

ENVIRONMENTAL SCIENCE: COURSE OUTLINE AND POLICIES

Teacher: Mr. Adams

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Class Website: <http://www.avpanthers.org/science/Default.html#>

Course Description: The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies that are required to understand the interrelationships of the natural world. With this understanding, students will be able to identify and analyze environmental problems, both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them.

Textbook: Living in the Environment, Miller (2000)

Pre-requisites: Due to the quantitative analysis required in this course, students should have a solid foundation in biology and chemistry and have completed at least one year of algebra. Admission to an AP course ordinarily depends on the student's interest in the subject as well as on a superior academic record. Experience has shown that the most successful students in AP courses are those who are both well-prepared and highly motivated.

AP Exam: You are encouraged to take the AP Environmental Science Exam given in May. This exam is three hours in length and consists of two parts:

- 1) a multiple-choice section comprised of 100 questions and forming 60% of the grade, and
- 2) a free-response section comprised of 4 free-response questions and forming 40% of the grade.

The multiple choice section is designed to cover the breadth of your knowledge and understanding of environmental science and includes thought provoking problems and questions based on fundamental ideas from environmental science as well as questions based on the recall of basic facts and major concepts. The free-response section emphasizes the application of principles in greater depth; you will need to organize answers to broad questions, demonstrating reasoning and analytical skills, as well as the ability to synthesize material from several sources into a coherent essay.

Homework: The textbook for this class is a college-level textbook. This means that the print is small, the pages are dense with information, and the book is thick! There's no way that you will be able to read and understand everything in this textbook in 2 semesters. In order to guide your reading, you will be provided with problem sets that cover a particular chapter and your tests will be based on the concepts covered in these problem sets. You will also be provided with 4 sample essay questions and one of these questions will appear on tests. Your success on these tests will depend on how well you **learned** the material covered in the problem sets and whether you practiced writing the essay questions.

The other half of your homework will be related to researching and writing on environmental-related topics, writing lab reports based on class investigations, and developing and conducting an independent research project. A computer and internet access outside of class will be required to complete these assignments. You may need to arrange time before or after school to use the school library if you do not have this resource at home.

Late homework will receive partial credit (grades on late work will be lowered one full grade each day late).

Work missed due to illness or special circumstances needs to be made up within the number of days the student was absent. It is the student's responsibility to ask for and turn in work after an absence. Homework assignments will be posted regularly on the class website.

Copying: Students who copy work, or helps another student copy work, will receive a score of zero.

Materials: Students must bring the following materials everyday to class.

- | | |
|----------------------------|---------------------------------|
| 1. Three-ring Binder | 4. Two sharpened #2 pencils |
| 2. Ruled (lined) Paper | 5. Science composition notebook |
| 3. Pen (black or blue ink) | 6. Textbook |

AP ENVIRONMENTAL SCIENCE GRADING POLICY

Grading: Your **final** grade will be based on a total point system. At any time you may calculate your grade by totaling the number of points you have earned and dividing your total by the total points possible. Your learning will be assessed based on the following types of assignments:

Tests: 100 points each (Approx. 3+ per quarter)

Tests will be a combination of multiple choice, short answer, essay and diagram questions, and will cover 2-3 or more chapters in your textbook. There will frequently be calculations as well. Your tests are designed to closely resemble AP exams in terms of format, pacing and difficulty.

Labs: 20 points each (4 graded per quarter)

We will be doing labs on a regular basis throughout the year. Labs are designed to provide the opportunity to gain practical skills such as designing experiments, analyzing and interpreting data, and preparing reports to share findings with the scientific community. Each grading period, I will select 2-4 labs to grade as a representative of your lab performance. At the end of the year, students will design and execute their own scientific experiment or study to address an environmental problem or question. This report and presentation will be worth 2 regular labs.

Problem sets: 20 points each (Due test days):

For each unit of study, I will prepare a set of problems and comprehension questions to guide your thinking as we learn the material. You are expected to work on this every night as your regular homework. It will be due on the day of the test. It is your responsibility to ask for help if there is any question you do not understand. This assignment is to be completed individually by each student. You may not copy another student's work.

Abstract/React: 20 points each (Due last school day of every month)

Each month you will be asked to read one news article related to any issue in environmental science that interests you. You need to write a concise abstract of the most pertinent facts in the article, and a 1 page reaction "editorial" or essay about YOUR feelings concerning the topic (See attached Handout)

Species of Interest: 20 points (One per quarter)

Once per quarter you will research and prepare a brochure or presentation to raise awareness about a rare, threatened, or endangered species. Your brochure or presentation must include common and scientific names, life history traits, the nature of the threats, why the species is important, and what can be done to protect it. At least one species that you choose must be a plant and two species must be from your home region.

Weekly Quiz: 10 points each (Every Monday)

Every Monday we will begin class with a short quiz over material that was covered the previous week. These will consist of 2-5 questions and should take no more than 10-15 minutes to take. We will peer-grade in class immediately after taking the quiz. This will allow you more feedback on your comprehension of the concepts we are learning as we go, so you may better prepare yourself for unit tests.

Each quarter will accumulate between 500 & 600 points depending on the frequency of each assignment.

Grading scale

A 90-100%

B 80-89%

C 70-79%

D 60-69%

F 0-59%

Classroom Rules, Routines and Policies:

Following these rules, routines, and policies will create a professional education environment that enhances the achievement of academic success. This is the goal. Enforcement of these rules takes away from already limited instruction time. Violations will result in parent contact, detention during which students are expected to work in the classroom or garden area, and if repeated, administrative referral.

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1. Show respect for everyone in the classroom. If you feel that the actions or words of another person is disrespectful, sexist, racist, or homophobic, please bring it to my attention and not to the attention of the entire class.
2. Show respect for other people's property, including the school's. Your parents/guardians will be held responsible (\$) for any school property that is damaged or destroyed by your negligence or direct intent.
3. You must be in your assigned seat and have your materials (i.e. binder, pencil) ready to go when the bell rings. Once the bell rings, read the agenda on the board and start working on the bell-ringer activity.
4. Late homework will receive partial credit. Grades on late work will be lowered one full grade each day late.
5. Copying work, or helping another student copy work, will result in a zero on that assignment.
6. Missing a test or class assignment due to an unexcused absence will result in a zero score. If your absence is excused, it is up to you to schedule a time to retake a quiz or test within one week of returning.
7. Electronic devices must be put out of reach (e.g. backpack) while in class unless I specifically give you permission to use it during class. If you are asked to hand over the device, please do so immediately. Arguing about it will only make matters worse.
8. Students are expected to participate and to do their part in group labs and activities. Refusal to participate or follow safety procedures will result in suspension from class and a zero score for that assignment.
9. All school-wide rules and consequences will be enforced.

I have read and understand the rules and expectations listed above.

Student Signature _____ Date: _____

Parent/Guardian Signature _____ Date: _____