## PHAE Teaching Notes

### Emily Nodine

enodine@rollins.edu

**Course Information**

ENV323 Conservation of Biodiversity

Department: Environmental Studies

Level: Upper Undergraduate

Course type: Lecture, discussion

Students: ENV Majors

Number of Students: 22

**Module Information**

Original Module Name: Plants in the Human-Altered Environment

Link to Original: <https://qubeshub.org/publications/2047/1>

Adapted Module Name: An Adaptation of "Plants in the Human-Altered Environment (PHAE)" for 100% Remote Learning at East Stroudsburg University

Link to Adapted Module: <https://qubeshub.org/publications/2190/1>

Modified Module Name: Adaptation of Plants in the Human-Altered Environment (PHAE) for a non-lab course on biodiversity conservation

Files associated:

* PHAE assignment guidelines for Spring 2021
* Background worksheet
* Module 1: Identify and characterize your study site
* Module 2: Characterize your study site’s climate
* Module 3: Classify the land cover of your study site
* Module 4: Locate your study plot within the study area
* Module 5: Collect data about your plot
* Module 6: Identify and measure woody plants in the plot
* Module 7: Data exploration
* Module 8: Data comparisons

Modification Learning Goals:

* Recognize a continuum of natural and human-altered landscapes
* Identify an appropriate study site and plot within a range of landscapes
* Classify landscape features, identify woody and non-woody plants, and measure plant abundance and cover
* Improve data management skills by collecting, sharing, and analyzing data using defined variables in spreadsheets
* Analyze spatially relevant data within and across project sampling locations to address local, regional, and continental scale research questions related to local landscape features and plant abundance, diversity, and size
* Become familiar with continental-scale ecological research through EREN and NEON and the importance of long-term ecological monitoring across time and space

**Teaching Notes**

Some students complained that this seemed like it should be in lab class, and without dedicated lab time it was difficult to find time to meet with their partner to complete the tasks, but most enjoyed it and were highly engaged. A few were interested to learn that they don’t have an affinity for field work but enjoyed engaging with research and conservation from a more technical side.

One change I will implement next time is to make data entry grade-bearing. The final components of the project involve using data from the whole class and not everyone got theirs in on time.

Some students had some challenges using Google Earth properly and it was difficult to help them troubleshoot. I didn’t know how to help them fix things I had taken points off for doing incorrectly when they showed me that they had followed the instructions. I learned long after the fact that none of them had actually downloaded Google Earth, but were just using the online version, which I suspect was the problem.