Phone: 713-688-1361 **Website: www.houstonisd.org/waltrip**

AP Environmental Course Syllabus 2022-2023

Instructor: Mrs. Sutton-Wynn **Email**: Dsutton@hosutonisd.org **Room**: 2200

Office Hours: Monday (3:25pm-4:10pm) & Tues & Thursday (2:00pm-2:35 pm)

Wednesday & Friday (2:40pm -3:20pm)

Course Content

The course follows guidelines established by the College Board with the goal to provide students with scientific principles, concepts, and methodologies required to understand interrelationships in 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 alternatives for resolving and/or preventing them, including environmental policies and legislation.

Text

Textbook:
Environmental Science: For the AP Course by Friedland and Relyea (Published by Bedford, freeman & worth, 3rd edition, 2019). CR1

Supplemental materials:

- America's Environmental Report Card: Are We Making the Grade? by Harvey Blatt (Published by the MIT Press, 2nd Edition).
- AP Environmental Science Course and Exam Description by AP College Board (Fall 2019)
- Enviroliteracy.org at https://enviroliteracy.org
- HHMI BioInteractive at https://www.biointeractive.org/home

About the Teacher

I was born and raise in Florida. I graduated from Alabama Bama State University (Go Hornets) with a degree in Biology. I started my career in University admissions but quickly realized my passion for science education. I taught 8th grade science at Clifton Middle School for four years but transitioned to Waltrip High School in 2018. I live in the Houston area with my husband and two year old son.

Ongoing Objectives

- Students will be able to explore specific real-world environmental issues and gain an awareness of the science behind these issues. Students will explore the impact of our growing human population and understand that they have a stake in the future of the environment.
- Labs are conducted (exceeding the minimum 25% instructional time as required by the College Board). Some labs require individual research and data gathering and others have groups of 3–4 students work together. Ongoing field studies and long-term projects are incorporated into lab time.
- Students are expected to sit for the AP Environmental science exam on **May 2, 2023 at 8am**

Scientific Journal

- Students are required to keep and maintain their scientific journal that will be graded every 6 weeks. Students should keep notes, labs and activities in their notebook. We will set up notebooks in class.

Grading Scale

Exams	35%
Labs and Free Response Questions	30%
Daily Work/Homework/Quizzes	25%
Participation	10%

It is essential that you complete and turn in all assignments on time.
Late work must have parent form.

Tests:
All tests in this class will be timed. This is to prepare you for the AP Exam. Tests will be multiple choice and free response. It is my responsibility as an AP teacher to prepare students for the AP Exam. There will be a practice exam in April to help make sure you are ready.

Attendance and Participation
Attendance and participation are required; it is difficult to learn the content if you are not present in class. You class participation and attendance can be a deciding factor if your class average straddles two grades. Be sure to see me about any missed work if you are absent.

Daily Required Materials
1. laptop 2. pen 3. Science Journal 4. paper

APES Topic Outline
The following is an outline of the topics will be covered during this course. The percentages indicate the approximate emphasis that will be placed on that topic area both in this course and on the APES exam in May. The sequence of topics is approximate**.**

• Earth Systems and Resources (10-15%)
  - Earth Science concepts
  - The Atmosphere
  - Global Water Resources and Use
  - Soil and Soil dynamics

The Living World (10-15%)
  - Ecosystem Structure
  - Energy Flow

- Ecosystem Diversity
- Natural Ecosystem Change
- Natural Biogeochemical Cycles

Population (10 – 15%)

- Population Biology
- Human Population
- History, Birth Rate
- Death Rate, Demographic Transition, age-structure diagrams
- Population size and impact of population growth

Land and Water Use (10 – 15%)

- Food and Agriculture
- Forestry
- Rangelands
- Other Land Use (Urban development, transportation infrastructure, Public and Federal lands, Land conservation)
- Mining
- Fishing
- Global Economics

Energy Resources and Consumption (10-15%)

- Energy concepts , Laws of Thermodynamics, Conversions, Units, Energy Quality
- Energy Consumption: Past, Present, and Future
- Fossil Fuel Resources and use
- Nuclear Energy
- Hydroelectric Power
- Energy conservation
- Renewable Energy

Pollution (25-30%)

- Human Health and Toxicology
- Pollution types ϖϖ Air, Noise, Water, Solid and Toxic waste
- Economic Impacts

Global Change (10-15%)

- Strospheric Ozone
- Global
- Loss of Biodiversity