



Advanced Placement Environmental Science - Course Syllabus (Students)

2016-17

Instructor: **Mike Rooney**

Room 204

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Textbook (Required for home use): Botkin, D. and Keller, E., *Environmental Science: Earth As A Living Planet*, 8th ed., 2011, Newspapers, World Wide Web, Journals, and selected essays.

Parent/Student Resources:

Synergy web address for parents to login:

www.vue.district6.org

Monthly calendar of assignments & due dates

To track grade & attendance

Students should have this in the front of their binder.

Course Overview:

AP Environmental Science (APES) is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of this interdisciplinary 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. The following themes provide a foundation for the structure of the course:

1. Science is a process.
2. Energy conversions underlie all ecological processes.
3. The Earth itself is one interconnected system.
4. Humans alter natural systems.
5. Environmental problems have a cultural and social context.
6. Human survival depends on developing practices that will achieve sustainable systems

Content Covered/Course Learning Targets

Students Will _____:

- Carry out investigations in the laboratory and the field.
- Contribute to classroom learning by working effectively in a group.
- Explore and analyze the interconnections between science, society and public policy.
- Engage in scientific inquiries and improve my expository writing skill.
- Prepare effectively for the AP exam (and other information dense examinations; eg. ACT and SAT)

Work Sample/Oregon Science Standards

A minimum of one writing work sample will be assigned this trimester. The writing will be scored using the Oregon State Writing Guide and the following standards will be assessed. In addition, each student will be given several opportunities to demonstrate mastery of each of the standards listed below:

H.3S.1 Scientific Inquiry: Based on observations and science principles, formulate a question or hypothesis that can be investigated through the collection and analysis of relevant information.

H.2E.4 Interaction and Change: Evaluate the impact of human activities on environmental quality and the sustainability of Earth systems. Describe how environmental factors influence resource management.

H.2L.2 Interaction and Change: Explain how ecosystems change in response to disturbances and interactions. Analyze the relationships among biotic and abiotic factors in ecosystems.

Schedule of topics/units covered:

Unit/Topic of Study	Approximate # of Days
Unit 1: Interdependence of Earth's Systems: P & C (Ch. 1, 2, 3)	13
Unit 2: Earth System and Resources (Ch. 6, 9, 23)	11
Unit 3: Living World (Ch. 5, 8)	11
Unit 4: Population (Ch. 4, 7, 22)	11
Unit 5: Land and Water Use (Ch. 11, 12, 13, 18)	13
Unit 6: Energy Resources and Consumption (Ch. 14, 15, 16, 17)	13
Unit 7: Pollution (Ch. 10, 21, 19)	13
Unit 8: Global Change (Ch. 20)	11
Unit 9: Environmental Law (Ch. 24 and other chapters/articles)	Throughout the trimester

Grading

The following weighted categories will be used to evaluate the overall grade for APES:

Category	Weight (Approximate %)
Multiple Choice Tests and Free Response Questions	60-65
Group Projects/ Presentations	8-12
Classwork and Homework	5
Laboratory Reports	14-18
Environmental Journal	5

Tests: At the end of each unit, a Multiple Choice (MC) test and a Free Response Question (FRQ) will be given. These questions will model the AP test format. It is vital to practice these questions in the prescribed time to prepare for the AP exam. In general, the multiple choice test will have 20-25 questions and students will be allowed 20 minutes to take that portion. The FRQ will also be administered in 20 minutes to model the AP testing environment. Retakes of multiple choice tests will be made available when possible 2 days after taking the first MC unit test.

Journals: Each student will maintain a composition notebook, or *APES Journal*, that is only for Environmental Science work. Periodically, *APES Journals* will be collected to check homework, warm-ups and responses. Students must bring journals to each class meeting.

A = 90% and above

B = 80%- 89%

C= 70%-79%

D= 60%-69%

F= 59% and below

LEARNING BEHAVIORS: In addition to academic grading, your student will be assessed on three behavioral categories:

- 1) Teamwork
- 2) Personal Management
- 3) Striving for Quality Precision and Accuracy

Students will be assessed on whether they “meet” or “do not meet” these criteria- no letter grade is associated with assessment of the learning behaviors.

AP Exam Preparation

This course will prepare students to take the AP exam. The APES exam is given in the spring and is comprised of a 90 minute Multiple Choice session and a 90 minute Free Response session. The multiple choice section consists of 100 questions and constitutes 60% of the grade. The free response section goes into greater depth of understanding and constitutes 40% of the grade.

Review for the test will be conducted in class and after school on designated days before the exam in May.

Test Date this year is Monday, May 1, 2017.

STUDENT’S RESPONSIBILITIES

Mastering the learning targets in Chemistry requires students to **actively think** about what they know and to relate that to new ideas to be learned. To be successful, students must:

1. Be **actively involved** in class, **ask questions, contribute** to discussions
2. **Complete or attempt all assignments and labs.** All assignments are designed to help you learn. They are not busy work.
3. **Ask for help and ask questions** of fellow students (when appropriate) and the teacher (when appropriate) when you are confused or don’t understand.
4. **Do your homework on time** so that you are prepared for the next learning target.
5. **Prepare in advance** for tests and quizzes and group learning activities like Socratic Seminars. Review notes, re-read material and study guides completed in class, find someone that you can verbally explain concepts to ahead of the test (if you can explain it well to someone, you know it).
6. **Do not distract** self and/or others students from the opportunity to learn.
7. **Follow the guidelines** set by the school and the district student behavior code. Come to class **on time and prepared** with materials
8. **In group-work, use the 95 / 5 rule...** (95% Science / 5% social, only after the work is done!)
9. Remember that **cell phones** and other electronic devices **should be OFF & out of sight** unless explicitly teacher approved for a given activity & then it must only be used in the manner approved. If such devices are out or disrupt class by ringing, a cell phone referral will be issued as per CAHPS discipline policy.
10. **Be safe** and follow all lab safety rules at all times
11. **Be respectful** to the teacher, fellow classmates, and any guests to our classroom (guest speakers, substitute teachers, student teachers, etc.)

Additional Required Materials

- graph-ruled composition book, or spiral notebook for your Chemistry Journal
- ½ binder; or space in a larger binder for handouts and lab reports
- Scientific calculator

Attendance (Follow school & District policies):

Attendance and participation are **vital to your success** in Chemistry. We will be doing a lot of lab activities which are difficult to make up. Labs and other learning activities are most valuable when done in class with the teacher and other students to enhance learning. Without good attendance and active learning, acquiring the knowledge and skills of high school biology is nearly impossible. If you do miss a lab, **you must make arrangements with your teacher to come in to**

make-up the lab within a timely manner. Many chemistry labs have consumable supplies that are only available for a short period of time.

PARENTS

If you need to contact your student for an emergency or other reason during the school day, outside of our lunch period; PLEASE call the school phone number (541) 494-5260 and your student will be contacted. Please **do not** call or text your student's cell number during class because it causes disruption to your and other students learning.

The simplest way to reach me is by email (*mike.rooney@district 6.org*); times that I am most available for parents are before school between 8:00 -8:50 AM, and during my first period prep. I can usually respond to your email within 3 working days. For student help outside of class, I am available for help most days before school (8:00-8:45 AM) After school my office hours are Monday and Wednesday from 3:45 to 4:30 PM. Specific conference hours will be posted outside Room 204.

AP Environmental Science SYLLABUS ACKNOWLEDGEMENT FORM

Note: Please read this syllabus carefully and sign it, have your parents/guardians read it and sign it, and return this portion to me by _____. Be sure to place the rest of this document into your binder for APES.

I have read and understand the course expectations and policies:

Print Student Name (Please print neatly)

Student Signature

You, your daughter/son, and I are partners in your students' education. You can help him/her succeed by checking with them as often as possible about their progress and looking with them at their assignment completion and/or needs. Contact me any time with questions or concerns.

Parent/Guardian Signature

Parent/Guardian Email – please print neatly

Best Phone Number(s) to reach you

First preference: _____

Second option (if available): _____

It is often easiest to call during the day, is it okay to call you at work if there is something I would like or need to talk to you about your student?

Yes No

If yes, work number: _____