



Buford High School

HIGH SCHOOL COURSE SYLLABUS



COURSE TITLE.....AP ENVIRONMENTAL SCIENCE

TERM2018-2019

TEACHERVALERIE HEAD

ROOM #.....443

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Help Sessions	Tuesday and Thursday mornings from 7:10 am to 7:40 am Monday and Wednesday afternoons 2:45 to 3:30 pm

COURSE DESCRIPTION

From AP Central: “The goal of this 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.”

This is a year-long course, culminating with the AP exam at the end of spring semester – May 6th, 2019.

COURSE CURRICULUM CONTENT

THEMES AND SKILLS	UNITS/TOPICS
1. Science is a process. 2. Energy conversions underlie all ecological processes. 3. The Earth is one interconnected system. 4. Humans alter natural systems 5. Environmental problems have a cultural & social context. 6. Human survival depends on developing practices that will achieve sustainable systems. *Skills- data interpretation, graph analysis, dimensional analysis, development of scientific studies	From the College Board- % refers to % representation on the AP Exam I. Earth Systems and Resources (10-15%) II. The Living World (10-15%) III. Population (10-15%) IV. Land and Water Use (10-15%) V. Energy Resources and Consumption (10-15%) VI. Pollution (25-30%) VII. Global Change (10-15%)

INSTRUCTIONAL MATERIALS AND SUPPLIES

Published Materials	Instructional Supplies
<i>Environmental Science for AP*</i> by Andrew Friedland, Rick Relyea and David Courard, 2012, W.H. Freeman and Company	<ul style="list-style-type: none"> • Hardbound 3-ring binder and dividers • Loose leaf notebook paper • Pen/ Pencils (blue or black ink)

EVALUATION AND GRADING

Assignments	Grade Weights	Grading Scale
Labs/Activities Chapter Quizzes Benchmark Assessments Performance Essays Tests/Mock Exams Final Exam	Benchmarks (30%)* Unit Tests (40%) Labs, Quizzes (20%) Writing Assignments (10%) *This percentage includes the final exam. NOTE: Assignments may be turned in one day after the announced due date but are worth only 70% of the grade earned.	A: 90 and above B: 80 - 89 C: 70 - 79 F: 69 or below (A student must have a grade of 70 or higher in order to receive the AP bonus of 10 points at the end of the semester.)

OTHER INFORMATION

Expectations for Academic Success	Important Note for AP Science Courses
1) Read daily 2) Ask questions 3) Participate constructively as a team member 4) Turn in all assigned work the day it is due 5) Complete all test corrections 6) Challenge yourself to continuously improve	Students enrolled in AP Environmental Science will be REQUIRED to take the Fall Semester Final Exam and the AP Environmental Science Exam in May 2019; a passing score (3, 4, or 5) on the AP Exam represents the potential for college credit.

The syllabus may be updated as needed throughout the semester.

About This Course:

- The methods used in this class will include brief lectures, computer simulations, laboratory experiments, scientific modeling, debate, and research. Student work will include unit tests, free response questions, chapter quizzes, benchmark exams, performance essays, case studies, daily warm ups, and computer modeling.

Unit Tests and Quizzes:

- Tests are given at the conclusion of each major unit and are designed so that students must demonstrate their mastery of the material through multiple choice and free response questions. Unit tests, although shorter in length, will be modeled after the structure of the AP Environmental Science Exam.
- Quizzes are given throughout the unit. Since this is an AP course, we will have to move through material quickly. These 10 minute quizzes are designed to ensure that students are keeping up and to identify weaknesses in learning. Quizzes will consist of several multiple choice questions and a short writing prompt.

Mock Exam Information:

- Full Mock Exams will be given throughout the course in order to give students as much exposure to the structure of the AP Exam as possible.
The following formula is used to calculate your mock score.

$$\begin{aligned} \text{Multiple Choice: } & \underline{\hspace{2cm}} \text{ (correct out of 100)} \times 0.9 = \underline{\hspace{2cm}} \text{ (Composite MC pts)} \\ \text{FRQs (4 total): } & (\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}) \times 1.5 = \underline{\hspace{2cm}} \text{ (Composite FRQ pts)} \\ & \underline{\hspace{2cm}} \text{ (Composite MC)} + \underline{\hspace{2cm}} \text{ (Composite FRQ)} = \underline{\hspace{2cm}} \text{ (Total pts out of 150)} \end{aligned}$$

- The following cut scores will be used for every Mock Exam as this represents the cut scores used for the actual AP Exam. A score of a 3, 4, or 5 represents receiving credit on the AP Exam.

FYI: Every college and university has different rules with what score they will accept for credit.

Possible Points	AP Score
111-150	5
91-110	4
81-90	3
62-80	2
0-61	1

Final Exam/AP Exam: **All students will be required to take the AP Exam.**

- Both semesters will also conclude with a comprehensive final exam on the material covered that semester. The format of the final exam is very similar to that of the AP Exam. **In preparation for the AP Exam, ALL students will be required to take the exam at the end of the first semester.** Students taking the AP Exam may exempt the second semester final provided that students participate in mandatory afterschool review sessions and/or meet other exemption requirements.

Honor Code Policy:

All BHS students will strictly adhere to the BHS Honor Code which is posted on the BHS website.

For any violation of the BHS Honor Code, students will receive a 0 and be referred to the administration.

Make-Up Work:

- **All pre-assigned work will be due on the day of a student's return from an absence.**
- For **assignments which did not have a pre-assigned due date during the time of the student's absence**, students will be given five days to arrange for makeup work or follow other arrangements granted by the teacher.
- Assignments or tests that are not made up by the specified time **receive a grade of zero (0).**

ALL POLICIES OUTLINED IN THE BCSS STUDENT CODE OF CONDUCT AND THE BHS STUDENT HANDBOOK WILL BE FOLLOWED IN THIS CLASSROOM.

TEACHER CONSEQUENCES FOR MINOR CLASSROOM DISRUPTIONS	
1 st	Penalty assigned at teacher's discretion – Parent Contact
2 nd	30 minute faculty detention and parent contact
3 rd	1 hour faculty detention and parent contact
4 th	Administrative Referral *Major Disruptions will result in an automatic administrative referral.

Course Outline:

Units and Topics	Semester
Unit 1: Introduction to APES (Ch 1, 2, 20, 19) Fundamental Principles, Experimental Design, Chemistry, Systems and Feedback Climate Change, Sustainability	Summer Assignment and Fall
Unit 2: The Living World (Ch 3, 4, 5) Ecology, Life's Support Systems, Ecosystem Structure and Diversity, Biogeochemical Cycles, Evolution, Terrestrial Biomes, Aquatic Life Zones, Human Impact on Biomes	Fall
Unit 3: Populations (Ch 6, 7, 18) Community Interactions, Population Dynamics, Human Population, Conservation	Fall
Unit 4: Earth Systems and Resources (Ch 8, 9) Mining, Mineral Resources, Plate Tectonics, Weather/Climate, Atmosphere and Ocean Currents, Water Resources and Conservation	Fall
Unit 5: Land and Water Use (Ch 10, 11) Agriculture, Soil Conservation, Pest Management, Terrestrial and Aquatic Conservation	Fall
FALL FINAL EXAM (BM #3)- REQUIRED FOR ALL STUDENTS	
Unit 6: Energy Resources and Consumption (Ch 12, 13) Fossil Fuels, Energy Conservation, Alternative Energy Sources	Spring
Unit 7: Pollution (Ch 14, 15, 16, 17) Water Pollution, Wastewater Treatment, Water Quality Testing, Groundwater Pollution, Ocean Pollution, Air Pollution, Ozone Depletion, Solid and Hazardous Waste, Biological, Chemical and Health Hazards, LD 50	Spring
REVIEW FOR AP EXAM	Spring
AP EXAM	Monday May 6, 2019