

AP Biology Course Syllabus

The advanced placement program's mission is to provide an opportunity for high school students to pursue and receive credit for college-level course work. The class will have a rigorous schedule that will allow motivated and able students to receive instruction in an advanced form of biology. The curriculum is different from the introductory biology taught in the lower division at West Campus. Due to the rigor of the course and the length of the lab activities, additional class time may be scheduled before or after regular school hours to ensure student success and completion of the activities.

The course emphasizes the major themes and concepts of biological science. The course will utilize laboratory activities to allow students to experience the hands-on, discovery aspect of science. This allows the students to do both quantitative and qualitative science ensuring that they will get the "big picture" and major insights into the science of life. It also makes the content of a biology course less overwhelming and more meaningful by weaving small pieces together into a relevant, understandable whole.

The AP Biology course allows students the ability to participate in an internationally recognized program whose high standards are widely known and highly regarded. Students can measure themselves against a challenging national collegiate standard and possibly receive college credit and/or advanced standing for their work. Even if credit is not awarded, admissions offices recognize the rigor of AP courses on a transcript and may factor them in when determining college acceptance. Enrollment in AP classes is recognized as one of the very best predictors of college success.

The objective of this course is that students will be adequately prepared to take the AP exam in May and that they will receive a score of 3 or higher on the exam (the exam receives a score of 1-5 with a 3 being a pass for credit at participating post-secondary institutions). Students will be aware of the format and the quality expectations of the essay graders. To ensure that this occurs students will practice, throughout the school year, utilizing different teacher and student-prepared resources. There are also many professionally published guides that will help to facilitate a successful experience in this course.

TEXTBOOK:

Campbell BIOLOGY 8th ed. 2008 (Benjamin Cummings pub.)

EVALUATION:

Unit-end tests and Quizzes	30%
Assignments and laboratory work	30%
Class Participation	5%
Lab quizzes and Spot tests	10%
Semester and course end exam	<u>25%</u>
Total per semester	100%

GRADING SCALE:

A	85-100%
B	75-84%
C	65-74%
D	60-64%
F	<59%

Students and Parents have access to grades and missing assignments by logging on to the grade reporting program provided by the district at SCUSD.EDU

I have read and understand these expectations.

Date:

Parent Signature:

Student Signature:

ATTENDANCE

Regular attendance is absolutely necessary. Poor attendance will jeopardize your chance of obtaining credit. Attendance will be monitored closely. Your parents may be contacted by telephone, email or letter to discuss your absence and progress in the class. **You** are responsible for obtaining the notes, labs, handouts, and assignments missed during your absence. If you are absent on a test day you must make arrangements to write the test **immediately** upon your return by contacting the teacher as soon as possible. Tests that are not written within 5 days of returning to school will be issued a null score (zero). Students that have extended absences **MUST** have prior administrative approval and documentation for exceptions to this rule.

HOMEWORK and READING

It is imperative that all homework and reading assignments be completed before returning to class. Homework will be checked regularly & a record of incomplete assignments will be kept. Points will be deducted for incomplete and late assignments. Your parents may be contacted when your homework is not done. All assignments should be completed in order to ensure that credit will be obtained in the class. Students and parents may access daily homework by logging on to Mr. Mapplebeck's website: **www.wcscience.com**. Information for the course may also be found at the West Campus Edmodo website.

MATERIALS

Large ring binder, lined paper, graph paper, pens, pencils, a white eraser, file folders, access to a computer, internet and printer, a camera, ruler, a calculator, and a USB drive to save work. Safety goggles will be provided, however students may want to purchase their own for best fit.

TEXTBOOKS

All books and borrowed materials must be kept in good condition and handed in at the end of the semester. You will be charged a fine for damage or writing in your text or loss of textbook materials. Lab reports are documentation and should be retained by the student if they expect to receive college credit.

BEHAVIOR

Safe and respectful behavior is expected at all times in the laboratory. Safety procedures will be demonstrated as required in the laboratory. Students that are tardy affect the learning of themselves and other students in the class. More than two tardies will result in the loss of class participation points. This includes students who must leave the class to comply with the dress code or to retrieve materials from their lockers. Recording of any kind is not permitted in class without the instructor's permission (Ed Code 66450-66452). This includes publishing of class materials and discussions.

EXTRA HELP

Your teacher will be available for extra help by appointment. My extension number is (277-6400) 1263 and my e-mail is: mapplebecks@scusd.edu **or** s_mapplebeck@yahoo.com.

LABORATORY DONATION

Materials in the AP Biology lab that are consumed cost approximately \$1000 annually per section. This covers the cost of items specific to the 13 AP authorized labs and **does not** cover additional activities such as dissections and field trips. The annual teacher budget is \$200. If you would like to assist with your science education, please see your teacher.

SPECIAL NEEDS

Students with special needs should contact me as soon as possible to make arrangements for accommodation of those needs.

I have read and understand these expectations.

Date:

Parent Signature:

Student Signature:

AP Biology
Course Outline
Semester 1

1. Evolutionary Biology Chapters 22-25 in Biology (Campbell 8th ed)
 - Early evolution of life
 - Evidence for evolution
 - Mechanisms of evolution

2. Chemistry of Life Chapters 1-5, 8 in Biology (Campbell 8th ed)
 - Water
 - Organic molecules in organisms
 - Free energy changes
 - Enzymes

3. Cells Chapters 6-7, 9-12 in Biology (Campbell 8th ed)
 - Prokaryotic and eukaryotic cells
 - Membranes
 - Subcellular organization
 - Cell cycle and its regulation
 - Coupled reactions
 - Fermentation and cellular respiration
 - Photosynthesis

4. Heredity Chapters 13-15 in Biology (Campbell 8th ed)
 - Meiosis and gametogenesis
 - Eukaryotic chromosomes
 - Inheritance patterns

I have read and understand these expectations.
Parent Signature:
Student Signature:

Date:

AP Biology
Course Outline
Semester 2

1. Molecular Genetics Chapters 16-21 in Biology (Campbell 8th ed)

- RNA and DNA structure and function
- Gene regulation
- Mutation
- Viral structure and replication
- Nucleic acid technology and application

2. Structure and Function of Plants Chapters 35-39 in Biology (Campbell 8th ed)

- Plant structure, growth, and development
- Resource transport in plants
- Soil and plant nutrition
- Angiosperm reproduction
- Plant responses

3. Structure and Function of Animals Chapters 40-51 in Biology (Campbell 8th ed)

- Animal structure and function
- Animal nutrition, circulation, and immune system
- Excretion, endocrine, and reproduction
- Embryology, nervous systems, and behavior

4. Ecology Chapters 52-56 in Biology (Campbell 8th ed)

- Population dynamics
- Communities and Ecosystems
- Global issues

Monday, May 13th at 8:00 am AP Biology Exam

Cost of Exam \$95 (estimated; this cost is the responsibility of the student)

I have read and understand these expectations.

Date:

Parent Signature:

Student Signature: