

AP Environmental Science Course Expectations

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Course Description

Advanced Placement environmental science is a yearlong (2 semester) high school course that addresses the topics covered during a semester long introductory college course in environmental science. Students who pass the AP exam at the end of the yearlong high school course are eligible to receive college credit. In this case, credit for the equivalent of an introductory college course in environmental science is usually granted to students who pass the exam. This is a great benefit to a first-year college student in terms of both time and money saved.

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. The outline of topics covered in this course is presented in the AP Environmental Science Course Framework on Page 3.

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 studied in environmental science. Students will connect to the themes addressed in this class in a variety of ways including: reading and writing, collaborating in peer groups, laboratory investigations, activities and simulations, completing math problem sets, on and off campus field investigations, and Internet research. Students are expected to study the AP environmental science textbook, as well as other resources. Finally, upon completion of each chapter and/or unit of study (or as needed), students will take rigorous tests and quizzes that model the AP Exam.

Textbooks:

- Living in the Environment, Miller, G. Tyler, 17th ed., Brooks/Cole Publishing Co. 2012.
- Environmental Science; AP Course 3rd ed., Friedland and Relyea, Bedford, Freeman, and Worth Publishing Co., 2019.
Students will have access to the online textbook.

Classwork and Homework

- Classwork and homework are assigned in class and posted on Schoology with due dates.
- Because this course maintains a steady pace, students are often expected to finish classwork for homework.
- The teacher reviews upcoming assignments on Schoology every day at the beginning of class to remind students of approaching due dates, quizzes, and tests.
- Unless stated otherwise, assignments are due at the beginning of the class period on the due date assigned.

Course Grading Structure

The gradebook is updated at least once per week and grades are posted to progress eligibility on Infinite Campus every Monday morning. Students are expected to use Infinite Campus to track their grades and to resolve any late/missing assignments, or concerns they may have about their grade with their teacher immediately. It is important to know that a zero in Infinite Campus means the assignment was not turned in.

Each semester your grade will be calculated using the following weighting percentages:

Product: Tests, quizzes, projects, and final exam.....60%

Process: Assignments, labs, and activities40%

Final Exam: At the end of each semester students will take a comprehensive final exam that assesses all of the material covered throughout the semester. The final exam is weighted as 15% of the student's overall average.

The grading scale in this class follows:

A 90-100% B 80-89% C 70-79% D 60-69% F-59% and below

Earning Required Credits Towards Graduation: A minimum average of 60% is required to earn credit for each semester (5 credits per semester, 10 credits per year). 30 credits of science are required to graduate from DPS high schools.

THIS IS REALLY IMPORTANT!!!!!! → NOTEBOOKS, LABS, PAPERS, AND COLLEGE CREDIT

Colleges may require students to present their notebooks, laboratory worksheets, reports, research papers, and other materials from AP science courses before granting college credit. To this end, students are encouraged to retain their notebooks, laboratory worksheets, reports, research papers, and other materials in a binder and/or electronically in a specifically named folder.

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Policies & Guidelines

- **When to Talk to Your Teacher:** Teacher-Student conversations regarding absences and/or student grades should take place at lunch, after school, or by email and not during class or passing period. Your teacher has no obligation to discuss make-up work during class or passing period.
- **Make-Up Work is the Students Responsibility:** It is the student's responsibility to determine their make-up work and/or missing assignments.
- **Planned Absences:** Students that are planning an absence need to have a discussion with the teacher to determine what they are going to miss and plan with the teacher how the work will be completed and when it will be due.
- **Unexpected Absences Due to Illness or Emergencies:** In the case of an unexpected absence, students should check Schoology to determine what they've missed. Then follow-up with the teacher to obtain materials, if needed, discuss due dates, and ask questions about the assignments.
- **Follow-Up on Absences Immediately:** Students are expected to follow up with their teacher about unexpected absences on the day they return to school and complete the assignments, labs, quizzes, or tests within the timeframe of the DPS Make-Up Work Policy. It is especially important to make-up labs immediately upon returning to school because they will only be set-up for a few days after the initial lab period.
- **DPS Make-Up Work Policy:** Students have the number of days they were absent, plus one day to complete make-up work (DPS Policy). For example, a student that was absent for two days has two days plus one day, which equals three days to complete the work they missed.
- **Late Work Penalty—50% Off the Grade Earned:** All assignments that are not turned in by the due date, including due dates that were negotiated because of an excused absence are considered late. All late work, regardless of whether it is one or five days late are accepted for 50% off the grade earned. Work that is turned in late from unexcused absences are accepted for 50% off the grade. If the student missed the class but was at school that day, all assignments due that day are still required to be turned in. If the assignments are turned in the next day, the work is considered late at 50% off. Finally, late-work is only accepted from the current unit of study; i.e. assignments from previous units are not accepted.
- **Speak Up If You're Having a Hard Time!** Please speak to you teacher if you have encountered a hardship and wish to request more time to complete an assignment. If there is something interfering with your ability to complete work on-time, or at all, in the short or long term, the first step is always a conversation with your teacher who will make reasonable accommodations for a short-term situation, or will help implement further strategies or interventions if there is an ongoing situation.
- **Extra Help and Support:** Your teacher will be available for extra help almost every day during lunch and by appointment after school. Additionally, students should use office hours to conference with their teacher. Please feel free to come by whenever you have a question.
- **Do Not Skip Tests!** If the student misses a test due to an absence, the student needs to arrange to take the test as soon as they return to school. If a test is not made up in the appropriate timeframe, a zero will be entered in the gradebook.
- **Online and Paper Assignment Expectations:** Online assignments are expected to be turned in online and paper assignments are expected to be turned on paper. If a student prints a Schoology assignment and turns it in, it will not be graded. Similarly, if a student emails a picture of a paper assignment to the teacher it will not be graded.
- **Academic Honesty:** Copying another students work is not acceptable. When the teacher encounters work that has obviously been copied from another student, it will not be graded and a zero will be entered into the gradebook for the assignment, for both students. Additionally, copying and pasting from the internet is plagiarism, and is unacceptable. When the teacher encounters work that has obviously been copied from the internet, it will not be graded and a zero will be entered into the gradebook. For academic writing assignments—such as research papers—when writing information and ideas that are not your own, you must give credit to the author(s) by citing sources.

Expectations for Appropriate Student Conduct

- A general guide to student conduct is summarized with the **5 P's**—*Positive, Polite, Prepared, Prompt, Productive*
- Students who interfere with or disrupt the learning process will receive written or verbal warnings and calls home.
- In addition, interventions requiring meetings and restorative conversations may be necessary to determine the best path forward for students that habitually disrupt the learning environment.
- Meeting may involve: student/teacher, student/teacher/administrator, or student/teacher/administrator/parents.

Required materials:

- Spiral notebook, college-ruled
- Pens/pencils and Erasers
- Calculator

Optional materials:

- *Graphing notebook with 4 squares per inch (or loose-leaf graph paper)*
- *Highlighter(s)*

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Topics may not allow follow the sequence outlined below.

AP Environmental Science Course Framework	
Unit 1: The Living World: Ecosystems <ul style="list-style-type: none">1.1 – Introduction to Ecosystems1.2 – Terrestrial Biomes1.3 – Aquatic Biomes1.4 – The Carbon Cycle1.5 – The Nitrogen Cycle1.6 – The Phosphorus Cycle1.7 – The Hydrologic (Water) Cycle1.8 – Primary Productivity1.9 – Trophic Levels1.10 – Energy Flow and the 10% Rule1.11 – Food Chains and Food Webs	5.14 – Integrated Pest Management 5.15 – Sustainable Agriculture 5.16 – Aquaculture 5.17 – Sustainable Forestry
Unit 2: The Living World: Biodiversity <ul style="list-style-type: none">2.1 – Introduction to Biodiversity2.2 – Ecosystems Services2.3 – Island Biogeography2.4 – Ecological Tolerance2.5 – Natural Disruptions to Ecosystems2.6 – Adaptations2.7 – Ecological Succession	Unit 6: Energy Resources and Consumption <ul style="list-style-type: none">6.1 – Renewable and Nonrenewable Resources6.2 – Global Energy Consumption6.3 – Fuel Types and Uses6.4 – Distribution of Natural Energy Resources6.5 – Fossil Fuels6.6 – Nuclear Power6.7 – Energy from Biomass6.8 – Solar Energy6.9 – Hydroelectric Power6.10 – Geothermal Energy6.11 – Hydrogen Fuel Cell6.12 – Wind Energy6.13 – Energy Conservation
Unit 3: Populations <ul style="list-style-type: none">3.1 – Generalist and Specialist Species3.2 – K-Selected r-Selected Species3.3 – Survivorship Curves3.4 – Carrying Capacity3.5 – Population Growth and Resource Availability3.6 – Age Structure Diagrams3.7 – Total Fertility Rate3.8 – Human Population Dynamics3.9 – Demographic Transition	Unit 7: Atmospheric Pollution <ul style="list-style-type: none">7.1 – Introduction to Air Pollution7.2 – Photochemical Smog7.3 – Thermal Inversion7.4 – Atmospheric CO₂ and Particulates7.5 – Indoor Air Pollutants7.6 – Reduction of Air Pollutants7.7 – Acid Rain7.8 – Noise Pollution
Unit 4: Earth Systems and Resources <ul style="list-style-type: none">4.1 – Plate Tectonics4.2 – Soil Formation and Erosion4.3 – Soil Composition and Properties4.4 – Earth’s Atmosphere4.5 – Global Wind Patterns4.6 – Watersheds4.7 – Solar Radiation and Earth’s Seasons4.8 – Earth’s Geography and Climate4.9 – El Niño and La El Niña	Unit 8: Aquatic and Terrestrial Pollution <ul style="list-style-type: none">8.1 – Sources of Pollution8.2 – Human Impacts on Ecosystems8.3 – Endocrine Disruptors8.4 – Human Impacts on Wetlands and Mangroves8.5 – Eutrophication8.6 – Thermal Pollution8.7 – Persistent Organic Pollutants (POP’s)8.8 – Bioaccumulation and Biomagnification8.9 – Solid Waste Disposal8.10 – Waste Reduction Methods8.11 – Sewage Treatment8.12 – Lethal Dose 50% (LD₅₀)8.13 – Dose Response Curve8.14 – Pollution and Human Health8.15 – Pathogens and Infectious Diseases
Unit 5: Land and Water Use <ul style="list-style-type: none">5.1 – The Tragedy of the Commons5.2 – Clearcutting5.3 – The Green Revolution5.4 – Impacts of Agricultural Practices5.5 – Irrigation Methods5.6 – Pest Control Methods5.7 – Meat Production Methods5.8 – Impacts of Overfishing5.9 – Impacts of Mining5.10 – Impacts of Urbanization5.11 – Ecological Footprints5.12 – Introduction to Sustainability5.13 – Methods to Reduce Urban Runoff	Unit 9: Global Change <ul style="list-style-type: none">9.1 – Stratospheric Ozone Depletion9.2 – Reducing Ozone Depletion9.3 – The Greenhouse Effect9.4 – Increases in Greenhouse Gases9.5 – Global Climate Change9.6 – Ocean Warming9.7 – Ocean Acidification9.8 – Invasive Species9.9 – Endangered Species9.10 – Human Impacts on Biodiversity