

WELCH CENTER FOR GRADUATE AND PROFESSIONAL STUDIES
GOUCHER COLLEGE
ADVANCED PLACEMENT SUMMER INSTITUTE - ONLINE
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SYLLABUS AND REQUIREMENTS FOR GRADUATE CREDIT

Course: AP 527E.200 Preparing Students for Advanced Placement®
Environmental Science: Experienced Teachers

Dates/Times: June 28 – July 1, 2021; 7:30 a.m. – 4:00 p.m. Monday – Thursday

Instructor: Anne Soos

Attendance Policy: lateness and absence are not permitted

Instructor contact information:

Anne Soos, 125 Hun Road, Princeton, NJ 08540, annecsoos@gmail.com

This online class is designed to maximize the learner experience, providing relevant AP content and pedagogy through meaningful engagement – all focused on best practices for preparing your AP students for success. It is designed primarily for experienced AP Environmental Science teachers. This intensive four-day course will provide an overview of the entire AP Environmental Science (APES) curriculum. In this Institute we will focus on 1) analysis of recent FRQ's: how they were scored, which Units and Topics were included, and tips on improving your student's FRQ scores; 2) important concepts within the revised CED framework; 3) how to conduct meaningful lab experiences in both hands-on and virtual settings; 4) a review of the most basic, required labs; 5) tips on the Multiple-Choice section of the AP exam; 6) successful course planning that may or may not follow the sequence of topics in the CED. Some important features of AP Classroom will be explored, as well as additional teaching aids available on AP Central. Each day, we will focus on 1 or 2 of the 9 units, including possible labs associated with those units, and participants will devise and discuss (in break-out rooms) modifications which could be implemented to extend the labs and make them more inquiry-based. Each participant will be asked to make a 5-minute presentation to the group of an activity which they have used successfully in their APES class. Participants will be expected to spend some time on homework which besides the presentation, could include writing and sharing possible FRQ's or inquiry-based labs. Participants should have their school calendar for the coming year and a scientific calculator of some type available. Participants will be expected to have read and answered the 2021 Free Response Questions before the Institute begins. The class will include about equal amounts of time spent synchronously and asynchronously. The last half-hour of each day will be reserved for "office hours" with the instructor.

During this course, students will demonstrate the following AP Teacher Standards:

1. Content Knowledge
2. Teacher Certification (i.e., AP Syllabus)
3. Pedagogy and Student Learning
4. Analysis and Reflection
5. Ongoing Professional Development

In addition, students will demonstrate the following outcomes as suggested by the Maryland State Department of Education:

Graduate Programs in Education Outcomes

1. GPE001: Knowledge - Theory: Apply knowledge of psychological and educational theory, research, and/or philosophy related to AP Environmental Science.
2. GPE002: Knowledge - Assessments: Demonstrate understanding and use of the types of assessments appropriate to AP Environmental Science.
3. GPE004: Knowledge - Diversity: Demonstrate knowledge of concepts related to diversity, and the interaction between concepts related to diversity and the admission of students to AP courses. Equity and Access will be discussed.
4. GPE005: Skills - Theory: Demonstrate the ability to incorporate theory and research into practice related AP Environmental Science.
5. GPE006: Skills - Data: Demonstrate the ability to gather appropriate data and use data in problem analysis and decision-making related to AP Environmental Science.
6. GPE007: Skills - Problem Solving: Use problem solving/critical thinking strategies appropriate to AP Environmental Science.
7. GPE008: Skills - Reflection: Use reflective practice within the area of AP Environmental Science.
8. GPE009: Skills - Communication: Demonstrate effective communication and presentation skills related to AP Environmental Science.
9. GPE010: Skills - Technology: Use a variety of technologies appropriate for working in the area of AP Environmental Science.
10. GPE011: Dispositions - Service: Demonstrate service to the community, as related to specific projects related to AP Environmental Science.
11. GPE012: Dispositions - Diversity: Demonstrate positive dispositions toward diversity and equity. Equity and Access will be discussed.
12. GPE013: Dispositions - Professionalism: Demonstrate professionalism in one's demeanor, behavior, conduct, decision-making, and interactions with colleagues.

Required Pre-work:

- Join the APES AP Teacher Community and post a comment.
- Write out answers to all released Free Response Questions from the 2021 AP ES examination and bring to first day of class. Information on accessing these questions will be sent to you in May. Write out your answers in longhand and try to be as complete as possible.
- Email the instructor Anne Soos (annecsoos@gmail.com) any time after May 1 so that you can receive and fill out the course questionnaire before June 8th.
- Students should complete the short activity they will receive from the instructor once she receives their questionnaire. Students should bring this activity to class.
- Try to locate in your school or purchase a copy of the lab manual by William Molnar, ISBN 9781413897166 Lab Investigations AP Environmental Science 2E. This lab manual is a great resource for all APES teachers. Either the blue or the green cover edition is fine.
- A print-out or downloaded PDF of the instructor's handout which will be shared before the Institute begins.
- A successful sign-in to the Canvas 527E course pages.

Materials to have available: a copy of your textbook and lab book (if any) for 2021-2022 if you have it, scientific calculator, ruler, three-ring binder, pencils and pens, note paper or a spiral notebook, sticky notes, laptop or tablet with Excel (or able to access and use Google Sheets).

Course Objectives:

1. This intensive four-day program is designed for experienced teachers who are interested in updating their class. We will survey the entire rearticulated AP Environmental Science syllabus using the Course and Exam Description (CED) released in 2019. The aim of the course is to assist teachers of AP Environmental Science in developing and implementing their own AP Environmental Science Curriculum in accordance with the new CED, and to provide experienced teachers with additional information on best practice and updated materials.
2. The course will introduce participants to both content and hands-on laboratory activities important to teaching a successful AP ES course. Participants will use spreadsheets for analysis of laboratory data.
3. Participants will be encouraged to share successful teaching strategies and techniques with each other during the course.
4. Participants will practice both multiple choice and free response questions to fully understand how the AP Environmental Science exam is developed and scored.
5. Participants will work virtually on labs which extend beyond the most “basic” labs required for a good AP ES class.
6. Information on resources available for AP teachers based on the rearticulated CED will be demonstrated and discussed with participants.
7. Participants will leave this course with confidence to modify their own classes and a syllabus or course outline.
8. Participants will have practiced writing FRQ’s and developed inquiry-based labs to guide them towards success as teachers of AP Environmental Science

Tentative Syllabus (subject to change due to participant interest)

- What an AP course is and is not
- Overview of changes in APES for related to the new CED
- A brief discussion of textbooks, review books, and lab manuals
- How the AP ES is exam is scored
- What’s new for multiple choice questions and FRQs
- How to modify your AP ES syllabus to conform to the CED while allowing you to reach your class in a topic order with which you are comfortable.
- Using spreadsheets in your class
- Discussion of a variety of “must do” hands-on labs you can use in your AP class.
- Experience performing labs that go beyond the basics, that involve collection and analysis of numerical data, and that can help your students master FRQ’s.

Bibliography: None

Requirements for Graduate Credit

Assignment must be received by **Thursday, July 8, 2021 at the latest, one week after the end of the Institute.** My final grades are due to Goucher by July 15, 2021. The final submission should be clearly labeled with the participant's name, must be **received** by the instructor in hard copy or (better) by an email document at her home address/email address within one week of the end of the Institute (July 8, 2021), or at the end of the class on July 1, 2021. (Anne Soos, 125 Hun Road, Princeton, NJ 08540 or annecsoos@gmail.com). This submission will NOT be returned to the participant.

Students may choose either Option A or B. The instructor must know which option you have chosen at the beginning of the class, so there is sufficient time for needed presentations.

Option A: You will design/redesign your syllabus for your AP ES course using your school's academic calendar for 2021-2022, and the rearticulated CED. You may wish to use Molnar's laboratory manual in this syllabus.

Develop or revise your course syllabus unit-by-unit *as you plan to teach it* by using your textbook and/or the CED and your school's academic calendar. Be sure to include vacation days and other days your school is not in session or your class does not meet. Build in at least 3 weather-related lost days. Use your previous experience in teaching this course to estimate which units will be more difficult and take more time, which will be easier for them and require less class time. **You are aiming for about 140 45-minute periods of instruction, and about 25% of this class time should involve hands-on laboratory activities.**

For each unit (either from the CED or your own sequence), estimate the number of days you will need, and tentatively place chapter and/or unit tests. Choose at least one lab for each unit, source is up to you, and give its title and a one sentence description, as well as a brief explanation why you chose this lab and how it fits into your syllabus.

Note that the CED has spaces in it for you to keep a diary of time spent/resources used for each unit and topic. This diary could be invaluable if you used it during the 2020-2021 school year.

Option B: You will design and share **either** an inquiry-based hands-on lab activity (original or modified) which is appropriate for use in an AP environmental science class, **or** an original FRQ correlated to the new AP ES CED which includes the question and grading rubric. These final submissions must include changes incorporated as a result of the class discussions following a 5-minute presentation.

Grade and Transcript Information

Goucher College does not issue grade reports. You can obtain your grade approximately 3 weeks after concluding the course by going to the myGoucher website (myGoucher) and following the prompts to receive your grade. If you have misplaced your password, please contact the help desk (helpdesk@goucher.edu) and they will help you through this procedure.

If you need a paper copy of grades for tuition reimbursement, you will need to request a transcript in writing. You can fax your request to 410-337-6504 or mail to:

Goucher College
Registrar's Office
1021 Dulaney Valley Road
Baltimore, MD 21204

There is no charge for this request. Please allow 3-5 working days to process. To access the transcript request form, please go to [Transcript-Request.pdf \(goucher.edu\)](#).

Questions? Please call the Welch Center Office at 410-337-6200.