



Biology II Honors/ AP Biology

Ms. Valente

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Course Description:

Advanced Placement Biology is designed to be equivalent to a two semester college introductory biology course and therefore will be taught with college level difficulty. This course is very rigorous and challenging, but also very interesting and exciting. AP Biology differs significantly from a traditional high school biology course due to text content, depth of material covered, lab work, and time and effort required to achieve mastery in the subject area. This course is designed to be taken after the successful completion of Biology 1/Biology 1 Honors and Chemistry 1/Chemistry 1 Honors (or concurrent enrollment). In this course students will be presented with opportunities to increase skills in advanced laboratory technique, to increase knowledge about biology in the rapidly changing world, and to deepen their existing understanding of the critical relationships between organisms and the environment. This class will meet everyday, first and second semester for 97 minutes during 5th/6th block. This should provide enough time for us to complete not only the 12 required AP Biology laboratories but additional labs and activities as well, making up about 25% of class time. Because this class is lab oriented, it will be to the student's advantage to be present at each and every class meeting and to work diligently.

The topics to be covered include biochemistry, energy and metabolism, cell structure and function, heredity, molecular basis of inheritance, DNA technology, evolution, classification, plants, animals, and ecology. These topics are interwoven and connected to eight major themes which are emphasized throughout the course:

- *Science as a Process*
- *Evolution*
- *Energy Transfer*
- *Continuity and Change*
- *Relationship of Structure and Function*
- *Regulation*
- *Interdependence in Nature*
- *Science, Technology and Society*

In addition, the students will discuss the concepts covered by laboratory activities in detail with particular emphasis placed on how these activities are related to the concepts and themes listed above.

Goals and Expectations:

Students who successfully complete AP Biology will have:

1. Gained a greater understanding and respect for the complexity of life.
2. Gained an appreciation of science as a process through scientific inquiry.
3. Recognized the uniting themes of biology.
4. Applied biological knowledge and critical thinking to environmental and social concerns.
5. Developed an understanding of the concepts of modern biology needed to be successful on the AP exam.

Required Materials:

- Textbook: Campbell, Neil A., and Jane B. Reece. *Biology*, 8th edition. Upper Saddle River, NJ: Prentice Hall
- Three ring binder
- Loose-leaf paper
- Graph paper
- Pencils and blue or black ink pens (*for written assignments*)
- Red pen (*for grading*)
- Access to internet (*at home or school*)
- A roll of paper towels, liquid dish soap, or Kleenex (*These are materials that we will need in the lab that are unfortunately not provided by the school*)

Suggested Materials:

- Cliff Notes AP Biology, 2nd or 3rd edition
- You may wish to bring antibacterial wipes for the lab safety goggles.

Classroom Rules:

In order to maintain a positive and enthusiastic learning environment, rules and daily practices must be understood and followed. Everyone has the right to learn. No one has the right to hinder others from learning. Advanced Placement students should be exemplary in their attitudes and behavior. They are subject to the rules and consequences of Ridge View High School on campus and on field trips as outlined in the student handbook. Students are held accountable for their personal performance. This includes cooperation, participation, and professionalism both in and out of the classroom. Here are some simple rules to follow while in my classroom:

- Be Prompt, Polite, Prepared, and Productive!
- Be in seat when bell rings, not at the door!
- Do **not** leave your seat unless given permission!
- Follow all lab safety rules! (see attached sheet)
- I dismiss you from class!
- Be **RESPECTFUL** not only to yourself, but also to those around you!

Bathroom Rule:

- You will be given two bathroom passes for each semester (*but you must use your agenda book in the halls*).
- After that, you will be given permission to go to the bathroom but for every minute you are gone, you will have to serve that time with me during lunch.
- Failure to show up to make up your time will result in a disciplinary notice.
- *If you have special needs or health problems concerning this issue please bring a signed note from your parent.*

Homework:

Homework will be assigned almost every night. It may be as simple as reading a chapter from your book or studying for a test or quiz. It may be more challenging like writing a lab report or answering review questions. Assignments are to be done neatly on loose-leaf paper, using pencil or black/blue pen or typed (lab reports must be typed).

- Late work is NOT acceptable. Points will be deducted each day a homework assignment is turned in late.
- No name loses 5 points
- No paperclips. (Please staple assignments)
- If you are late to class, you are responsible for turning in work when you arrive, I will not ask!
- Keep it organized in your notebook. You will need it when it's time to prepare for the AP exam.

Assessment:

A variety of assessments will be used in this course, but the majority (percentage wise) of your grade will be determined by quizzes and tests (to prepare you for the AP exam.) Questions on quizzes and tests will include material covered during class, in assigned readings and from laboratories. You should expect the following:

- Quizzes (vocabulary or reading/content-based, and pre-lab quizzes)
- Unit tests (may cover one or several chapters in the book and will require a considerable amount of time)
- Projects (require the bulk of work to be done outside of class. Examples: Phylogenetic Tree for the Kingdom Animalia, Virus presentation, etc.)
- Formal Lab Reports (for the 12 required AP labs)

Evaluation criteria include participating in and completing classroom activities, working cooperatively in group assignments, correctly answering questions on quizzes/tests, completion of assigned projects, communication of laboratory data in a correct and complete manner, and demonstrating proper lab techniques and safety.

Cheating Policy:

All students will be held to the Academic Integrity policy of Richland School District II. Cheating is attempting to receive academic credit or helping someone else receive academic credit for work that was not personally done or for knowledge not personally mastered. Here are some ways you are presumed cheating:

- When you copy someone else's work or give your work to someone else to copy.
- When you turn in someone else's work as your own.
- Looking on another student's paper, turning around in your desk, passing notes, or talking during tests or quizzes.
- Bringing in or using any unauthorized information or technology during a test or quiz.

THE PRESUMPTION IS THAT YOU ARE HONORABLE AND ETHICAL AND WOULD NEVER KNOWINGLY CHEAT.

Absence Policy:

- Being absent from class does NOT give you an excuse to not do an assignment! According to district policy, students must have the ability to make up any missed work. A student is required to bring an excuse to the attendance desk and is given 5 days after returning to school to make up the work. If you do not make up your missed work within that time period, it will result in a zero.
- You are responsible for finding out what you have missed while absent. I will not hunt you down to give you your assignments. You must ask me or another person in your class for missing assignments. It is suggested that you pick a “study buddy”. Be sure to pick someone reliable and exchange phone numbers.
- *Homework* --if assigned the day you are present, it is due the day you return, at the beginning of class. If absent when assigned, it is due the second day back.
- *Test/Quiz* --If you have been present for all material that is covered on a test you will be required to take the test the day you return. Otherwise, you must set up a time with me to make up a quiz or test. This must be completed within one week of your return. **Failure to do so will result in a zero!**
- *Labs*- Labs are particularly difficult to make up. Please make every effort to attend all classes where we will be conducting a lab.

Grading:

Grading in my class is based on total points. ***I will post your grades once a week so you can record them in your agenda book and share them with your parents.*** It is a good idea to record all graded papers on a Grade Sheet. This allows you to figure your grade at any time, and to compare the grade you calculate with what is posted. Your grade is calculated by dividing the total number of points received by the total number of possible points. If you would like to talk with me about your grades please see me before school, during lunch, or after school. You will receive a final grade for the first semester of Biology 2 Honors and another separate final grade for the second semester of AP Biology.

Your final grade is calculated so that the first and second quarters are each worth 40% of your grade and your Final Exam (practice AP exam) is worth 20% of your final grade.

A (93-100);

B (85-92);

C (77-84);

D (70-76);

F (0-69)

Substitute Policy:

If the substitute teacher leaves your name for me indicating that you have not followed their directions you will serve after school detention with me. Failure to show up for detention will result in a discipline notice!

Course Outline:

The course is organized into the three major instructional areas shown below. The material covered and its sequence reflects the course outline suggested by the authors of the AP exam.

I. Molecules and Cells (25%)

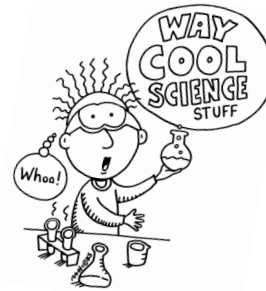
- A. Chemistry of Life (7%)
- B. Cells (10%)
- C. Cellular Energetics (8%)

II. Genetics and Evolution (25%)

- A. Heredity (8%)
- B. Molecular Genetics (9%)
- C. Evolution (8%)

III. Organisms and Populations (50%)

- A. Diversity of Organisms (8%)
- B. Structure and Function of Plants and Animals (32%)
- C. Ecology (10%)



The first two areas (Molecules and Cells, and Genetics and Evolution) will be covered during the fall semester, while the last area (Organisms and Populations) will be covered during the spring semester. Most units of study include a lecture component with student discussion. Students will also have the opportunity to debate topics such as cloning, genetic engineering, pollution, etc., participate in hands-on laboratory activities and complete research projects. Free Response questions will be given often to prepare students for that portion of the AP exam. A more detailed schedule will follow with the approximate time allotted for each unit.

Dates to Remember:

AP Exam Review Sessions: *Tuesdays and Thursdays starting March 6, 2012*

Practice AP Exam: *Saturday, April 28, 2012 or Saturday, May 5, 2012*

AP EXAM: *Monday, May 14, 2012*

Please sign the last sheet in this packet stating that you have read and agree to all of the above rules and regulations in Ms. Valentie's Biology class.



Student Name: _____ # _____

Ridge View High School
Parent's Information / Permission Form
Biology II Honors/ AP Biology - Ms. Valentie

Part 1-Syllabus

- I have read and fully understand the rules, requirements, and expectations for this class. I promise to never give Ms. Valentie a hard time!

Student Signature

Date

Parent Signature

Date

Part 2- Laboratory Safety Contract

- As a student at Ridge View High School, I do hereby agree to follow all safety rules and regulations as set fourth by the instructor. I understand that I will not participate in laboratory activities until I successfully complete the safety assessment with a score of 90 or above. I realize that compliance with these rules is necessary to assure the safe operation of the school laboratory and provide a safe environment not only for myself, but also for my fellow classmates and teacher as well. I will, therefore cooperate fully with the teacher and students to assure all of us the safest laboratory possible. I will act responsibly to look for possible safety hazards and will immediately point out these hazards to the instructor. I realize that, as a student, much of the responsibility for safety is in my hands. I have read the attached rules and agree to comply with them I understand violation of these rules may result in the loss of laboratory privileges and possible disciplinary measures.

Student Signature

Date

- I, (parent's printed name) _____, have read this safety contract and the attached rules list. I give permission for my child/ward to participate in laboratory activities.

Parent Signature

Date

Part 3- Parent Information

Parent (s) Name (**print**): _____

Day time Phone number: _____

Day time E-mail (**please print clearly**): _____

Do you have internet access at home? _____ YES _____ NO

1. Describe your child (physical characteristics).

2. What are some of the interests your child has outside of school (sports, music, etc.)?

3. What kind of learner is your child (visual, auditory, kinesthetic, mixture, etc.)?

4. Is there anything important that I need to know about your child that would help make this semester more successful?