If the book is lost or stolen, the replacement cost will be \$69.95. The student will pay a portion of the total cost if the book needs repair.

**IX. COURSE INFORMATION**

A. Testing - Students will be tested on notes, laboratory activities, reading assignments, completed units, and after special areas of study. Tests will be given at the end of each unit of study. The tests will include objective questions, essay questions, and/or proficiency situations. Alternate forms of assessment such as project books or portfolios may be used to determine developmental progress. Students can expect quizzes, announced or unannounced, which encourage students to remain current in the subject.

B. Assignments and Homework - A student may be assigned homework everyday. Homework will be given verbally, written on the board, and/or kept in a log notebook. Assignments not completed during class become additional homework and are due the next day. All assignments may be randomly checked and graded or may be collected on the due date. All assignments must be kept in the Biology notebook.

C. Make-up - Students have three days because of 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, another student, website, or from the teacher. Late work is not accepted. If you are not present during a laboratory exercise, your make up may consist of an alternate assignment to be completed at home.

D. Extra Credit and Enrichment - Extra credit points may be earned only by participating in selected activities assigned and approved by the instructor at his/her discretion. It is the responsibility of the student to obtain guidelines and time lines from the instructor. The teacher may provide enrichment materials for the exceptional student above and below average grade level.

E. Notebook and Supplies - Students are required to maintain a separate, neatly organized, three ring binder with the following six sections: **HANDOUTS, NOTES, HOMEWORK, and LABORATORIES**. Students are required to bring to class each day: pens, #2 pencils, lined notebook paper, and their Student Handbook.

F. Extra Help Opportunities - Your teacher will be available to help you during the week at specific times. Whenever possible, schedule an appointment with your teacher, a day in advance, to allow for more time and better individualized assistance.

G. Laboratory Activities - Read and study all laboratory activities to familiarize yourself with the purpose and procedures of the exercise. You must learn and follow all safety rules. ANY SAFETY VIOLATION and/or LACK OF PREPARATION during laboratory activities may result in an "F" grade for the activity without make-up privileges. You are NOT to wear contact lenses on laboratory days. Hair must be tied back, loose sleeves must be rolled back, and feet and toes must be fully covered by shoes. No open toed shoes. Before the end of your class, materials and equipment must be returned to their proper place. Working areas and equipment must be cleaned. Do not dispose of any chemicals or any items used in the laboratory exercise in sinks or in trashcans without receiving directions from your instructor.

H. 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 the procedures first.**
5. Leave your area and classroom clean. Chairs must be returned to their proper place. You must report immediately any vandalism to the instructor.

I. Attendance and Tardies-

1. Excessive absences may result in loss of class credit. Refer to your Student Handbook for further information.
2. Unexcused tardies will be documented. As soon as you arrive late, you must sign the tardy sheet before you sit down. You will be considered tardy if you are not in your seat when the bell rings. The consequences of multiple tardies will be as described in the Student Handbook.

## **X. ACROSS THE CURRICULUM ACTIVITIES**

A. Organization and Class Preparation - The teacher will advise students during the first week of school regarding the importance of being prepared daily for class. You are expected to actively participate in all class activities. Taking notes, paying attention, answering questions, and class preparation are important to your academic success. It will be required that the students have all the items listed in IX. E. above each day when class begins.

B. Writing- Students will put into practice writing techniques that they have developed in their English classes. The teacher will include writing assignments and essay questions on exams, which will be part of the exam grade. Students may write a library report during the course of the year.

C. Reading/Learning Strategies/Study Skills - A variety of techniques, such as two column

notes, graphic organizers, mind maps, etc., will be modeled and used extensively. Students may use multi-pass to preview textbook chapters.

D. Technology - The school-wide multimedia management system, computer labs, PC accessories, and the Internet will be used and/or taught to students throughout the year.

E. Problem-Solving Strategies - The process of the scientific method of inquiry will be used as a guideline for solving scientific, as well as everyday, problems.

## **XI. EVALUATION**

A. Criteria for Arriving at Student Grades - The students grade will be based on the cumulative number of points earned on examinations, class participation, homework, laboratory exercises, research, class assignments, and the notebook.

B. Explanation of Student Grades:

A	90% - 100%	Excellent
B	80% - 89%	Above Average
C	70% - 79%	Average
D	60% - 69%	Below Average
F	Below 60 %	Failing
IN		Incomplete
NG		No Grade

C. Grade Reports - Grades will be provided to students on a regular basis to notify students of their progress. Specifically, the teacher will tell the student the current grade in percentage terms. The teacher will also let the student know what he/she could do to improve.

1. A progress report will be received mid way through each term.
2. Final grades will be reported at the end of term 1 and term 2.

D. Citizenship

1. U - Unsatisfactory (parent will have been notified)
2. S – Satisfactory
3. O – Outstanding
4. N- Needs Improvement

## **Mr. Franco's Expectation Addendum for Parents/Guardians:**

**TARDIES:** It is extremely important for students to realize that punctuality is an important component of classroom behavior. I do not try to decide who was running into the class as the bell rings. That's why **a student is considered tardy if they are not in their seat** when the tardy bell rings. In addition to enforcing the Palo Verde tardy policy, there are also some immediate consequences for tardiness in class. Homework is considered late for the day (half credit), and a student will not be allowed pass privileges during class (If it is an emergency, the student will have to serve 20 minutes of detention.) These consequences **can become** detrimental to a student's grade if they have a chronic tardy problem.

**Absences:** This is a Laboratory oriented class and attendance is extremely important for a student's success. I understand some absences are unavoidable, and I try to allow student's to make up all absence work, but there are some labs that students can't make up. Sometimes there is no substitute for the lab experience itself, and since this is a laboratory-based class, students are held accountable for the experience gained in each lab. If the equipment or materials are still available for the student upon their return from an absence then they can make up the lab after school with me, if not then they will have to miss the points for that lab experience. Once again this is not usually detrimental to a student's grade unless they have a chronic attendance problem.

**Make-Up Work:** Students must see me before or after school to get work missed during absences. It is the student's responsibility to get their absence work from me immediately on their return. They will have two school days per absence to return all work to me. Tests or quizzes missed must be made up before or after school. Unexcused absences will count against make-up work. So make sure your student gets a note turned into the office within 3 days of the absence.

**Electronic Devices:** As a parent I understand the security that providing your student with a cell phone provides. However, as a teacher cell phones and other electronic devices are a huge distraction to the learning environment. Therefore, please discuss with your student that the use of electronic devices in the classroom will not be tolerated. Also, please understand that to avoid discussion of the topic during class time the offending device will be confiscated and **turned in to 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. If an electronic device must be brought to school, make sure your student knows it should be turned off and out of sight during class time.

Please contact me via email at **[francfm@interact.ccsd.net](mailto:francfm@interact.ccsd.net)**

**Turn This Page In**

Due: \_\_\_\_\_

Please share and discuss the above Course Expectations with your Parents/Guardian. Return this page, properly completed and signed by all parties, on the date requested by your teacher.

COURSE TITLE: Biology I Honors

TEACHER: \_\_\_\_\_

**I HAVE READ AND UNDERSTAND THE ABOVE COURSE EXPECTATIONS.**

Print Student Name: \_\_\_\_\_

Student Signature: \_\_\_\_\_ Date \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_ Date \_\_\_\_\_