UConn/Advanced Placement Environmental Science

"You are capable of more than you know. Choose a goal that seems right for you and strive to be the best, however hard the path. Aim high. Behave honorably. Prepare to be alone at times, and to endure failure. Persist! The world needs all you can give." E. O. Wilson (1929-2021)

Dear Future UConn/APES student,

I'm so glad you have chosen to take UConn/AP Environmental Science for next year! We will be following the University of Connecticut's curriculum for **NRE 1000: Environmental Science**. This is a dual-enrollment course where you will receive credit at Amity as well as at UConn, should you choose to register. Successful completion of this course will allow you to earn 3 credits that are transferable to many colleges and universities. In addition, you will be prepared to take the Advanced Placement Environmental Science (APES) exam. Remember, this is an honors-level, advanced placement course, so you can expect a fair amount of work. Of course, the more engaged you are with the material, the "easier" it will be.

This course includes several outdoor lab activities to provide you with an authentic, undergraduate-level field-based experience. You will get outside and study portions of our campus that you may have never noticed before! Amity is so fortunate to be in the vicinity of wetlands and forests, rendering it a fantastic location for field study. In order to prepare you for the UConn and AP exams, I must finish the material in our textbook by the end of April. That means we will move quickly and you must keep up with the work. To start you off, here is your summer assignment.

Important reminder: Your submitted written responses must be your own...no AI. (We will discuss legitimate uses of AI throughout the year), Do not collaborate with other students for these assignments. You will have future opportunities to do so, but this needs to be individually generated so that I can measure your level of introductory content knowledge, critical thinking and problem solving. All work is to be submitted via **Schoology**.

- I. Read Garrett Hardin's controversial essay "<u>Tragedy of the Commons</u>" <u>and</u> watch The Lorax (1972 version- old school ②...your folks may want to watch with you): https://youtu.be/8V06ZOQuo0k Compose thoughtful and thorough responses to the four prompts below and submit your assignment by **Friday, August 29, 2025**.
- 1. The Lorax is a good illustration of the Tragedy of the Commons as written by Garrett Hardin. Explain the idea behind that essay, and relate it to the television special. What are the commons in the world of the Lorax?
- 2. What is the Law of Unintended Consequences? Give one example of an unintended consequence that arose from clear-cutting the Truffula trees. Give another example of an unintended consequence that arose from something that you have experienced in your own life.
- 3. This story is a great example of unsustainability. What does sustainability mean to you? What could the Once-ler have done differently with the Truffula forest that would have been more sustainable?
- 4. Describe an example of a resource that your local community is currently using at an unsustainable rate. What is, or could be, an unintended consequence of this?
 - II. Read Chapter one and six from the APES textbook. (You may simply skim the Economics and the Environment section of Chapter 6 on pages 141-147 and 152-154, but do pay attention to/take notes on the value of ecosystem services).
 - A. Create a https://learningcenter.unc.edu/tips-and-tools/effective-note-taking-in-class/. Focus on the most salient pieces of information from each chapter instead of writing down every single word. Be sure to include major vocab terms, especially ones you are unfamiliar with. (I included a wocabulary list for your reference).

- B. Complete the table* and #1-4 from Calculating Ecological Footprints (Ch 1, p. 21) and #1 and #5 from Seeking Solutions (Ch 6, p. 158).
- C. Submit your notes and answers to questions by Friday, August 29. You will have a reading quiz on the material during the second week of class.

*There is a typo in the Bangladesh example...the value for ecological footprint is incorrect in the right hand column (0.79 but should be 0.84)...just FYI.

- III. The AP exam has math-based questions. Look at the handout "<u>APES Math and Equation Review</u>" and submit the "<u>Summer Review of Basic Mathematical Skills</u>" via Google Classroom by **Friday, August 29. Show your <u>handwritten</u> work to receive full credit!**
- IV. Flat Lorax- (UConn/APES version of Flat Stanley)- This is an ongoing project that you will start this summer! Cut out and color in a Lorax and include your first name and last initial on the front. Carry your Flat Lorax with you everywhere. You could keep it in your wallet or in your phone case. You never know when an opportunity to take a picture will come up. Read the project instructions and submit at least two Flat Lorax slides by Friday, August 29.

V. Choose #1 or #2

- 1. Go outside and take a hike...even a short nature walk will suffice! AllTrails is my go-to app for finding places to explore wherever I am. Be sure to take a friend and bring your cellphone, bug spray, sunscreen, plenty of water and snacks...and of course, let your parents/guardians know (or even bring them along). Be sure to check for ticks after being outside and stay on the trail! When you venture out, take a picture at both the starting and ending points of the trail next to some type of marker, along with any interesting spots or findings along the way (animal tracks, cool rock formations, invasive plants, etc.). iNaturalist is another great app and this will help you identify plants and animals. Submit your photos and a brief summary of your hike by Friday, August 29. This is a great Flat Lorax opportunity!
- 2. Join a Citizen Science initiative! Visit https://scistarter.org/ and find a project that you are interested in. There are TONS to choose from and many can be conducted remotely and fairly quickly! I like iNaturalist, Globe at Night, Stream selfie...other suggestions can be found here:

 https://www.experientiallearningdepot.com/experiential-learning-blog/20-citizen-science-projects-for-students-of-all-ages Submit a brief summary of your chosen initiative and describe the data you collected by **Friday, August 29.**

Everyone:

• Be able to recognize poison ivy. This will be included in your quiz when we return to school. Don't touch the stuff:

Have a great summer! See you in August. Sincerely,

Mrs. Nork

