AP Environmental Science Syllabus 

# Introduction

Instructor:

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**Instructor Education:**

Bachelor of Science

 in Biological Sciences

Master of Science-Education

 with an emphasis in Biology

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The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. Unlike most other introductory-level college science courses, environmental science is offered from a wide variety of departments, including geology, biology, environmental studies, environmental science, chemistry, and geography. Depending on the department offering the course, different emphases are placed on various topics. Some courses are rigorous science courses that stress scientific principles and analysis and that often include a laboratory component; other courses emphasize the study of environmental issues from a sociological or political perspective rather than a scientific one. The AP Environmental Science course has been developed to be most like the former; as such, it is intended to enable students to undertake, as first-year college students, a more advanced study of topics in environmental science or, alternatively, to fulfill a basic requirement for a laboratory science and thus free time for taking other courses.

The AP Course Description and AP Exam have been prepared by environmental scientists and educators who serve as members of the AP Environmental Science Development Committee. In both breadth and level of detail, the content of the course reflects what is found in many introductory college courses in environmental science. The exam is representative of such a course and therefore is considered appropriate for the measurement of skills and knowledge in the field of environmental science. *(© 2013 The College Board. Visit the College Board on the Web:* [*www.collegeboard.org*](http://www.collegeboard.org)*.)*

# Primary Text

Miller, G., & Spoolman, S. (2015). *Living in the environment: Principles, connections, and solutions* (Eighteenth ed.).

Stamford, CT: Cengage Learning.

# Required Course Materials

* One 3-ring binder
* Loose-leaf notebook paper
* Pencils
* Blue and/or black ink pens ONLY
* Highlighters

**Additional Classroom Needs (Optional)**

* Kleenex
* Clorox Wipes
* Markers or Colored Pencils

**Class Profile**

AP Environmental Science is designed as a two-semester course. The Academies of Jonesboro High School class schedule follows an “A/B Block Schedule” with the duration of each class session being 80 minutes. Therefore, students will be in AP Environmental Science for two class sessions one week and three class sessions the following week.

 The equivalent to a minimum of one class period per week will be devoted to hands-on laboratory experiences, projects,

 presentations, equipment testing/practices, and/or fieldwork. All hands-on laboratory experiences and fieldwork will be

 documented with electronic field guides, a presentation (some including a visual aid), and/or a laboratory report (either formal

 or informal). The labs that are not formally written up or presented with have procedure and data checks with analysis and

 synthesis questions and conclusion statements reported and turned in for a lab grade.

 Fieldwork and/or field trips may be a combination of in-class activities, school-excused absences, after school activities, and

 weekend activities.

# Course Overview

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. Yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. The following themes provide a foundation for the structure of the AP Environmental Science course. *(© 2013 The College Board. Visit the College Board on the Web: www.collegeboard.org.)*

1. Science is a process.
	* Science is a method of learning more about the world.
	* Science constantly changes the way we understand the world.
2. Energy conversions underlie all ecological processes.
	* Energy cannot be created; it must come from somewhere.
	* As energy flows through systems, at each step more of it becomes unstable.
3. The Earth itself is one interconnected system.
	* Natural systems change over time and space.
	* Systems vary in ability to recover from disturbances.
4. Humans alter natural systems.
* Humans have had an impact on the environment for millions of years.
* Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.
1. Environmental problems have a cultural and social context.
* Understanding the role of cultural, social, and economic factors is vital to the development of solutions.
1. Human survival depends on developing practices that will achieve sustainable systems.
* A suitable combination of conservation and development is required.
* Management of common resources is essential.

**Methods and Teaching Strategies**

At the beginning of the school year, students will be given a copy of the complete course syllabus and a set of handouts that are expected to remain in the students’ class binder until completion of the course.

Instruction throughout this course will vary based on the topics. Instruction will involve: lectures, handouts, reading assignments, class discussions, demonstrations, TED Talks, virtual demonstrations/videos, written assignments (in-class and homework assignments), research projects/presentations (including presentation boards/posters), formal/informal lab reports, field notes, and laboratory experiments.

**Homework**

AP Environmental Science is a rigorous course; therefore, students will have homework (of various types) to complete. Students will receive plenty of supplemental materials to help them be successful throughout this course. Do NOT arrive in class and ask to go to your locker/car or to call your mom to get your homework/classwork that is due!! If you do not turn it in during the class period it is due, it will be considered LATE!

**Homework/Make-Up Work Policy**

Students are to turn in all required work on the due date at the specified time. Due to Google Classroom, and my Class Website being updated regularly, no late work will be accepted (with very few exceptions) because the due dates were known ahead of time. A student will only receive make-up work if he/she had an excused absence. It is the students’ responsibility to ask the instructor what he/she missed on his/her OWN time! Do not come in as the bell is ringing asking for make-up work! For more information, please refer to the School Policy Handbook, the Academy Polices, and/or the Science Department Policies.

**Labs**

Laboratory experimentation and exploration are a large part of this course. It is vital that the students follow all laboratory procedures and safety rules/guidelines. Failure to comply with behavior expectations can result in removal from the lab activities. A safety contract will be sent home and filled out by the student and the parent/guardian. These documents will be kept on file and are needed before a student can participate in any labs. Students are expected to write formal lab reports in the format provided by the teacher. Labs missed due to excused absences need to be made up in/on an agreed upon time with the teacher. Students can NOT borrow data or results from classmates. It is the responsibility of the student to be sure these labs are made up. The make-up lab will be scheduled at the teacher’s convenience. Failure to make up labs will result in a zero for that grade.

**Exams**

Exams will be over material we cover in class, textbook material, supplemental material you are asked to read, and material covered in handouts, labs, or other activities. The test will be in the same format as the AP Environmental Science Exam; therefore, each test will have both a multiple choice section and a free response question section. Each of those sections will be administered separately with a specific time limit for each. This will help students understand how the main APES Exam will be administered, and it should help improve their testing strategies as the year progresses. Comprehensive semester exams will be given at the end of the semester. Students should study daily to be prepared for all exams! The teacher reserves the right to administer a different make-up exam.

**Quizzes**

Quizzes may be given at any time covering assigned reading, previous lectures, homework, lab procedures, etc. Students should study daily to be prepared for all potential quizzes. The teacher reserves the right to administer a different make-up quiz.

**AP Environmental Science Exam**

Students are required to take the AP Environmental Science Exam at the end-of-the-school year. The 2018-2019 APES Exam will be administered on Monday, May 6. The APES Exam is a 3-hour test that is composed of two sections. The first section contains 100 multiple-choice questions, and the second section contains 4 free response questions.

**Grading Scale**

All students will be rewarded the grade he/she EARNS. The AP Environmental Science instructor does not “give out” grades. The grades will be determined using a total points systems. Grades will be rounded up at or above the .5 mark. For example, an 89.4% is a “B”; however, an 89.5% is an “A”.

A: 90-100%

B: 80-89%

C: 70-79%

D: 60-69%

F: 59% & below

**Study Techniques**

The most common problem that students who are new to AP courses deal with is that their study skills are not adequate for the rigor of these courses. Studying for these classes involves more than just “cramming the night before a test.” The following are suggestions to improve your grade in AP Environmental Science and other high school courses.

1. Prepare for class before coming to class by reading over the sections of your text that will be covered in that lecture.
2. Read over your notes shortly after you have written them. (Suggestion: It also helps to rewrite your notes and organize them in a manner that works best for you!!)
3. Make and use a vocabulary list as you go.
4. Complete ALL worksheets, study questions, note guides, etc. (Suggestion: Complete these on your own! Try answering what you can without an additional aid first, then use your notes and textbook for those questions that you could not figure out!)
5. Keep your hand-outs, board notes, publisher notes, study guides, diagrams, etc. organized in your class binder.
6. Always read assigned material and make sure you outline ALL the main ideas (not just a single item in a section).
7. Pay attention and don’t daydream in class.
8. Study frequently and in small doses. Cramming does not foster long term understanding that will stick with you!!!
9. Set up a study group and study with friends/classmates on a regular basis.
10. Understand figures and diagrams from the lectures and your text. If you do not understand them, ASK! (Suggestion: Coloring figures and diagrams can help you understand and remember them better!)
11. If you are having trouble with the material, get help EARLY. Do not wait until TEST DAY!!!

**Classroom Rules**

1. Be in your seat ready to work **BEFORE** the tardy bell rings!! Take care of your business (bathroom, locker, etc.) BEFORE you come to class!
2. Put AWAY cell phones!! You will NOT need your cell phones for academic uses, so they should be completely out of sight during class!
3. Put AWAY all headphones, music players, etc. You are not allowed to have your headphones in while you are in class, unless you are instructed that it is okay!
4. RESPECT!! This includes ALL forms of respect; respect yourself, respect your teacher, respect your classmates, respect your surroundings, respect all lab equipment, etc.!
5. Work ONLY on BIOLOGY while in my classroom!
6. Don’t close up early, I will dismiss you from class!
7. Leave the classroom in the same condition as it was when you walked in! This means push your chairs up under the desk when leaving, put all books and/or equipment back where you got them from, and clean up your space by wiping up any liquids or messy materials and throwing away all trash!
8. Check Google Classroom, your school e-mail, and our class website REGULARLY to stay up-to-date!!
9. Follow ALL school policies and procedures!!!

**\*\*\*The AP Environmental Science Instructor reserves the right to adapt this course syllabus as deemed necessary!\*\*\***