**Environmental Science**

**2015**

**Mr. Shaut**

**Course Objectives:** This course is designed to give the student a general overview of the principles of environmental science. We will discuss the interactions of the abiotic and biotic factors in the environment. We will also discuss the impact of humans on the environment, both positive and negative.

**Requirements:** All students are required to keep a notebook of the content delivered in class. A three-ring binder is essential for organizing the notes, handouts, and corrected tests and quizzes.

**Assignments:** Written homework and projects must be turned in on time. Homework is due the day after being assigned and **cannot** be made up unless the student has a legal excuse for the absence. If a test or quiz is missed, it is the student’s responsibility to make them up within three days of returning or a grade of zero will be earned for that assignment. Tests and quizzes will be made up by appointment with the instructor.

**Grading:** Averages will be based on a culmination of homework, quizzes, tests, and projects. The percentage break-down is as follows:

Tests/Projects- 40%

 Quizzes- 20%

 Labs/Activities- 30%

 Homework- 10%

**Expectations:** Personal integrity, responsibility, willingness to learn, and respect for self, property, and others.

**EVERY DAY:**

* **Be prepared to learn** with your required materials, a writing utensil, and a good attitude.
* **Be courteous** to others, their property, and the school property.
* **Be free of distractions** including electronic devices.

I have high expectations of all of my students, both academically and behaviorally. I ask for my students’ best effort in both of these areas. I expect that my students behave as mature young adults; that they are courteous to me and to each other. This not only serves to promote an environment that is conducive to learning, but also ensures a safe classroom. I do not tolerate behavior that compromises the safety or the dignity of the individuals in my charge.

**Course Overview:**

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| Unit | Topics | Approximate Time Frame |
| Unit 1: The Ecosystem | * Abiotic vs. Biotic Factors
* Trophic Levels
* Pyramids of numbers, energy, and biomass
* Biomes
* Limiting Factors
* Carrying Capacity
* Nutrient Cycling
* Succession
* Techniques for assessing environmental change
 | 6 weeks |
| Unit 2: Human Population and Resource Use | * Growth curves
* Predicting population growth
* Renewable, replenishable, and non-renewable resources
* Sustainability
* Soil systems
* Water resources
* Food resources
* Limits to human population growth
* Ecological footprint
 | 6 weeks |
| Unit 3: Conservation and Biodiversity | * Biodiversity in ecosystems
* The influence of evolution on biodiversity
* Conservation of biodiversity
 | 1 week |
| Unit 4: Pollution Management | * Sources of pollution
* Point source vs. non-point source
* Biotic Indexes
* Eutrophication
* Depletion of the ozone layer
* Acid Precipitation
 | 2 weeks |
| Unit 5: Global Warming | * Causes and Solutions
* The Debate
 | 1 week |

**CONTACT INFO:** If you wish to contact me any time regarding your student’s progress, please call or e-mail at the address below. I will always be available before and after school to both students and parents. I look forward to working with you.

JW Shaut jshaut@cppmail.com

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