



Advanced Placement (AP) Biology Course Syllabus: 2015-2016

Linganore High School



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Course Description/Objective

AP Biology is the equivalent of a two-semester college introductory biology course normally taken by science majors during their first year of college. Students who earn a qualifying score (3, 4, 5) on the AP exam can receive up to 8 college level credits, depending on the college they attend. The prerequisites for AP Biology are **successful completion (A or B) of high school introductory biology and chemistry.**

According to the AP Biology Curriculum Framework, “Students who take the AP Biology course will develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The result will be readiness for the study of advanced topics in subsequent college courses”.

AP Biology focuses on the following 4 big ideas:

1. The process of evolution drives the diversity and unity of life.
2. Biological systems utilize free energy and molecular building blocks to grow, 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.

AP Biology incorporates the following 7 science practices:

1. The student can use representations and models to communicate scientific phenomena and solve scientific problems.
2. The student can use mathematics appropriately.
3. The students can engage in scientific questioning to extend thinking or to guide investigations within the context of the AP course.
4. The student can plan and implement data collection strategies appropriate to a particular scientific question.
5. The student can perform data analysis and evaluation of evidence.
6. The student can work with scientific explanations and theories.
7. The student is able to connect and relate knowledge across various scales, concepts and representations in and across domains.

Textbook

Hillis, Sadava, Heller, Price. Principles of Life High School Edition. 2012. Replacement cost: \$127

Course Policies and Expectations

- ☺ Because of the rigor of this course, students are expected to attend class **every day** in order to be successful.
- ☺ Students are expected to **read** required chapters in textbook prior to class discussion.
- ☺ All PowerPoint lectures will be emailed to all students each week prior to their presentation. Students should routinely check their email for lecture notes and other correspondence from the instructor.
- ☺ All assignments are due **on time**. Late work will receive a 50% reduction in value. Students receive a unit schedule including all due dates for every unit so there is never an excuse.
- ☺ As standard in college, students are expected to be present on exam days. **If a student is absent on the day of an exam, the make-up exam will be 100% short answer and essay.**
- ☺ Plagiarism, cheating, or copying other’s work will result in a failing grade for the assignment, a referral (documentation in academic record), and a phone call home to parents/guardians.
- ☺ Absolutely NO CELL PHONES are to be utilized in class! The best habit to get into in my class is to TURN OFF YOUR CELL PHONE the moment you enter my room!!!! Cell phones and texting distract you from learning and will not be tolerated.
- ☺ This class requires dedication, organization, and adequate study and reading time. You will get out of this class only what you are willing to contribute!
- ☺ Tutoring will be offered once or twice each unit, depending on the length of the unit, with the tutoring date(s) noted on the unit schedule. Students are to bring completed review guides to tutoring sessions.
- ☺ If a student has had absences of consecutive days, it would be wise to schedule a time to review the information covered during the absences.

- ☺ Due to increasing cases of allergies, asthma, and migraines, among our students, staff and faculty, please do not apply or wear perfumes, colognes or other scented products in the classroom. Also, many students have nut allergies, please never open or consume nuts in the classroom. Thank you for your compliance with these requests.
- ☺ For extra review during the year and review prior to the AP Biology Exam, it is recommended but not required that each student purchase an AP Biology review guide. Barron's (5th edition) is highly recommended (\$13.27 on amazon). Barron's makes flash cards as well (\$15.23 amazon). CliffNotes (4th edition) also produces a review guide for \$11.24. Please see me if you would like to purchase a review book but finances are holding you back!

Grading Policy

- ☺ Reading (RCQs) quizzes (given daily)
(may use handwritten reading notes for these quizzes) 10% of final grade
- ☺ ClassWork (also includes HW) 5% of final grade
- ☺ Labs 10% of final grade
- ☺ Tests 75% of final grade**

** Exams represent a major portion of the AP Biology grade and cannot be retaken, ***nor will any extra credit be given to boost an exam grade.*** As such, at the beginning of each unit students are given an exam review guide. Students are highly encouraged to work through this review guide each night ***as information is being discussed;*** not a few days prior to the exam!

Letter grades are assigned as follows:

A: 89.50% and above	Exemplary Performance
B: 79.50 – 89.49%	Skilled Performance
C: 69.50 – 79.49%	Satisfactory Performance
D: 59.50 – 69.49%	Minimally Acceptable Performance
F: 0 – 59.49%	Unacceptable Performance

Grades can be accessed online at <http://www.fcps.org>. Just follow the “**Grades Online**” link.

About the AP Exam *(taken from the AP Biology Course and Exam Description, Fall 2014)*

The AP Biology Exam consists of two sections: multiple choice and free response. Both sections include questions that assess students’ understanding of the big ideas, enduring understandings, and essential knowledge and the ways in which this understanding can be applied through the science practices. These may include questions on the following:

- the use of modeling to explain biological principles;
- the use of mathematical processes to explain concepts;
- the making of predictions and the justification of phenomena;
- the implementation of experimental design; and
- the manipulation and interpretation of data.

The exam is 3 hours long and includes both a 90-minute multiple-choice section and a 90-minute free-response section that begins with a mandatory 10-minute reading period. The multiple-choice section accounts for half of the student’s exam grade, and the free-response section accounts for the other half.

Section I, Part A, consists of 63 multiple-choice questions that represent the knowledge and science practices outlined in the AP Biology Curriculum Framework that students should understand and be able to apply. Each multiple-choice question has 4 possible answers. Part B includes 6 grid-in questions that require the integration of science and mathematical skills. For the grid-in responses, students will need to calculate the correct answer for each question and enter it in a grid in the grid-in section on their answer sheet.

In Section II, students should use the mandatory reading period to read and review the questions and begin planning their responses. This section contains two types of free-response questions (short and long), and the student will have a total of 80 minutes to complete all of the questions. There are 6 short free-response questions that should take about 6 minutes each to answer, and 2 long free-response questions that should take about 20 minutes each to answer.

Due to the increased emphasis on quantitative skills and application of mathematical methods in the questions on both sections, students will be allowed to use simple four-function calculators (with square root) on the entire exam. Students will also be supplied with a formula list as part of their testing materials.

For more detailed information about the AP Biology course:

http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2117.html

NAME: _____

Please review and sign this sheet, have your parents review and sign this sheet, and return it to me in class tomorrow!

I have read through the entire syllabus and understand I am expected to fully comply with all course policies, as reviewed here again:

- Attend class daily
- No use of scented products in the classroom and no nuts!
- READ all assigned text (remember, there will be DAILY reading comprehension quizzes)
- Hand all assignments in on time – late work receives a 50% reduction in value
- Be present on exam days – ALL MAKE UP EXAMS, regardless of the reason for absence will consist of 100% short answer and essay (standard in a college course)
- Plagiarism, cheating, or copying other’s work will result in a failing grade for the assignment, a referral (for documentation in academic record), and a phone call home to parents/guardians
- Absolutely NO cell phones or texting in class!
- Consistent dedication, organization, and study!

I fully understand the grading policy. Furthermore, I understand there will be

NO extra credit opportunities for unit exam improvement and that unit exams cannot be retaken.

I UNDERSTAND THAT I WILL HAVE TO WORK HARD TO EARN MY GRADE!



Signature of student _____

Signature of parent/guardian _____