**Project Title:** Water Use Audit of Campus

**Project Description:** Determine which spots on campus are the biggest users of water and whether there are meaningful ways to reduce the consumption. Present practical solutions for improving efficiency, reducing water consumption, and promoting water conservation. Select a building or series of buildings to narrow your focus and implement effective solutions.

**Background:** Universities are major users of water resources, often by necessity and due to their sheer size. Even so, there are many areas where improvements can be made in systems to ensure steps toward water conservation are taken.

For your project, you might start by selecting a certain part of campus, set of buildings, or building to analyze. In this project, you will find features in buildings that are doing a good job of conserving water and some features that might benefit from an update. For example, if you are interested in reducing water use impacts in the dorms, you may begin by collecting data on water use for the toilets, showerheads, sinks, and washing machines. From there, determine whether these are considered efficient or find if there is a superior substitute at a reasonable cost if renovations are done. Calculate the approximate differences in water savings if the substitutions are made and try to communicate the long-term financial and environmental savings for the University. The results may vary from building to building, so your recommendations may not be one-size fits all – this is OK, being thorough is best.

**Helpful Readings:**

* 45 Ways to Conserve Water in the Home and Yard, <https://learn.eartheasy.com/guides/45-ways-to-conserve-water-in-the-home-and-yard/>
* Department of Energy Guide to Home Water Efficiency <https://www.energy.gov/sites/prod/files/guide_to_home_water_efficiency.pdf>

**Desired Outcomes:**

* Data on the current water use for your set of buildings, lawns, etc. based on appliances being used currently. Projected data if your recommended solution is implemented, in terms of water use reduction and money savings, if applicable. Written report on your recommendations for reducing water impacts. Presentation crafted to highlight key findings and goals for facilities manager use.

**Potential Collaborators/Stakeholders:**

* Office of Sustainability and the Environment
* Facilities Management

**Evaluation:**

* Are data visualizations aesthetically pleasing and accurately portrayed? Was the collection of data consistent across buildings? Which appliances did you choose to evaluate and why? Which building(s) or locations on campus did you audit and why? Are your recommendations easily implemented, practical, and do you explain their environmental impact? Can the presentation, data, and written report be understood and used by managers to apply changes? Are there behavioral solutions to supplement the upgrades to water infrastructure?

**Course Relevance:**

* Sustainability Certificate based courses