

AP Biology Course Syllabus 2022-2023

Instructor:

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Resources:

Campbell Biology in Focus (3rd Edition) 3rd Edition

by Lisa A. Urry (Author), Michael L. Cain (Author), Steven A. Wasserman (Author), Peter V. Minorsky (Author), Rebecca Orr (Author) (\$183.00)

Your Inner Fish: A Journey into the 3.5-Billion-Year History of the Human Body Paperback – Illustrated, January 6, 2009 (\$17.00)

Test Prep Series AP Biology for Campbell Biology Programs Paperback – January 1, 2017 (\$75.00)

Students are expected to properly maintain the condition of loaned resources.

Course Description:

The AP Biology course is equivalent to a two-semester college introductory biology course for science majors. The key concepts and related content that define the course and exam are organized around a few underlying principles called the big ideas, encompassing the core scientific principles, theories, and processes governing living organisms and biological systems. Students will also 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. Reading requirements for the course are rigorous and require a daily commitment to stay caught up in the class. Exams generally cover 3 - 4 chapters in the text and occur every 2-3 weeks, depending on the content and the number of labs associated with concepts within the unit. Laboratory activities suggested by the College Board are conducted to give the student a fair representation of a university-level Biology course. Students can take a College Board exam over the subject at the end of the school year. The student's score on the AP test determines whether or not college credit will be given.

Course Standards:

The course is structured around the enduring understanding of four big ideas described in the *AP Biology Curriculum Framework*. (For a complete list of enduring understandings and essential knowledge, see attached.) These big ideas include:

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

Outline:

The following topics will be studied this year:

- Evolution and phylogeny
- Chemical context of life
- Biochemistry
- Cell
- Cellular energy
- Cell communication
- Cell cycle
- Genetic basis of life
- Gene activity and biotechnology
- Diversity: Organism form and function
- Ecology

Reading In Content Area:

To comply with GPS science characteristics, students must read content-related materials to enhance the curriculum. Reading requirements include current articles and *Your Inner Fish: A Journey into the 3.5-Billion-Year History of the Human Body* (GPS SCSh9-Students will enhance reading in all curriculum areas by Reading in all curriculum areas and reading both informational and fictional texts in a variety of genres and modes of discourse).

Suggested Supplies: one subject spiral notebook, calculator, pen/pencils

Lab:

A large portion (at least 25%) of class time will be devoted to laboratory work. Students must report their findings in various ways, most often by writing formal lab reports.

Homework:

Success in AP Biology hinges on student commitment to preparation and hard work. Required reading is essential. In addition, lab reports and other writing assignments must be completed outside of class. Students should expect to study at least 30 - 60 minutes per day to be successful in this class.

Quizzes:

Unannounced quizzes will be given often to ensure students keep up with required reading.

Tests:

Students should expect several tests during the nine weeks and a cumulative benchmark test at the end of each grading period. Benchmarks will model the AP Biology test. Students will be able to review graded tests and exams, but tests will not be returned to students until after the "correction" period (see below).

*For a portion of the year, students will be allowed to correct mistakes on the multiple choice section of chapter tests for half credit. Students will have to provide explanations with their answers to earn the credit. They will have 5 school days to make corrections: this action must be done outside class time and in one sitting. Students will not be able to make corrections on the benchmark tests.

Course Grade Composition:

- Tests - 40%
- Labs-30%
- Daily work - 10%
- Benchmarks tests - 20%

Absences and makeup work:

AP Biology is a rigorous, fast-paced course, and, as such, student absence can adversely affect performance. Please make every effort to be present in class. Students who are absent should make up any work missed as soon as possible, within three days. In the event of a planned absence, such as a field trip or competition, students should attempt to get assignments ahead of time. Any student who misses a lab, activity, quiz, or test must make an appointment with the instructor to make up the missing item.

Class Rules and Expectations:

1. Be prepared! Bring necessary materials to class each day.
2. Study, read the assigned text, and review class notes for at least 30 minutes daily. Expect pop quizzes frequently.
3. Be conscientious! Complete and turn in assignments on time (**Beginning** of class on due date). Late work will be penalized.
4. All school rules are strictly enforced.
5. Be on time! Tardy to class: Three tardies will result in teacher detention and a call to the parent. If a student is tardy five times within a semester, he will be referred to the office for disciplinary action.
6. Students must be in class during the assigned times; therefore, restroom breaks and class preparation must be handled appropriately. Plan ahead.
7. Food and drink (except for water) are **not** allowed in classroom or lab areas. Open containers/packages will be confiscated.
8. Absolutely no horseplay will be tolerated during lab activities. Violation will result in expulsion from the area and a grade of zero on the lab.
9. Students must clean their equipment and work areas after completing a lab. Violation of this rule will result in **ALL** group members serving detention.
10. As stated in the student handbook of TCHS, students are expected to do their own work. For example, cheating consists of intent to deceive the instructor by copying from outside sources **or** another student. The resulting penalty for cheating will be a zero for that assignment, referral to the office, and parent notification.
11. My primary objective is to help you excel in this course. To that end, I am available to work with students before or after school unless my attendance is required at a meeting. Please make arrangements to seek additional help as soon as possible when needed.
12. Cell phone use in any manner is strictly prohibited in the classroom. Phones must be silenced and stored out of sight during class time. Violation will result in confiscating and transferring the phone to administration in the main office.
13. It is expected that students conduct themselves as young adults at all times.
 - Be courteous of others.
 - Do not speak when another is speaking.
 - Do not disturb other students.
 - Respect school property.

I have read the syllabus and understand its contents as outlined.

Student Signature _____ Date _____

Student Contact Number _____

Parent Signature _____

Parent Contact Number _____