

Advanced Placement Environmental Science

When we try to pick out anything by itself we find it hitched to everything else in the universe.

~John Muir

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Course Description

The Advanced Placement Environmental Science (APES) course is designed to be the equivalent of a one-semester, introductory college course in environmental science. APES is interdisciplinary and includes geology, biology, meteorology, oceanography, physics, chemistry, and geography. It is a rigorous science course that stresses scientific methodology, principles, analysis, discussion of the various topics and issues in environmental science and examines solutions for the prevention, mitigation, or remediation of those issues. This course lends itself to lively discussions, empowering students with scientific knowledge about the environment and encouraging them to believe that one person truly can make a difference.

Course Prerequisites

The course is designed for 11th grade students who have successfully completed biology and chemistry (or equivalent). It is strongly recommended, in addition, that students have successfully completed at least one year of algebra. Students who have not met these prerequisites may struggle with the math we use during this class.

Required Text & Readings:

Students will be issued a copy of *Environmental Science for AP** (third edition) by Friedland/Relyea. Students are financially responsible for this textbook, and it should be returned at the end of the school year in the same condition that it was issued (aside from reasonable wear and tear). If the textbook is lost or damaged, the student will be responsible for the cost of replacing the book (about \$160). If a textbook is lost during the year, a replacement will not be issued until payment is made. Many students find that one of the various AP Exam review books is helpful. I have older versions you can borrow.

Classroom Policies

All school rules and regulations will be enforced according to the policies of Chapel Hill-Carrboro City Schools and of Carrboro High School. Students are responsible for knowing these policies – ignorance is not an excuse.

Students are not required to agree with everything that is said in class, but they are required to acknowledge that other people have the right to speak their mind without persecution. However, derogatory, discriminating, or offensive language will NOT be tolerated. There are better, more intelligent ways of expressing yourself.

Classroom cell phone use

Cell phones should not be visible or used in class unless specified by the teacher. If a cellphone is out, I will ask the student to put it away. If I have to ask again, then I will keep it for the rest of class. If the phone is not surrendered, an administrator will be called and they will take it for the rest of the day. If cell phone use continues to be a problem, the behavior will be reported to our admin team as per the CHS code of conduct.

Getting help

We expect students in AP courses to learn much more independently than in other courses. You will learn much of the course content by reading the book and watching presentations outside of the school day. Class time will be for discussions and working on projects. The best way to learn is to become engaged in class. Engage in our class discussions! But when you need help be sure to reach out

- 1) **Call a study buddy** - It is very helpful to know a couple people in your class who you can ask questions.
- 2) **Ask questions at the end of EdPuzzle videos** - I will respond via email to all serious questions that you have
- 3) **Ask questions during class** - This might be during the big group discussion or while in your breakout groups.
- 4) **Sign up for Flextime**
- 5) **Send Mr. Klakovich an email** - Because of the fast pace of this course, I understand that some questions can't wait

Assignment Descriptions:

Summative assessments (50% of your grade)

These graded assignments are opportunities to show me what you have learned in class. These will include all tests and quizzes and some major projects and presentations

Tests and Quizzes

Multiple choice quizzes will be given weekly. There will be a written test at the end of each unit. Tests will include free response (essay) questions similar in rigor to the AP Exam that you will take in May as well as multiple choice.

Projects / lab reports / presentations

These major assignments encourage you to think critically and to communicate what you have learned. You will be expected to analyze and interpret data, graphically present your ideas, apply concepts and propose solutions to environmental problems. These major assignments are graded with a rubric and you will receive feedback. If they will be counted as a major summative assignment, you will have an opportunity to redo them.

Formative assignments (50% of your grade)

These important assignments are meant to teach you the material so that you can do well on the summative assessments above. It is highly recommended that you do all of these assignments! These kinds of assignments give you opportunities to practice working with new concepts before a test or project. In order to improve your grade on summative assessments, you will need to have first completed all of these formative assignments.

Step-ups

In order to develop a sense of stewardship and give you an opportunity to put classroom skills and knowledge into action, students will be required to complete 4 hours of environmental community service each quarter. (These hours will count for APES only and not for any other community service requirement)

Keep-ups (current event articles)

Keep-ups encourage you to read and learn about environmental science in the world around you. They will give you an opportunity to see the relevance of what we are learning in class. About every two weeks, you will find a recent article that has something to do with the content of our current unit. After reading it, you will write a three paragraph paper that includes a summary, how it connects with our class content and a personal reaction.

Activities / simulations/ extra reading

We will do a wide assortment of activities in this course. Most will be done during class time but some will be done or finished outside of class.

Textbook notes

You are responsible for reading and taking notes on all assigned modules. Quizzes will be based on these readings. Notes will be turned in so I can give you feedback on your technique.

Online presentations

We will NOT spend much time during class learning new material so it will be very important to watch all assigned presentations and videos outside of class. In each video, there will be opportunities to ask questions. This is a great way to get some of your questions answered.

Late work

Productive class discussions and activities depend on students doing the required work before class. It is extremely important that you keep up with all assigned work. Work turned in more than two weeks late or after the unit test will be scored 50%. All missing work, even if the minimum score is received, must be completed before students can have the opportunity to improve scores on summative assignments. Exceptional circumstances may warrant an extension on assignments but these need to be discussed early (not the day before it due)

Academic Integrity

Be sure to read our district's Academic Integrity Policy. Academic integrity violations will not be tolerated, and appropriate actions will be taken. Keep in mind, students who plagiarize or cheat while attending college have been expelled and their academic files permanently marked.

ChatCPT and other AI tools

I understand the lure of using programs like ChatGPT and I have experimented with them myself. But when students use these tools and pass it off as their own work, it is plagiarism and I will file an official report. **USE YOUR OWN WORDS!** I'd much rather read your own "imperfect" words, than some ill matched for the assignment AI drivel. Keep your integrity intact!

Submission of electronic work

When turning in written work electronically, all of your work must be created using ONE google doc. Do not start one document and paste sections to another. When collaborating with other students on one paper, all students should add to one shared original document that is the one that is submitted. No pastes from other documents. Documents with large pastes will not be accepted.

Submission and formatting of Assignments, Papers, and Labs

All of your electronic work will be submitted to CANVAS. You will need to be using your school gmail account to gain access. All typed or electronically submitted assignments should be double-spaced, using a 12-point font, with 1-inch margins. Sources properly cited when appropriate.

For all calculations, students should show how their answer was derived. This requires showing the proper setup and appropriate units for full credit. Students **will** be allowed to use calculators during tests, quizzes, and the AP exam in May.

While taking quizzes or tests

Cell phones must be turned OFF and all tabs and other apps on your computer closed. *Students suspected of cheating will be referred to the administration who will then determine if there was a violation of CHS's academic integrity policy.*

The AP Exam

The AP Exam has been prepared by environmental scientists and educators in both breadth and level of detail, to reflect the content of what is found in many introductory college courses in environmental science, and is considered appropriate for measurement of the skills and knowledge in environmental science. Students enrolled in the course are required to take the AP Exam in May. The district will pay for the cost of the exam but not for a retake if the exam is missed. Students enrolled in APES will be automatically signed up for the exam. There will be a presentation in early spring to answer questions about testing procedures.

Content we will cover this year

Your textbook was specifically designed to prepare you for the AP exam. If it is in the text, it may be on the exam in May, and you are responsible for knowing it. [HERE is a link](#) to the college board outline to the course.

AP Environmental Science Safety Contract on the next page!

AP Environmental Science Safety Contract

Policies & Procedures

The policies and procedures stated herein are designed to ensure our students' success and their enjoyment of this course. Please read them thoroughly and let me know if you have any questions.

Science is a hands-on class. Safety in the science classroom is the #1 priority for students, teachers, and parents. As part of our school's commitment to promote and protect the health and safety of our students, our employees and the environment, the Science Department has developed and implemented the following rules and policies for lab safety. (Additional safety instructions may be given for individual labs)

1. Follow all written and verbal directions carefully. Ask questions if you do not understand the directions.
2. No horseplay! Appropriate behavior and use of equipment is required at all times.
3. Do not touch anything in a science room until instructed to do so.
4. Eating, drinking, and chewing gum is not allowed during labs. Never taste or smell anything during a lab unless told to do so.
5. Wear goggles when indicated – No exceptions to this rule!
6. Keep your area clean and neat. Keep aisles clear – push chairs in when not in use.
7. Perform only those experiments authorized by the teacher.
8. Learn where the safety equipment is located (extinguishers & eyewash) and learn how to use them.
9. Know where exits are located and what to do in the case of a fire drill.
10. If you will be outside in a watery environment, take care to avoid drowning.
11. Accidents happen. Report all accidents and/or injuries to your teacher immediately.
12. Clean, rinse, & wipe dry all work surfaces and equipment at the end of the lab. Return all equipment to its proper place. Follow directions for the disposal of lab materials.
12. Keep hands away from face, eyes, mouth & body when using chemicals, preserved specimens, plants or animals. Wash hands with soap & water after cleanup is done.
13. Be careful with glass. If breakage occurs, immediately inform the teacher.
14. Be knowledgeable of what venomous animals and poisonous plants live in this area and know how to identify them. Take precautions to avoid contact.
15. No system of rules can provide for every situation. Use common sense at all times.

AP Environmental Science Safety Contract
Carrboro High School
Mr. Klakovich