**AP Biology**



**2015-2016**

**Teacher:** Elaine Hardman

**Email:** eva.hardman@canyonsdistrict.org

**Class Website:** ehardmanapbio.weebly.com

 http://canyons.instructure.com

**Office hours**: 7:10- 7:40 Monday, Wednesday, Thursday & Friday mornings.

**Course Description:[[1]](#footnote-1)**

APBiology is a rigorous study of the diversity and processes of life. It is a course equivalent to a college-level biology course both in quality and sophistication. In order to learn biology and understand it as a science, students will think as scientists and engage in the processes of Science. Since there is a great wealth of material to cover, there are four “Big Ideas” that will be focused on to help the student understand this course in its entirety.

1. The process of evolution drives the diversity and unity of life.
2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.
3. Living systems store, retrieve, transmit and respond to information essential to life processes.
4. Biological systems interact, and these systems and their interactions possess complex properties.

The course will begin with a survey of the themes of biology, life, and scientific inquiry. We will focus on molecules and cells, reproduction and DNA, genetics, evolution, and genetic engineering. Students will engage in understanding the complex nature of biology through in-depth exploration of organisms from all the kingdoms.

**Course Objectives:** Students in this course will…

* Engage in understanding the complex nature of biological sciences.
* Construct knowledge and skills that are relevant to current and future interests
* Develop laboratory, research, reading, writing and speaking skills
* Think and work critically, creatively, and cooperatively
* Communicate biological knowledge in a variety of ways
* Take the AP Biology Examination in May.

**Textbook**: Campbell & Reece Biology *8th Edition* , AP Biology Lab Manual and a variety of reading from other publications and sources.

**Grading Policy:** Each piece of work that is assigned will be given a certain number of points. Your grade for each quarter consists of your cumulative points divided by the total number of points available. Work that will be evaluated and given a point score falls into four categories:

1. Tests: end of unit tests - 60%
2. Labs: Lab participation and lab reports – 15%
3. Coursework: Class work—notes, homework, reflective writing assignments, readings, and research – 15%
4. Quizzes: formative assessments – 10%

**Collaboration and consultation:**

* If you need extra work time, to make up a test, quiz, lab, hand in make-up work or if you have any questions about missing assignments etc., due to absences, you will need to see me during office hours 7:10 A.M. - 7:40 A.M., Mondays, Wednesdays, Thursdays, or Fridays in my room #1123. I will not use class time to address individual issues.

**Expectations:**

* Work must be handed in on time. All work for the unit is handed in the day of the unit test. Late work will receive a reduction in score.
* Students with excused absences are responsible for getting missed work, which may require coming in during office hours.
* Alta High School attendance policy will be enforced in this class. (see; Student Handbook)
* Be focused on your learning.
* Respect your classmates, yourself and me.
* Keep the room clean.
* Be excited and turn on your brain. When you invest time, energy, quality and curiosity into your work and learning you will reap great benefits.

**Organization and Success in AP Biology:**

One of the most difficult tasks that many students face is that of organizing their materials. I expect that students will take excellent notes, organize their work and turn in work on time. To help students meet these expectations, the following will occur:

* For each unit students will receive a Learning objective sheet and work that supports the listed learning objectives.
* Students take notes and keep hand outs as reference throughout the year.
* Come prepared daily with homework, paper and writing utensils.
* Everything you hand in will need to go back into your notebook.
* I will return your work in a timely manner.

Finally, a few words about your other keys to success in AP Biology. I cannot stress enough the importance of studying in a timely manner and talking about what you are learning. In general, people remember:

* 10% of what they read
* 20% of what they hear
* 30% of what they see
* 50% of what they see and hear
* 70% *of what they talk over with others*
* 80% *of what they use and do in real life*
* 95% *of what they teach someone else to do*

**AP Biology Labs**

The lab component of AP Biology accounts for a minimum of 27 hours outside of the normal class period. All AP Biology students are expected to attend the AP labs. These Canyons District labs are taught outside the regular school day at Hillcrest High School. I will be co-teaching these labs with teachers from Hillcrest, Jordan, and Corner Canyon high schools. These labs cost an additional fee ($140.00). Half of this fee will fund in class labs and half will fund the district level labs. The fees are used for student supplies and do not pay teacher salaries. Students can pay their lab fee in the main office before or after school or during lunch. Lab fees must be paid before the first lab (see attached lab schedule). \* LAB FEES ARE NON-REFUNDABLE

**Excellent Resources**

Many resources are available online to help you master the material for AP Biology. Log in at: [www.apcentral.collegeboard.com](http://www.apcentral.collegeboard.com) click the student tab, at the top of the page. You can create a free account and have access to study materials and resources that will help you succeed in AP courses. Parents can use the parent tab.

Live with your notes and lab materials, bring up biology at the dinner table, sleep with your book under your pillow, and educate *everyone and anyone* about the amazing world of AP Biology.

**2015- 2016 Canyons District A. P. Biology Laboratory Course Schedule**

**Hillcrest High School Room S105**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Experiments | Monday 3:30 – 6:30 PM | Tuesday 3:30 – 6:30 PM | Wednesday 3:30 – 6:30 PM | Thursday 3:30 – 6:30 PM | Saturday 9:00AM - noon |
| Diffusion & Osmosis | Sept. 21 | Sept. 22 | Sept. 23 | Sept. 24 | Sept. 26 |
| Enzymes | Oct. 5 | Oct.6 | Oct.7 | Oct.8 | Oct. 10 |
| Photosynthesis | Nov.2 | Nov.3 | Nov.4 | Nov. 5 | Nov.7 |
| Cellular Respiration | Nov.16 | Nov. 17 | Nov.18 | Nov.19 | Nov. 21 |
| Bacterial Transformation | Dec. 7 | Dec.8 | Dec.9 | Dec.10 | Dec.12 |
| Gel Electrophoresis | Jan. 4 | Jan.5 | Jan.6 | Jan.7 | Jan.9 |
| AP Exam Review |  |  |  |  | April 30 @ AHS 8:00AM - Noon |
| AP National Exam | May 9,20168:00 AM |  |  |  |  |

* Cost of AP labs = $140.00\* students who attend all labs and submit the lab write ups for grading will earn .25 elective science credit on their transcript.
* Students may attend any lab session. Sessions taught earlier in the week are generally less crowded.
* The labs are first come first serve. After 40 students are in a session students will be sent away and be required to attend a different session
* If you can’t attend one or more lab sessions, please speak to the teacher at your individual school for make-up lab so you don’t lose the points
* Each lab write up is worth up to 50 Points and is required, by all students, students not attending the lab must do the make-up lab to earn these points.
* Students will automatically earn 50 Points for actually attending the lab in person, and will need to stay for the entire lab to earn the full points. These points will be counted as extra credit in the lab category of their grade. Students who do make-up labs are ineligible for these points.
* Other labs will be taught in class and will include lab work that will be ongoing, inquiry-based and student designed.
* Students are responsible for their own transportation to and from labs. Car-Pooling is strongly encouraged.

\*funding is available for students with special need

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Please sign that you have read and understand this document. Sign this page and turn it (this page only) in to Mrs. Hardman:

Student Name (print)

Student Signature

Parent name and e-mail (print)

Parent Signature

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1. The College Board AP Biology Curriculum [↑](#footnote-ref-1)