

## AP Biology Course Syllabus

### Instructor:

Judy H Holwell, Ed.S.

E-mail [jholwell@thomas.k12.ga.us](mailto:jholwell@thomas.k12.ga.us)

**Resources:** Campbell, N & Reece, C. (2008). *Biology* (8<sup>th</sup> ed.) Pearson Publishing.

Pack, P. (2007). *Cliffs AP Biology* (3<sup>rd</sup> ed.) Wiley Publishing.

Holtzclaw, F & Holtzclaw, T. (2008). *AP Biology Test Prep Series*. Pearson Publishing.

### 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, which encompass 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 in order 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 being covered 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 will have the option to take a College Board exam over the subject at the end of the school year. Whether or not college credit will be given is determined by the student's score on the AP test.

### Course Standards:

The course is structured around the enduring understandings within four big ideas as 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, to reproduce, and to 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:

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

### Reading In Content Area:

In compliance with GPS science characteristics, students will be required to 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:** 3-ring binder, filler paper, pens and pencils, composition book, calculator

**Lab:**

A large portion (at least 25%) of class time will be devoted to laboratory work. Students will be required to report their findings in a variety of 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:**

Quizzes, both announced and unannounced, will be given often to ensure that students are keeping 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).

**Course Grade Composition:**

Tests - 40%  
AP Labs - 20%  
Other labs - 10%  
Daily work - 10%  
Benchmarks tests - 20%

\*For a portion of the year, students will be allowed to correct mistakes on the objective portion 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 of class time, and at one sitting. Students will not be able to make corrections on the benchmark tests.

**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, student 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. Bring necessary materials to class each day.
2. Study, read assigned text, and review class notes at least 30 minutes each day. Expect pop quizzes frequently.
3. 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 and come prepared for class each day.
6. Tardy to class: Three tardies will result in teacher detention and call to parent. If a student is tardy five times

within a semester, he will be referred to the office for disciplinary action.

7. Students are required to be in class during the assigned times, therefore, restroom breaks and class preparation must be handled at the appropriate times. Plan ahead.
8. Food and drink (with the exception of water) are **not** allowed in classroom or lab areas. Open containers/packages will be confiscated and disposed of.
9. 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.
10. Students must clean their equipment and work areas after the completion of a lab. Violation of this rule will result in **ALL** group members serving detention.
11. As stated in the student handbook of TCCHS, 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.
12. The teacher is available to work with students before or after school, unless teacher attendance is required at a meeting. Please make arrangements to seek additional help as soon as possible when needed.
13. Cell phone use without explicit permission from the teacher is strictly prohibited in the classroom. Violation will result in confiscation and transfer of the phone to administration in the main office.
14. 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.

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

Student Name (printed) \_\_\_\_\_

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

Student Contact Number \_\_\_\_\_

Parent Signature \_\_\_\_\_

Parent Contact Number \_\_\_\_\_