

WELCH CENTER FOR GRADUATE AND PROFESSIONAL STUDIES  
GOUCHER COLLEGE  
ADVANCED PLACEMENT SUMMER INSTITUTE – IN PERSON  
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**SYLLABUS AND REQUIREMENTS FOR GRADUATE CREDIT**

**Course:** AP 527.400 Preparing Students for Advanced Placement®  
Environmental Science

**Dates/Times:** June 27– 30, 2022; 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](mailto:annecsoos@gmail.com)

This online or in person course (depending on the situation in Maryland in June) 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 new AP Environmental Science teachers but experienced AP Environmental Science teachers who have not recently participated in a summer APSI may wish to attend. (With sufficient advance notice from enrollees, the instructor can have some alternative activities for experienced instructors.) This intensive four-day course will provide an overview of the entire AP Environmental Science (APES) curriculum. Each day, important concepts will be discussed and related specifically to APES free-response questions, and participants will perform (either virtually or in person) laboratories associated with these concepts. The major goal is to expose participants to both content and hands-on activities important to teaching a successful APES course. In addition, new AP resources will be discussed. Participants will be expected to spend some time on homework for this institute, which could include working up lab data, reading lab activities, and possibly preparing a course syllabus or outline that correlates to the APES course description. Participants are encouraged to share electronic materials/favorite web sites as some class time will be reserved for this purpose. 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 2022 Free Response Questions before the Institute begins. If virtual, 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.

**Participants should bring a pair of safety goggles if the class is in person.**

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
- Speak to your AP Coordinator and gain access to the Audit site and AP Classroom
- Write out answers to all 6 released Free Response Questions from the 2022 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](mailto:annecsoos@gmail.com)) any time after May 1 so that you can receive and fill out the course questionnaire before June 12th.
- 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 teachers new to the course. Either the blue or the green cover edition is fine.

**Materials to bring:** a copy of your textbook and lab book (if any) for 2022-2023 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). If in person, **Safety Goggles.** You may wish to bring a camera.

### **Course Objectives:**

- 1) This intensive four-day program is designed for both new teachers of APES, and 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 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 discuss both multiple choice and free response questions to fully understand how the AP Environmental Science exam is developed and scored.
- 5) Information on resources available for AP teachers based on the rearticulated CED will be demonstrated and discussed
- 5) Participants will leave this course with confidence to establish or modify their own classes and a syllabus or course outline to guide them towards success as teachers of AP Environmental Science

### **Tentative Syllabus**

- What an AP course is and is not
- Overview of changes in APES related to the revised CED
- A discussion of textbooks, review books, and lab manuals
- How the AP ES exam is scored
- What's new for FRQs
- What's new for multiple choice questions
- How to put together a tentative syllabus for your new AP course
- Using spreadsheets in your class
- Exposure to a variety of "must do" hands-on labs you will be able to use in your AP class, using both Molnar's AP\* Environmental Science Laboratory Investigations and the new AP ES manual for AP Environmental Science as two of our sources for labs during the week, as well as several instructor-developed labs.
- In-depth discussion of the new course and exam description of APES

If in person, participants will most likely go on a field trip: a short walk to a pond located on campus to do chemical water testing.

**Bibliography: None**

## Requirements for Graduate Credit

**Assignment must be received by Thursday, July 7, 2022, at the latest, one week after the end of the Institute. My final grades are due to Goucher by July 14, 2022. 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 7, 2022), or at the end of the class on June 30, 2022. (Anne Soos, 125 Hun Road, Princeton, NJ 08540 or [annecsoos@gmail.com](mailto:annecsoos@gmail.com)). This submission will NOT be returned to the participant.**

**Option A: (for any participant)** You will design/redesign how you will teach one unit of the 9 units in the CED. (You may wish to refer to the new AP ES Lab manual and/or the handouts you've received in this institute, and/or Molnar's laboratory manual in this syllabus.) Make sure that the time allotment for the unit is in synch with your own number of classes, and that you meet the 25% requirement of hands-on lab work as well as time for review and testing. Use your knowledge of your students' backgrounds 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 overall, and about 25% of this class time should involve hands-on laboratory activities.**

For the unit you've chosen, estimate the number of periods you will need, and tentatively place quizzes, chapter and/or unit tests. Choose at least one lab for the 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. The hope is that you will have one unit entirely planned out and ready to go for the coming school year.

**Option B: (for experienced participants only, unless doing option A, above)** Based on what you have learned in this Institute, prepare a tentative planning schedule for the year, correlated with your own school and class schedule, that shows approximately where and when each of the 9 topics in the CED will be covered, and which includes time for review and testing for each unit and also review time in April in preparation for the May examination. Choose one hands-on lab for each unit and briefly describe why this lab fits well into your course plan. The hope is that you will have a "road map" entirely planned out and ready to go for the coming school year.

## 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](http://myGoucher)) and following the prompts to receive your grade. If you have misplaced your password, please contact the help desk ([helpdesk@goucher.edu](mailto: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](http://Transcript-Request.pdf) ([goucher.edu](http://goucher.edu)).

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