

**Course Description**

The AP Environmental Science (APES) course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of the APES 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 and/or preventing them. Students are expected to take the APES exam, given in May, for which they may receive university credit.

**Recommended Prerequisites**

APES students should have successfully completed Honors Biology, Honors Chemistry, Common Core II and English 10.

**Grading Policy & Attendance**

Quarter grades are issued with the following criteria: Tests 40%, Labs 30%, Projects 25% and Service Hours 5%. The final exam will count 20% of the final course grade. In accordance with WCPSS, the following grading scale is used: A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = less than 60. **All late work is graded at 50% credit.** Attendance will be documented as per WCPSS policy.

**Online Resources**

Class announcements, lecture notes, a notebook checklist and much more are available to all students and parents at [www.sciencrush.net](http://www.sciencrush.net). Check the website daily to get the latest updates and due dates. Daily reminders are available through twitter by following [@sciencrush](https://twitter.com/sciencrush). Grades are posted for students and parents through PowerSchools. Email ([brush@wcpss.net](mailto:brush@wcpss.net)) is the most efficient form of communication for any questions or concerns. All GH and WCPSS behavior policies apply to virtual learning. The textbook, available digitally, is *Living in the Environment*, 16<sup>th</sup> edition, by Miller and Spoolman (ISBN#0-495-55671-8). A hard copy is available on request.

**Field Experiences and Community Service**

APES has a strong field component, and students are required to participate in field experiences. Students will need to dress for the weather and protect themselves from insects. When at school, a cabinet for “stream boots” is provided in the classroom. While at home, students will still be expected to go outside to complete some labs and projects. Students may get a little hot, a little cold, or a little wet, all in the name of science!

With stewardship as an important component of APES, each student is required to complete 8 hours of environmental community service. Four hours are due each quarter with additional hours in the third quarter rolling over to the fourth quarter. Students completing events not sponsored by Green Hope must fill out a service form and attach a photo. While students are still encouraged to safely complete service hours in the community, online options are available due to COVID. Visit <https://www.zooniverse.org/projects> and make an account. Your username must be *Last Name.First Name.Teacher Name.Period* (for example, *John.Smith.Rush.4*). Select a project from the Biology, Climate or Nature categories. When you are ready to submit your hours, click on your profile in the upper right corner and select “HOME” - take a screenshot showing how many classifications you have made. You need 90 identifications per hour of service.

**SMART Lunch**

Each teacher is available to meet with students during SMART Lunch to assist with make-up work and/or provide extra help. Each student is expected to participate in at least four SMART Lunch sessions per quarter. Students who attend two SMART Lunch sessions prior to interims and two SMART Lunch sessions after interims will receive a 100 lab grade.

**Course Outline****1<sup>st</sup> Quarter**

3-8 Ecosystems, Evolution, Populations and Biomes

9-13 Species Approach, Sustaining Biodiversity, Food and Water Resources

**2<sup>nd</sup> Quarter**

14-19 Geology, Energy Resources, Human Health, Air Pollution and Climate Change

20-24 Water Pollution, Solid Waste, Cities, Economics and Politics