



CHELMSFORD HIGH SCHOOL

AP Environmental Science SYLLABUS 2023-2024

COURSE DESCRIPTION

10 Credits (#26013), Grade 12, Lab-based

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. Coursework is designed to prepare students for the AP Environmental Science Exam in May. Students in this course should be prepared for some independent learning due to the volume of material covered.

Homework Requirements: Students are expected to read chapter material prior to in-class discussions, complete study guides, practice exams, and complete lab reports. Nightly homework can average 1 to 2 hours. **Summer homework will be required;** see the instructor for resources before the end of the school year.

Prerequisite: Advanced performance in CP or H Biology & CP or H Chemistry; Algebra proficiency, including scientific notation and dimensional analysis

REQUIRED TEXTS

Friedland/Relyea Environmental Science for AP, 978-0716738497

COURSE GOALS and STUDENT LEARNING OUTCOMES:

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography

COURSE STANDARDS

[College Board Course Description](#)

PERSONS WITH DISABILITIES

Chelmsford High School is committed to supporting the success and well-being of all students, regardless of varying abilities and levels of adaptive skills. The Special Education office provides services and resources to empower each student to attain their highest level of academic success and learning independence.

ACADEMIC INTEGRITY

At Chelmsford High School, students are expected to maintain high moral and ethical standards, as exemplified by the final sentence of our mission statement: *"A spirit of respect is fostered, as members take*

responsibility for their actions and acknowledge the rights and differences of others.” (CHS Mission Statement)

Students should respect themselves, other students, staff members and the school. The acts of cheating and plagiarism violate expectations that students will exhibit respectful, ethical behavior.

[The Academic Honor Code](#) exists to address the issues of cheating and plagiarism.

GRADING POLICIES

Please connect with individual teachers for specific information regarding grading. Students will be able to monitor academic progress biweekly through X2/ASPEN.

Students are strongly encouraged to take advantage of the academic support programs and services (such as PRIDE Block, after-school help, etc.) available to them to help ensure and support success. Information about these services can be provided by your teacher, guidance counselor, or administration.

COURSE SKILLS/Science Practices

Practice 1: Concept Explanation Explain environmental concepts, processes, and models presented in written format.

Practice 2: Visual Representations Analyze visual representations of environmental concepts and processes.

Practice 3: Text Analysis Analyze sources of information about environmental issues

Practice 4: Scientific Experiments 4 Analyze research studies that test environmental principles

Practice 5: Data Analysis Analyze and interpret quantitative data represented in tables, charts, and graphs

Practice 6: Mathematical Routines Apply quantitative methods to address environmental concepts

Practice 7: Environmental Solutions Propose and justify solutions to environmental problems

COURSE OUTLINE

APES is divided into 9 units:

Unit 1: The Living World: Ecosystems

Unit 2: The Living World: Biodiversity

Unit 3: Populations

Unit 4: Earth Systems and Resources

Unit 5: Land and Water Use

Unit 6: Energy Resources and Consumption

Unit 7: Atmospheric Pollution

Unit 8: Aquatic and Terrestrial Pollution

Unit 9: Global Change

This syllabus and course outline are subject to change as Chelmsford High School seeks to continually improve the learning experiences for all students.

“We foster PRIDE* in our pursuit of excellence.”

PRIDE refers to our five core values – Perseverance, Respect, Integrity, Dedication, and Empathy. These five pillars represent our points of emphasis in supporting the development of quality students and quality citizens.