

California Center for Ocean Sciences Education Excellence

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Abstract- Answering the call to create an environment in which collaborations among ocean scientists and pedagogical experts flourish, the California Center for Ocean Sciences Education Excellence (CA-COSEE) links the resources of Scripps Institution of Oceanography (SIO), University of California, San Diego; the Marine Activities, Resources & Education (MARE) Program at the Lawrence Hall of Science (LHS), University of California, Berkeley; the Marine Advanced Technology Education (MATE) Center at Monterey Peninsula College (MPC); and California Sea Grant (CA SG). With the shared goal of enhancing the general public's understanding and appreciation of ocean science, these organizations have launched a strategically crafted campaign to integrate ocean education, outreach and research. Poised to capitalize on the collective strength of a world-class research institution, a national leader in pre-college marine science education, an NSF-funded center dedicated to improving marine technical education, and the nation's largest Sea Grant program, California COSEE is 1) deepening the involvement of ocean scientists in K-14 education and outreach efforts; 2) providing greater access of under-served students to ocean science and to science and technical careers; and 3) increasing the degree to which ocean science is included in the K-14 science curriculum.

Four major complimentary strategies are being implemented. They include:

- establishing California COSEE as a resource for scientists that provides access to a spectrum of collaborative opportunities in K-14 ocean science education and outreach.
- developing and disseminating a model course, Communicating Ocean Science, that dramatically improves outreach to the K-12 community, including under-served students.
- creating a groundbreaking interactive Ocean Science and Technical Careers web site that will serve

students, workers, educators and employers and provide an effective tool for recruiting under-served students into relevant programs.

- developing a model for the creation of K-12 Ocean Immersion Sites that provides compelling mechanisms for scientists to partner with under-served local schools and infuse current research into pedagogically strong programs.

California COSEE offers the combination of vision and strategically linked resources necessary to be a strong contributor to the national COSEE network. Through a multifaceted approach, the partnership brings to bear the expertise and skills of highly regarded scientists and science educators to create singular opportunities for collaboration. The establishment of California COSEE represents a cultural shift within one of the nation's premiere research institutions and portends fundamental change in the perception of the value and efficacy of science outreach and education. Moreover, through sustained effort to conduct outreach among populations historically underrepresented as learners, teachers, researchers and technicians in ocean science, California COSEE is extending opportunities and experience in the field of ocean science and technology to the diverse population of California and the nation.