

AP Environmental Science 2025-26

Mrs. Starla Erickson room #301

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Google Classroom Code: kpouoapz

Course description

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the inter-relationships of the natural world, to identify and analyze environmental problems both natural and man-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. In this course, students are taught to analyze and interpret information, learning how to identify resolutions, prevention, and sustainability. Environmental Science is an interdisciplinary field: it encompasses a wide range of topics from various 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:

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

Philosophy / Approach

Since this course is a laboratory and field-based course, the teaching of it takes advantage of local environments and resources. While West Georgia does not have marine environments, estuaries, and coniferous forests, it does have deciduous forests, river systems, and clearly defined watersheds. Therefore, laboratory activities that are conducted outside and are consequently dependent on the weather have to be performed at certain times during the year. Examples of this would be water quality testing, soil analysis, testing ozone levels, and biodiversity. The topics in AP Environmental Science do not lend themselves to short-term memorization of facts. The emphasis of the course is on the understanding of systems and processes.

Resources

Text: *Friedland and Relyea Environmental Science for AP 4th Edition*

Google Classroom

College Board AP Classroom

**College Board Account: If you have taken an AP class, you have an account. Log in and proceed to AP Classroom (below). If you are new to A, you will have to create an account; follow the steps in the link below.*

MAKE SURE AND WRITE DOWN YOUR LOG IN INFORMATION

<https://account.collegeboard.org/login/signUp>

Course Grade Assessment

- ❖ Tests-Multiple Choice, Free Response Questions
- ❖ Homework, Chapter Reviews
- ❖ Lab Reports
- ❖ Field Work
- ❖ Online Journal

Summative (tests, quizzes, lab reports, projects) 60%

Formative (daily work, practice quizzes/FRQ's) 40%

Late Work Policy:

Students have 5 days to submit late assignments with a 10 point deduction per day. After 5 days, students can submit late work for a maximum grade of 50%.

Extensions will be given to students who contact me **before** an assignment is due to request one

Course Pacing:

Semester 1

Unit 0: Introduction to Sustainability
Unit 1: The Living World-Ecosystems
Unit 2: Water Resources and Water Pollution
Unit 3: The Living World-Biodiversity
Unit 4: Earth Systems and Resources Use
Unit 5: Human Population and Food Systems

Semester Exam

Semester 2

Unit 6: Waste Management and Toxicity
Unit 7: Energy Resources
Unit 8: Atmospheric Pollution
Unit 9: Global Change
Exam Review

APES National Exam or Semester Exam

Exam Scoring/Curve:

It is important for students and parents to understand the AP scoring system.

- The national exam is scored on a 5-point scale.
- Typically, a score of 3, 4, or 5 will earn college credit.
- The APES exam is 130 points; below is a *general* breakdown of "cut" scores.
98-130 = 5 (75%-100%)
85-97 = 4 (65% -75%)
78-84 = 3 (60%-65%)

In other words, a score of 60% on the national exam would earn you college credit! Therefore, your summative assessments (MC & FRQ) should align to these benchmark scores, and to ensure this, I have adopted the following test curve for all MC and FRQ exams

Tests are graded on a $\sqrt{X} \times 10$ scale.

Example: 81% test score = $\sqrt{81} = 9 \times 10 = 90\%$ / $\sqrt{64} = 8 \times 10 = 80\%$ / $\sqrt{49} = 7 \times 10 = 70\%$

AP Exam Preparation

This course will prepare students to take the AP Exam. The three-hour-long exam will be divided equally between a Multiple Choice (MCQ) and a Free Response Section (FRQ).

The multiple choice section consists of 80 questions and constitutes 60% of the final grade. The free response section includes 3 essays which emphasize the application of the principles to a greater depth and comprises 40% of the exam grade.

Section	Question Type	Number of Questions	Exam Weighting	Timing
I	Multiple-choice questions	80	60%	90 minutes
II	Free-response questions	3	40%	70 minutes
	Question 1: Design an investigation (10 points)			
	Question 2: Analyze an environmental problem and propose a solution (10 points)			
	Question 3: Analyze an environmental problem and propose a solution doing calculations (10 points)			

The AP National Exam Day is Friday, May 15, 2026 at 8am

Big Idea

BIG IDEA 1: ENERGY TRANSFER (ENG)

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 unusable.

BIG IDEA 2: INTERACTIONS BETWEEN EARTH SYSTEMS (ERT)

The Earth is one interconnected system. Natural systems change over time and space. Biogeochemical systems vary in ability to recover from disturbances.

BIG IDEA 3: INTERACTIONS BETWEEN DIFFERENT SPECIES AND THE ENVIRONMENT (EIN)

Humans alter natural systems and 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.

BIG IDEA 4: SUSTAINABILITY (STB)

Human survival depends on developing practices that will achieve sustainable systems. A suitable combination of conservation and development is required. The management of resources is essential. Understanding the role of cultural, social, and economic factors is vital to the development of solutions.

Topic Outline

The Living World: Ecosystems	6–8%
The Living World: Biodiversity	6–8%
Populations	10–15%
Earth Systems and Resources	10–15%
Land and Water Use	10–15%
Energy Resources and Consumption	10–15%
Atmospheric Pollution	7–10%
Aquatic and Terrestrial Pollution	7–10%
Global Change	15–20%

Science Practices

Practice 1	Practice 2	Practice 3	Practice 4	Practice 5	Practice 6	Practice 7
Concept Explanation 1 Explain environmental concepts, processes, and models presented in written format.	Visual Representations 2 Analyze visual representations of environmental concepts and processes.	Text Analysis 3 Analyze sources of information about environmental issues.	Scientific Experiments 4 Analyze research studies that test environmental principles.	Data Analysis 5 Analyze and interpret quantitative data represented in tables, charts, and graphs.	Mathematical Routines 6 Apply quantitative methods to address environmental concepts.	Environmental Solutions 7 Propose and justify solutions to environmental problems.
SKILLS						
1.A Describe environmental concepts and processes. 1.B Explain environmental concepts and processes. 1.C Explain environmental concepts, processes, or models in applied contexts.	2.A Describe characteristics of an environmental concept, process, or model represented visually. 2.B Explain relationships between different characteristics of environmental concepts, processes, or models represented visually: • In theoretical contexts • In applied contexts 2.C Explain how environmental concepts and processes represented visually relate to broader environmental issues.	3.A Identify the author's claim. 3.B Describe the author's perspective and assumptions. 3.C Describe the author's reasoning (use of evidence to support a claim). 3.D Evaluate the credibility of a source (<i>not assessed</i>): • Recognize bias • Scientific accuracy 3.E Evaluate the validity of conclusions of a source or research study (<i>not assessed</i>).	4.A Identify a testable hypothesis or scientific question for an investigation. 4.B Identify a research method, design, and/or measure used. 4.C Describe an aspect of a research method, design, and/or measure used. 4.D Make observations or collect data from laboratory setups (<i>not assessed</i>). 4.E Explain modifications to an experimental procedure that will alter results.	5.A Describe patterns or trends in data. 5.B Describe relationships among variables in data represented. 5.C Explain patterns and trends in data to draw conclusions. 5.D Interpret experimental data and results in relation to a given hypothesis. 5.E Explain what the data implies or illustrates about environmental issues.	6.A Determine an approach or method aligned with the problem to be solved. 6.B Apply appropriate mathematical relationships to solve a problem, with work shown (e.g., dimensional analysis). 6.C Calculate an accurate numeric answer with appropriate units.	7.A Describe environmental problems. 7.B Describe potential responses or approaches to environmental problems. 7.C Describe disadvantages, advantages, or unintended consequences for potential solutions. 7.D Use data and evidence to support a potential solution. 7.E Make a claim that proposes a solution to an environmental problem in an applied context. 7.F Justify a proposed solution, by explaining potential advantages.

Important Reminders:

- Field work is a required and integral part of this course. Please be prepared to participate in outdoor labs and activities.
- Please inform me of any allergies or medical conditions that may impact your ability to work outside or handle lab materials.
- Students may revise their FRQs for up to half credit if submitted within one week of the original assessment.
- It is highly recommended that students keep all course materials, including lab reports, as many colleges may request them for credit or placement. Students will need a 1-inch 3-ring binder dedicated to this class.

Syllabus Acknowledgment – Please Sign, Cut, and Return

*By signing below, we acknowledge that we have read and understand the AP Environmental Science syllabus, including course expectations, grading policies, and classroom procedures. We also confirm that we have completed the Google Form, which can be accessed by scanning the QR code.

Parent/Guardian Signature

*Please scan and fill out the google form

Student Signature

<https://forms.gle/gXUceWY88wBck6tP8>

