



Rockridge Secondary School

AP Biology 11

Course Outline 2012/2013

Teacher: Ms. Michelle Wood
Email: mwood@sd45.bc.ca
Website: mswood.weebly.com

What is Advanced Placement Biology?

"The AP Biology course is designed to enable you to 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. The result will be readiness for the study of advanced topics in subsequent college courses—a goal of every AP course. This AP Biology course is equivalent to a two-semester college introductory biology course and has been endorsed enthusiastically by higher education officials.

The Emphasis on Science Practices

A practice is a way to coordinate knowledge and skills in order to accomplish a goal or task. The science practices enable you to establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Because content, inquiry, and reasoning are equally important in AP Biology, each learning objective combines content with inquiry and reasoning skills described in the science practices.

The science practices capture important aspects of the work that scientists engage in, at the level of competence expected of you, an AP Biology student.

The key concepts and related content that define the revised AP Biology 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.

Big Idea 1: Evolution

The process of evolution drives the diversity and unity of life.

Big Idea 2: Cellular Processes: Energy and Communication

Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

Big Idea 3: Genetics and Information Transfer

Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Interactions

Biological systems interact, and these systems and their interactions possess complex properties."

- College Board AP

The AP Biology course is explored over two years: **AP Biology 11** and **AP Biology 12**.

After completing the AP Biology program (with the AP exam will occurring in May 2013) it is possible for students to have received credit for: Biology 11, Biology 12, AP Biology 12, and First Year University/College Biology.

In AP Biology 11, we focused on the following concepts: Animal Behaviour, Ecology, Mechanisms of Evolution, The Evolutionary History of Biodiversity (Bacteria, Protists, Fungi, Plants, and Animals), A Tour of the Cell (structures, cell cycle), Mendelian Genetics, and Molecular Genetics (DNA Replication, Protein Synthesis).

Next year, in AP Biology 12, we will focus on the following concepts: The Chemistry of Life, The Cell (membrane function, communication, regulation of cell cycle), Molecular Genetics (Regulation of Gene Expression, Viral Structure and Replication, Technology), Respiration and Photosynthesis, Plant Form and Function, and Animal Form and Function (including Human Systems Biology ex: Digestion, Circulation).

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Textbook: *Biology* by Campbell and Reece 8th Edition (AP)

Course Fee: Biology 11 preAP has a course fee of \$80. This enrichment fee provides students extra resources to help them understand the concepts and themes of AP Biology. It also provides the equipment and materials to explore the recommended AP laboratories. Please make cheques payable to *Rockridge Secondary* and hand in to the office ASAP.

Expectations

You are expected to take an *active* role in this class. This means thinking, asking questions, contributing to class discussions, making connections, planning for improvement, and taking ownership over your own learning. You are also expected to collaborate with your peers in order to help everyone achieve their learning goals. This will come in the form of peer feedback and group discussions.

With the help of Ms. Wood and your peers, you will develop the ability to understand what you have already learned, determine what you have yet to learn, and decide how you can best improve on your achievement. We will assess all concepts, assignments and labs using performance-based rubrics that have clear intentions and clear criteria.

Throughout the course, you should always be able to answer the following questions:

(1) What am I learning? (2) How's it going? (3) Where to next? (4) Why does it matter?

AP Biology is a demanding course. You should be prepared to do homework every day to keep up with labs, assignments and readings. Daily review of course material at home is essential for success. You need to bring all necessary classroom supplies and textbook to class every day, unless told otherwise by the teacher.

Be on time: In order to achieve a Work Habits mark of "G," you must be *consistently* on time.

Absences: All absences from the class must be excused by a phone call to the office **on** the day you are absent (call 981-1234 ext. 1300 before 8:25 a.m.). **YOU** are responsible for getting peer notes, handouts, due dates and catching up with the material missed. It may be helpful to get contact information of your colleagues in class to help with your learning and review.

Missed Tests: If you are absent on the date of a quiz or a test, you will not be permitted to write that test. If your absence is caused by sudden illness or extenuating circumstance, you must speak to your teacher as soon as possible to determine the course of action.

Deadlines: It is expected that you hand in your completed assignments by the due date *at the beginning of class*. In extenuating circumstances, any extension of deadline must be discussed with the teacher well in advance of the due date.

Evaluation: As stated earlier, you will be expected to take an active role and be responsible for your own learning. Every unit will be organized by an overall learning goal and 2-5 specific concepts, which will be formally assessed using a variety of assignments, labs, "checkpoint" quizzes, and tests. We will assess all concepts, assignments and labs using performance-based rubrics that have clear criteria.

There is a school-based final exam worth 25% of the AP Biology 11 year.

Extra help?

Please come and see me! You can email me, or just track me down in W204.

Anything Else? If you have any questions or concerns, please do not hesitate to talk to me or email me (mwood@sd45.bc.ca).

I am looking forward to a fun, exciting, and rewarding two years of AP Biology!! ☺