

# **Advanced Placement Biology Syllabus**

**Course Name:** Advanced Placement Biology (AP Bio) **Teacher:** Mr. Fritz Robinett (fritz.robinett@acsgmail.net)

**Textbook:** Campbell Biology (AP Edition)(12th Edition) **Additional Text:** The Immortal Life of Henrietta Lacks

### **Course Overview**

Advanced Placement Biology is designed to offer students a solid foundation in **college level** introductory biology based on the belief that many students are ready for **college work** while still in high school. This course is aligned to the <u>College Board AP Biology Curriculum Framework</u> and is based on four Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about living organisms and biological systems. The big ideas are: **Evolution, Energy, Systems and Information**. As a **college level** course, the amount of material covered as well as the complexity of the topics will be high. An ongoing expectation, therefore, is to learn the material as it is presented and come to class each day understanding the previous day's material; there will even be times when students are expected to come to class already understanding the material before it has been worked on in class. Students must be committed to keeping up with the work. Students should be prepared for complex science texts and readings, totaling ~5-7 hours of work <u>beyond</u> school time each week. The course framework is divided into two essential components: 1) Science Practices and 2) Course Content. This is to say students will not only engage in learning new content, but they will consistently refine their understanding about how scientists conduct their work and the thinking processes that are utilized.

## **Essential Questions to Spark Student Inquiry**

Unit 1: How does chemistry determine the characteristics of life?	Unit 5: How can heritable traits be explained and quantified?
Unit 2: How do the cell structures determine life functions?	Unit 6: What makes you, you? How are genes regulated?
Unit 3: In what ways do living things manage energy and matter flow?	Unit 7: How do the mechanisms of evolution work?
Unit 4: How do cells communicate and what influence does that communication have on life?	Unit 8: How do living systems interact to create healthy ecosystems as part of Earth's biosphere?

### **Assessment**

#### **Formative**

Ongoing formative assessments to check for student learning, work completion, and class participation will be conducted on a daily basis. These formative assessments include: Process Oriented Guided Inquiry Learning activities (POGILs), pause discussions during notes, video questionnaires, weekly discussions of our common reading (*The Immortal Life of Henrietta Lacks*), and contributions to others' learning.

#### **Summative**

The expectation is that **all students** who are enrolled in AP Biology **will take the AP test on May 4th, 2026**. Upon completion of the course and AP exam, students should be able to have the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Students who earn a qualifying score (usually a "3" or higher) on the AP Biology Exam are typically eligible to receive college credit. Due to the complexity of the material and the difficulty of the test in May, students are encouraged and expected to review daily work and supplement their learning with resources provided by the instructor through Canvas.

The course consists of 8 Units of Study as outlined in the AP Biology Curriculum Framework and students should be prepared to take a summative assessment (Unit Test) at the completion of each unit. The summative assessments for each unit will consist of Multiple Choice Questions (MCQs) and Free Response Questions (FRQs). In order to prepare students for the test in May these periodic summative assessments students will not have the opportunity to do test corrections or alternative assignments. These unit tests mirror the complexity and rigor of the state test. In addition, extension questions to classroom activities, individual responses from group discussions, lab reports, group projects and the occasional short quiz will constitute the summative assessments in the course.

## **Grading**

Grading is in alignment with <u>Board of Education Policy 3400 Evaluation of Student Progress</u>

Student grades are based on a points system. The more points a student earns throughout the marking period the higher the grade. The number of possible points for an assignment is a direct indication of its weight. Broad categories of work and their associated point ranges are below:

- Major Summative Unit Tests and Projects (50-70 points)
- Minor Quizzes and Homework Assignments (10-35 points)
- Classwork (5-20 points)

Work towards a student's grade will either be submitted in person to the teacher or via Canvas for feedback. Not everything assigned and collected will count towards a grade, but students should expect that if they turn in work it will be counted toward the grade. As this course is aligned to the College Board framework and pacing, punctual completion of all assignments is essential.

Students will receive feedback via Canvas or in written or oral communication from the teacher. Review of this feedback and resubmission of any non-test assignment is possible for students who clearly communicate the need and do so in a timely fashion.

## **Attendance**

This class will adhere to the district &state requirements for attendance. Please review the student handbook with regard to attendance and tardy policies.