

**HULL HIGH SCHOOL  
STUDENT COURSE EXPECTATIONS  
2018-2019**

**COURSE TITLE: ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE  
CREDITS: 9**

**Textbook:** Friedland, Andrew, and Reylea, Rick, Environmental Science for AP (2nd ed.), Bedford, Freeman, and Worth Publishing, 2015. Cost: \$130.00

**Course Overview:** 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 and/or preventing them. The course focus is on the “real science” behind environmental problems and issues. Laboratory and field study are an important element of the course. On Monday, May 6, 2019, students in this course must take the Advanced Placement Examination in Environmental Science. Students who do not take this examination will receive honors credit in lieu of advanced placement credit. The student fee for taking this examination, which is administered and corrected by the College Board, is \$94.00. Fee reductions are available for students who are financially eligible. Please see your guidance counselor to inquire about a fee reduction.

**Course Objectives:**

- Students will recognize the complex and wonderful relationships that connect organisms with their environment.
- Students will describe processes and cycles, which move matter, energy and nutrients through an ecosystem.
- Students will make connections between the climate of an ecosystem and the organisms that live there.
- Students will accurately describe the major land, marine, and aquatic biomes.
- Students will evaluate available and proposed methods of energy sources and production in terms of their ability to provide for our needs while protecting the environment.
- Students will discuss the factors that effect population growth.
- Students will describe the causes and effects of various types of pollution.
- Students will summarize and evaluate environmental law statutes.
- Students will identify factors of environmental concern, and discuss ways to mitigate those factors in the future.

**Course Content:**

- Ecosystems: Food webs, trophic levels, nutrient cycles, species interaction.
- Energy Transfer: Laws of thermodynamics, energy pyramids, energy loss.
- Human Populations: Population growth trends, demographics, future concerns.
- Energy Resources: Organic fuels, nuclear power, alternative and “clean” energy.
- Water Resources: Water uses, pollution, treatment, sewage treatment, and conservation.
- Mineral and Soil Resources: Mineral and soil classification, mining, erosion and weathering, resource use, conservation measures.
- Pollution, Land Use, and other Problems: Global warming, acid precipitation, ozone layer depletion, air quality issues, zoning and planning, and concerns for the future.

**Required Reading:**

- Textbook.
- Current events articles and case studies.
- Additional supplemental readings.

**Required Writing:** The Science department will fulfill a critical component of the Hull High School writing initiative through the writing of formal laboratory reports and laboratory abstracts. Each science course will require a total of two formal written laboratory reports per year. Laboratory abstracts will be written for experiments, which do not require a written laboratory report. Hull High School Written Laboratory Reports will be typed, written in the third person, and contain the following components: Title, Abstract, Introduction, Materials, Methods, Results (which includes written results, data tables, and graphs), Discussion, and Literature Cited / References. Laboratory abstracts will be typed, written in the third person, and consist of a summary of the purpose, summary of the methods, summary of the results, and summary of the conclusion.

**Course Evaluation Criteria:**

The grading scale will follow the policy outlined in the student handbook. Students will be graded on the number of points earned vs. total points available.

Tests/Quizzes – Tests will be announced, quizzes will not. Tests will be given at the end of units/chapters, and quizzes will be given to check conceptual understanding or as a follow-up assignment to homework. Tests will be announced, while quizzes will not. Tests and quizzes will count for up to 100 points each. Although there is no set proportion of percentages for each grading category, the majority of the student grade will be based on quiz and test performance.

Lab Reports, group and individual projects – Lab reports may be formal lab reports as described above, abbreviated lab reports, or abstract only. Rubrics will be used for lab reports, group projects, and presentations, and will be handed out with the assignment. Lab reports, group and individual projects will count for up to 100 points each.

Homework assignments – Written homework will be given mainly as review questions, study guides, and vocabulary lists. Homework will count for 10 points each.

## Course Policies

**Lab Safety** – Students will follow all safety rules as defined in the safety contract provided the first week of classes. Unsafe practice by a student will result in that student being removed from the lab, pending a parent meeting with the instructor and school administration. Zero points will be earned for missed labs due to unsafe practices. Ask questions if you don't know so you can learn proper procedures. Immediately report any accident, breakage, or spill to the instructor.

**Attendance** – Although the school has a separate attendance policy, it is very important that all students make every effort to be in class every day. Due to the rapid pace of the course, and the amount of material being covered, it will be very easy for students to fall behind after even one absence. When absences are unavoidable, students must contact the instructor immediately when an absence is anticipated, or upon returning to school, to get makeup work and set up a schedule for making up missing work. Any missed lab activities will be made up after school. Failing to make up work within the allowed time limits will result in the student receiving a zero for any missing work.

**Academic Honesty** – Students are responsible for completing their own work, including tests, class work, labs, and homework. Any student who is caught cheating will receive a zero for that assignment, and will be referred to administration. Please carefully read the section in the student handbook on academic integrity. Students will be held to these standards.

**Class Preparation** - Bring the text, your binder, pen/pencil, and agenda book every day, unless otherwise told by the instructor. Students who come to class unprepared will lose points from their final average.

**Homework** - Homework will be assigned on a regular basis. It is expected that students will devote one hour per night for homework in AP Environmental Science. Much of the homework will be assigned reading from the textbook. It is important to note that students will be expected to use homework time as a time to review previously covered material, to review notes and materials from class, and to acquire new knowledge independently. Homework is due at the beginning of class on the specified due date. No late homework will be accepted.

**Classroom rules** - Be on time. Be respectful and courteous and use appropriate language at all times. Be responsible for your learning and be a positive contributor to the class.

**Extra help** - After school. Please arrange for a time with the instructor before or after school. Students who are having trouble understanding concepts, or who are having trouble keeping up, should immediately schedule time after school to get extra help.

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**Student/Parent Acknowledgment**

Your signature indicates that you understand the terms of these expectation sheets and know what is expected of you for the successful completion of this course. Please keep these sheets in your notebook and refer to them whenever you have any questions concerning the course.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Your signature indicates that you have had the opportunity to read these expectation sheets and discuss the expectations with your son or daughter. I thank you for your cooperation, and please do not hesitate to contact me at the high school by email at [jdonohue@town.hull.ma.us](mailto:jdonohue@town.hull.ma.us), or call me at the high school 925-3000 should you have any questions or concerns about your child's progress or if you would like to make an appointment with me.

Parent/guardian signature: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Parent email: \_\_\_\_\_

Best parent phone to call: \_\_\_\_\_

Thank you.