



# CHELMSFORD HIGH SCHOOL

## ENVIRONMENTAL STUDIES CP SYLLABUS 2023-2024

### **COURSE DESCRIPTION**

This is a full year lab based elective course designed for students who intend to go to college as non-science majors. The course focuses on local, national and world sustainability of resources, such as conservation of material cycling, human and environmental influences, succession, and environmental problems. Students will demonstrate mastery of the concepts by addressing authentic issues that affect the world today through completion of a variety of group and individual projects, presentations, and other collaborative exercises.

*Prerequisite: Successful completion of Biology or Chemistry*

### **REQUIRED TEXTS**

Literacy based components for this course come from EcoRise and primary sources.

### **COURSE GOALS and STUDENT LEARNING OUTCOMES:**

By the end of the course, students will be able to...

- Master core concepts and methods from ecological and physical sciences and their application in environmental problem solving.
- Master core concepts and methods from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.
- Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.
- Understand the transnational character of environmental problems and ways of addressing them, including interactions across local to global scales.
- Apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.
- Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world.
- Demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, and written and oral communication needed to conduct high-level work as interdisciplinary scholars and/or practitioners.
- Evaluate the underlying reasons for differences, both real and perceived, between developed and developing countries with respect to causes, impacts, and possible solutions or compromises relative to issues of population growth, resource depletion, energy production and use, loss of biodiversity, pollution and waste production and disposal.

- Analyze statements made in support of various hypotheses and theories regarding the environment for opinion and/or bias to defend reasons for agreeing with or rejecting those statements.
- Evaluate controversial issues regarding the environment from different perspectives to defend a position.
- Draw conclusions by analyzing data from constructed or provided graphs and charts.
- Communicate ideas regarding the environment to others clearly and succinctly using relevant supporting evidence.
- Apply information learned in the course to new situations to develop or enhance critical thinking skills.

## **COURSE STANDARDS**

[\*\*DESE STANDARDS LINK\*\*](#)

## **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**

The following skills are addressed in this course:

### **Thinking and Communicating**

1. Read information critically to develop understanding of concepts, topics and issues.
2. Write clearly, factually, persuasively and creatively in Standard English.
3. Speak clearly, factually, persuasively and creatively in Standard English.
4. Use computers and other technologies to obtain, organize and communicate information and to solve problems.
5. Conduct research to interpret issues or solve complex problems using a variety of data and information sources.

### **Gain and Apply Knowledge in and across the Disciplines**

1. Gain and Apply Knowledge in:
  - a. Literature and Language
  - b. Mathematics
  - c. Science and Technology
  - d. Social Studies, History and Geography
  - e. Visual and Performing Arts
  - f. Health and Physical Education

### **Work and Contribute**

1. Demonstrate personal responsibility for planning one's future academic and career options.
2. Participate in a school or community service activity.
3. Develop informed opinions about current economic, environmental, political and social issues affecting Massachusetts, the United States and the world and understand how citizens can participate in the political and legal system to affect improvements in these areas.

## **COURSE OUTLINE**

### **Environmental Studies CP is divided into 3 main units:**

All units address different components of the United Nations World Sustainability Development Goals (2018)

- Aquatic Systems including;
  - Water quality, water conservation and management, water purification, aquaponic and hydroponic agriculture
- Terrestrial systems including;
  - Soil quality, soil and land conservation and management, and terraponic agriculture
- Atmospheric Systems including;
  - Air quality, pollution assessment and mitigation, and weather and climate

*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.**