



Dallas High School Home of the Dragons



Advanced Placement Biology

2013-2014

Instructor: Janelle Ussery

Telephone: (503) 623-8336 X 915

Email: janelle.ussery@dsd2.org

Office Hours: Tues-Friday 3:00-3:30, Tues. and Thurs. 11:50-12:20, and additional times by arrangement.

Course Description: Advanced Placement Biology is designed to be the equivalent of a college introductory biology course. The class is conducted at the college level and students are expected to work accordingly. 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 each subject area. This course is designed to be taken by students after successful completion of high school biology and Chemistry. It is highly recommended that the student complete one year of Anatomy & Physiology as well, prior to enrolling in AP Biology. Concurrent enrollment is also acceptable.

Text:
Biology, Campbell & Reece, 7th ed.

Course Organization:

This course has just undergone a major restructuring, centering around four big ideas and the enduring understandings that fall under each. The Enduring Understandings are the standards that will be assessed in this course and are listed later in this syllabus. The course has shifted focus from its previous breadth, to one of more depth. This allows students to delve deeper into some of the topics by using more inquiry-based laboratory work and hands-on activities. The class will still rely on a broad knowledge base, and will be fast-paced, but the redesign makes the topics flow together more easily. The common thread running throughout the course is evolution.

The four Big Ideas: (E2I2)

Big idea 1: The process of **evolution** drives the diversity and unity of life. (E)

Big idea 2: Biological systems utilize free **energy** and molecular building

blocks to grow, to reproduce and to maintain dynamic homeostasis. (E)

Big idea 3: Living systems store, retrieve, transmit and respond to

information essential to life processes. (I)

Big idea 4: Biological systems interact, and these systems and their

interactions possess complex properties. (I)

Course Outline

	Unit Topic	Summative Assessment (Standards assessed are listed by unit below)
Unit 1:	Evolution --diversity and unity of life	A. Advanced Placement free response questions (1 per chapter assessment) B. Two (2) multiple-choice chapter tests
Unit 2	Energy —growth, reproduction, homeostasis	A. Advanced Placement free response questions (1 per chapter assessment) B. Two (2) multiple-choice chapter tests
Unit 3	Information —store, receive, transmit, respond	A. Advanced Placement free response questions (1 per chapter assessment) B. Two (2) multiple-choice chapter tests
Unit 4	Interactions —processes, complex properties	A. Advanced Placement free response questions (1 per chapter assessment) B. Two (2) multiple-choice chapter tests

Standards to Be Assessed:

Unit 1:

- 1.A Change in genetic makeup of a population over time is evolution.
- 1.B Organisms are linked by lines of descent from common ancestry.
- 1.C Life continues to evolve within a changing environment.
- 1.D The origin of living systems is explained by natural processes.

Unit 2:

- 2.A Growth, reproduction and maintenance of the organization of living systems require free energy and matter.
- 2.B Growth, reproduction and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments.
- 2.C Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis.
- 2D. Growth and dynamic homeostasis of a biological system are influenced by changes in the system's environment.
- 2E. Many biological processes involved in growth, reproduction and dynamic homeostasis include temporal regulation and coordination.

Unit 3:

- 3.A Heritable information provides for continuity of life.
- 3B. Expression of genetic information involves cellular and molecular mechanisms.
- 3C. The processing of genetic information is imperfect and is a source of genetic variation.
- 3D. Cells communicate by generating, transmitting and receiving chemical signals.
- 3E. Transmission of information results in changes within and between biological systems.

Unit 4:

- 4.A Interactions within biological systems lead to complex properties.
- 4.B Competition and cooperation are important aspects of biological systems.
- 4.C Naturally occurring diversity among and between components within biological systems affects interactions with the environment.

Career Related Learning Standards: Career-related learning standards (CRLS) are fundamental skills essential for success in employment, college, family, and community life. We have integrated the Personal Management standard from the CRLS into all courses at DHS. **This standard will be assessed and communicated independent of the academic grade.** It is included below and mainly includes behaviors that will be assessed in this course.

- **Personal Management Standard:** Exhibit appropriate work ethic and behaviors in school, community and workplace.
 - Students will identify tasks that need to be done and initiate action to complete the tasks.
 - Students will plan, organize and complete projects and assigned tasks on time, meeting agreed upon standards of quality.
 - Students will take responsibility for decisions and actions and anticipate consequences of decisions and actions.
 - Students will maintain regular attendance and be on time daily.
 - Students will maintain appropriate interactions with colleagues.

Grading and Assessment:

Student's final grade for each course will be broken down into two categories:

- 1) **Academic:** based on assessments, tests, projects and performances that measure learning.
- 2) **Personal Management:** based on homework completion and other behaviors measuring the CRLS personal management standard.

The Final grade is calculated as follows: 90% of the course grade will be based on the **Academic** grade and **10%** on the **Personal Management** grade.

- Any items included in the Academic grade (PA) may be retaken and the higher grade recorded. Teachers may extend the retake time period, but as a rule all retakes need to be done within 2 weeks of the initial assessment.
- Students will complete extra preparation before retaking an assessment.
- Personal management work turned in late may be reduced by up to 50% credit.
- Retakes are not allowed on Personal Management assignments.
- Students must schedule performance retakes at their teacher's convenience. (Speech, drama, labs.)

Academic Integrity: We expect students to express academic integrity by doing their own work and properly documenting information gathered from other sources. Students who violate the principles of academic integrity will be subject to disciplinary consequences (see Insubordination section of the on-line student agenda).

Extra Credit: Extra credit is not offered, however students may be given additional opportunities to show mastery.

Cell Phones and Electronic Devices: Mobile phones are not to be in use or in open view within classrooms, restrooms, locker rooms, or during lockdown situations. Misuse of mobile phone or electronic device will lead to the following consequences:

- 1st offense - confiscated device is delivered to the main office and returned to the student at the end of the school day.
- 2nd offense - confiscated device is delivered to the main office where parent/guardian will be contacted to reclaim possession.
- 3rd offense – discipline referral for “insubordination”, parent contact, and student will no longer be allowed to have the device at school without administrator permission

Personal Communication Devices Board Policy:

<http://policy.osba.org/dallas/j/jfceb%20r%20g1.pdf>

Tardies and Unexcused Absences: Points will be given towards the Personal Management grade at the end of each grading period (9 weeks/18 weeks) for daily attendance and punctuality. Points will be deducted for each tardy and each unexcused absence in that 9-week grading period. Overly disruptive behavior may also result in loss of attendance points.

College Course: Please be reminded that this is a rigorous entry-level college freshman course. As such, students should be prepared to put in the necessary work and study time required of such a course. By taking this course, students will gain valuable insight and skills necessary for succeeding in the college setting. Please take note that because this is an AP course, the grading structure is **90% Academic and 20% Personal Management**. This in no way negates personal management work. On the contrary, that is the very work that will allow students to succeed on academic assessments. In most college science courses, personal management work is not collected and the grade in the course is based upon a mid-term exam and a final exam.

Students should expect to have some type of homework each night. Many of the lectures and associated power point presentations will be completed at home, using an email account.

******At the time of printing this document there were 34 students enrolled. I cannot stress enough to students and parents the need for complete cooperation and focused attention during class time. It is nice to see the interest, but at the same time can be a challenge for teacher and students alike. I need both parents and students to understand that I simply cannot deal with talkative and disruptive students. My job is to teach and give necessary skills and knowledge needed for the AP Exam in May. Teaching and learning are compromised when disruptions are frequent. Should problems arise, I will speak first with the student and then contact a parent or guardian.

Parents/Guardians: Please keep the rest of the syllabus, and send this one page back with your student. By signing this form, you acknowledge that you have read and fully understood the expectations, rules, and standards associated with AP Biology. You also fully understand the need for complete cooperation from your student in a class of this size. If you have questions, please call 503-623-8336 ext. 915 or email using the email address provided in this document.

Parent Name:

Parent Signature:

Parent email Address:

Parent Phone:

Student Name:

Student Signature: