Course-Embedded Undergraduate Projects to Increase Public Awareness of Impacts on Coastal Environments

Laura Guertin, Penn State Brandywine, guertin@psu.edu

ABSTRACT
Undergraduate students can be effective communicators of processes, issues and challenges in the coastal environment. Even at an introductory-level, students can utilize their basic content knowledge and share their learning with the campus and greater community. Projects embedded in undergraduate courses shared outside of the classroom not only reinforce learning, but can satisfy the civic engagement mission of the university and improve the scientific literacy of the students as future citizens, whether they pursue a science major or not. Example service learning projects to teach youth about coastal issues include writing educational letters for kids for Camp Fire USA's Absolutely Incredible Kid Day, and hosting Girl Scout Badge Day programs teaching oceanographic content. College/adult programs include hosting campus panel discussions and debates, and creating social media campaigns and a podcasting series communicating coastal issues.

Why Have Students as the Communicators of Science

• Having students share what they have learned, even content from introductory-level courses, reinforces learning of the material.
• Students are often disconnected from and do not see the relevance of what they are learning. Focused classroom projects can have students make those connections.
• Students are well-connected with their peers through social media – informal communication channels still encourage discussion of science topics.
• Universities like having students engage in outreach projects – matches mission statement and/or strategic plan.
• As current and future citizens, students will be reading/hearing science news stories and voting on issues. As defined in the various science literacy principles (pictured below), a scientifically-literate citizenry is critical to education and awareness of coastal issues.