Mrs. Westbrook

Advanced Biology: Fall 2014

AP Biology: Spring 2015

**Contact Info:**

Pickens High School:: 706-253-1800 (between 9:45-11:15 and after 3:15)

E-mail:: christinewestbrook@pickenscountyschools.org

Website: <http://phswestbrookbiology.weebly.com/>

**Testing:**

**AP Test:**

Monday May 11th 8:00 am:

|  |  |  |
| --- | --- | --- |
| **Section I** | | |
| Question Type | Number of Questions | Timing |
| Part A: Multiple Choice | 63 | 90 minutes |
| Part B: Grid-In | 6 |
| **Section II** | | |
| Question Type | Number of Questions | Timing |
| Long Free Response | 2 | 80 minutes + 10 minute reading period |
| Short Free Response | 6 |

# The test is scored on a scale of 1-5. Many colleges and universities allow for the exemption of Introductory Biology based on the score earned on the AP Exam. For more information about AP Biology and the AP Exam go to

[**https://apstudent.collegeboard.org/apcourse/ap-biology**](https://apstudent.collegeboard.org/apcourse/ap-biology)

# End of Course

* Students enrolled in this course will take the state mandated End of Course Test. The date given and material presented in this test is determined by the Georgia Department of Education. AP Biology students will take the exam sometime near the end of May 2012
* The EOCT will count as 20% of the students final average for 2nd semester of this course
* The course curriculum is designed to best prepare students for the EOCT and for the Georgia High School Graduation test, which will be taken in the spring of the student’s junior year of high school
* For more information on these tests and course curriculum standards, you may contact me or go to the Georgia department of Education website at [www.public.doe.k12.ga.us](http://www.public.doe.k12.ga.us)

**Required Course materials**

1. 3 ring binder
2. Notebook paper
3. Pens/pencils
4. Single subject spiral notebook (college ruled)

**Recommended (but not required materials)**

1. Colored pencils
2. Markers
3. Basic calculator
4. Highlighter
5. Index cards

**Text and Resources**

1. Raven, Peter; Johnson, George; et.al. Biology. 8th. Boston: McGraw Hill Higher Education, 2008. (Replacement cost:$77.00)
2. AP Biology Investigative Labs: An Inquiry Based Approach Student Manual, College Board, 2012
3. Pack, Phillip; AP Biology Cliffs AP; 3rd; Hoboken NJ; Wiley Publishing Inc; 2007
4. Labs and activities from many varied resources

Each student is responsible for their assigned textbook. Students will be held financially liable if their assigned book is lost/stolen or vandalized. Students will NOT be issued a replacement for any lost or damaged book, until a book replacement fee has been paid by the student. The student should bring their textbook to class every day. Books are NOT to be stored/left in the classroom. The book issued to the student is to be returned by the last day of the semester. Failure to do so will result in a book replacement fee.

**Tardies**

Official PHS Tardy policy will be enforced.

# Make-up work

## Completing make-up work in a timely manner is YOUR responsibility

AP Biology is a demanding course with a difficult pace, therefore your attendance is crucial. It is understandable that unexpected absences may occur, but you should make every effort to attend class as often as possible. If frequent absences occur, you may find it difficult to keep up. In addition, significant amounts of missing make up work will render it nearly impossible for you to pass the course.

* When you return from absence, it is your responsibility to check with Mrs. Westbrook regarding missed work.
* You should also consult Edmodo for information about assignments.
* If you are absent the day a given assignment is due, then you are responsible for turning it the day you return to school.
* Completion of AP labs are essential to the course and your success on the AP exam, therefore you will be required to make up missed AP labs.
* Please refer to the official PHS make-up work policy

**Course Overview:**

AP Biology is equivalent to a two semester introductory college Biology course. It is an extremely rigorous course which demands students to possess a high level of personal responsibility and motivation. The most successful students devote time almost daily to reading, studying and working on assignments.

* AP biology meets 90 minutes a day for 180 days. We spend approximately 50 days in lab which exceeds the College Board requirement of 25%.
* **Students are responsible for completing reading and written assignments out of class**

**Grading:**

|  |  |
| --- | --- |
| **Assignment** | **% of average** |
| **Tests** (Projects, Mini projects, Lab reports) | 50 % |
| **Daily** (Class work, Homework, Quizzes, Essays) | 50% |

* Homework will be assigned regularly (overlapping assignments). It is your responsibility to keep track of due dates and to hand work in on time. Failure to do so may result in lowering of your grade.
  + 1 day late=25% deduction
  + 3 days late=50% deduction
  + 1 week late=0 points earned
* Each 9 weeks will count as 40% of your cumulative semester average.
* At the end of each semester, there will be a cumulative semester exam which will count at 20% of semester average (2nd semester the exam will be the EOC.
* Please refer to exam exemption policy. See attached.

**Student assignments: will be permitted to drop ONE daily grade per nine weeks**

* Online material: A major component of this course is the use of web based learning resources. More information will provided at a later date
* Quizzes: several times weekly as deemed necessary
* Tests:
  + approximately 50 questions
  + 1-2 essays
  + Corrections may be done to earn back points
* Essays:
  + Practice essays weekly (usually Monday)
  + Timed
  + Covers class topics & labs
* Weekly “mini projects”:
  + 2-3 per nine weeks.
  + Should take no more than an 1-1.5 hours to complete
  + Will provide a wide variety of reinforcement and enrichment of the course curriculum
* Reading
  + In order for you to be successful in AP Biology, you must read and take notes over assigned chapters
  + There will be regular reading quizzes.
* Labs:
  + We will carry out a wide variety of labs (best part of this class!!!!!)
  + You will have the opportunity to learn techniques and use equipment that no other student at PHS has.
  + 8 labs: 2 per Big Idea
    - mandated by the College Board
    - will be tested on AP Biology exam
    - Lab test: will be taken 2-5 days following completion of the lab
      * Will cover methods, materials, scientific concepts, any calculations and graph interpretations associated with the lab.
    - All lab work is to be completed in your lab notebook (Single subject spiral notebook)
    - Labs will be assessed in a variety of ways, including but not limited to
      * Informal/Formal display
      * Powerpoint
      * Poster Sessions
      * Informal/Formal Report
      * Quiz
* Nine week projects: Topics are subject to change: more details will be provided at a later date
  + 1st nine weeks: Science Book Report
  + 2nd nine weeks: Biologist Biography
  + 3rd nine weeks: Extended lab
    - Artificial Selection
    - Organism interactions
  + 4th nine weeks: Review for AP exam

**Big Ideas & Units**

The units in AP biology are designed around the 9 units described by the College Board in the Biology course requirements. In addition, there will be an emphasis on the 4 Big Ideas.

The 4 Big Ideas are distinguished by Enduring Understandings. Enduring Understandings are critical core concepts that students should retain throughout their life. Within each Enduring Understading are statements of Essential Knowledge. E.K. represent specific factual concepts and ideas that support the Enduring Understandings. Science Practices represent key scientific skills that students should acquire. Essential Knowledges and Science Practices combine to for Learning Objectives, these are specific ideas that will be tested on the AP Exam.

**4 Big Ideas: all Big Ideas will be threaded within each of the units**

1. Evolution
2. Cells
3. Genetics
4. Interactions

**The guide given below is an overview and order is subject to change**

**Major Units:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit** | **Major Topics** | **Textbook chapters** | **Big Ideas** | **AP Biology Investigative Labs** |
| **Evolution/Diversity** | 1. **Evolutionary Theory** | **21, 22** | **1** |  |
| 1. **Classification & Diversity** | **26, 28-31** |
| 1. **Viruses** | **27** |
| **Ecology** | 1. **Ecological interactions** | **54-58** | **2, 4** |  |
| **Organic Chemistry** | 1. **Organic Chemistry** | **2, 3** | **4** | * **Enzyme Activity** |
| **Cells** | 1. **Cell Structure & Function** | **4** | **2, 3, 4** | * **Diffusion & Osmosis** * **Cell division** |
| 1. **Cell Membranes and Transport** | **5** |
| 1. **Mitosis/Cell Cycle** | **10** |
| 1. **Cell Communication** | **9** |
| **Genetics** | 1. **Molecular Genetics** | **14, 15** | **1, 4** | * **Mathematical Modleing: Hardy-Weinberg,** * **Comparing DNA sequences** * **Cell Division** * **Bacterial Transformation** * **Restriction Enzyme Analysis of DNA** |
| 1. **Meiosis & Continuity of Life** | **11, 52, 53, 42** |
| 1. **Mendelian & Non-Mendelian Genetics** | **12** |
| 1. **Population Genetics** | **20** |
| **Energetics** | 1. **Photosynthesis** | **8** | **2** | * **Photosynthesis** * **Cellular Respiration** |
| 1. **Respiration** | **7** |
| **Animal Systems** | 1. **Immunity** | **51** | **2, 3, 4** |  |
| 1. **Endocrine System** | **46** |
| 1. **Nervous System** | **44** |
| **Plant systems** | 1. **Plant Systems** | **36, 38, 41** | **2, 3, 4** | * **Transpiration** |
| 1. **Plant Immunity** | **40** |
| **AP Exam Review** |  |  | **1, 2, 3, 4** |  |

**Classroom Rules:**

**BE RESPONSIBLE**

1. Be present & on time for class: The official PHS tardy policy will be enforced
2. Be prepared for class
   1. Bring all materials you need for class
      1. Book/paper/writing utensils
   2. Have your homework finished and ready to turn in

**BE RESPECTFUL**

1. Be alert & attentive in class
2. Be respectful to your teacher and fellow classmates
   1. Speak politely to others in class
   2. Recognize that we may not always agree, but we can disagree respectfully
   3. Leave your classmates personal property alone
3. Take care of the classroom
   1. Do not write on tables/countertops
   2. Clean up after yourself at the end of class
4. Maintain Academic honesty
5. Remain seated until the bell rings
6. Limit bathroom/locker/water fountain trips as much as possible
   1. When leaving the room for any reason, you must have a hall pass signed by Mrs. Westbrook
   2. You must sign out of class, and sign back in when you return
7. Cell Phone
   1. Dock your device
   2. Not to be used for texting/calling during class time!!
   3. May be used for music/calculator/research/etc… WITH TEACHER PERMISSION (that means you need to ask permission each and every time)

**BE SAFE**

**Disciplinary Actions include but are not limited to:**

1. Warning
2. Detention (clean room)
3. After school detention
4. Student/teacher conference
5. Parent/teacher conference
6. Administrative referral

**Academic Honesty Policy**

Any action taken with the intention of obtaining credit for work which is not one's own is considered academic dishonesty. The action may include, but not limited to, the following:

* Submitting another student's work as one's own work.
* Obtaining or accepting a copy of tests or scoring devices.
* Giving or obtaining test questions or answers from a member of another class.
* Copying from another student's test or computer file, or allowing another student to copy during a test or computer program.
* Using materials which are not permitted during a test.
* Plagiarism (presenting as one's own material copied without adequate documentation from a published source).
* Copying or having someone other than the student prepare the student's homework, paper, project, laboratory report, computer program or take-home test for which credit is given.
* Permitting another student to copy or writing another student's homework, project, report, paper, and computer program or take-home test.
* Accessing restricted computer files without teacher authorization.
* Copying materials including computer software, in violation of the copyright law.

**Consequences for violation of the Academic Honesty Policy may include but are not limited to**

* Zero on the assignment
* Teacher/student conference
* Teacher/parent conference
* Administrative referral

**Student Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Advanced/AP Biology Syllabus

2014-2015

Mrs. Westbrook

I have read, understand and agree to follow all policies/rules set forth in the course syllabus

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

Student Printed Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent Printed Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_