



## **The Communicating Ocean Sciences Network: Universities, Oceanographic Institutions, Science Centers, Aquariums, and Schools Working Together to Improve Education and Public Outreach Efforts**

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As the relationship between science and society evolves, there is an increasingly urgent need for scientists to engage and communicate more effectively with the public about scientific issues. Leaders in the scientific community are calling for science graduates to know how to communicate their scientific knowledge with the public. They argue that research training programs need to include communication skills. To address this call, the Lawrence Hall of Science (the public science center of the University of California, Berkeley) developed the Communicating Ocean Sciences (COS) series of university courses ([www.coseeca.net/programs/communicatingoceansciences](http://www.coseeca.net/programs/communicatingoceansciences)), with funding from the National Science Foundation. This presentation will describe this long-term model for promoting effective science communication skills, and the online network ([www.cos-rop.net](http://www.cos-rop.net)), which helps the partnerships that emerge from this program to be sustainable. Presentation attendees will learn how they can teach a COS course at their university and join the Communicating Ocean Sciences community.

The COS series comprises two university-level courses for undergraduate and graduate students in science related majors. The courses are currently taught at more than 25 colleges and universities around the United States. One course, COS K–12, is team-taught by a scientist and a formal educator and provides undergraduate students with experience communicating science to students in K–12 classrooms. In the other course, COSIA (Communicating Ocean Sciences to Informal Audiences), a scientist and an informal educator team-teach, and the students have the opportunity to communicate their scientific knowledge in informal science education (ISE) institutions, such as museums and aquariums.

The goals of the program are to: introduce undergraduate and graduate students—the future scientists—to the importance of education, outreach, and the broader impact of ocean sciences research; improve the ability of the scientists teaching the COS courses to communicate scientific concepts and research to their undergraduate students; provide both graduate and undergraduate students and scientists with direct experience using exemplary, research-based instructional materials that model constructivist pedagogy—the idea that people learn by actively interacting with their social and physical environment; promote thoughtful, mutually beneficial collaborations between scientists and educators as they co-teach the courses; and provide K–12 students from underrepresented populations and visitors to ISE institutions with significant ocean sciences instruction and university role models.

Providing university students with a background in current learning theory, and applying that theory through practical science communication experiences, will empower future generations of scientists to meet the communication challenges they will encounter in their careers.