About STEP

Stewart receives DOE award. Kris Stewart, SDSU associate professor of math sciences and SDSC computational science curriculum coordinator, was one of 13 recipients of the 1994 Undergraduate Computational Science Award from the Department of Energy for her essay, "Developing Undergraduate Computational Science: A Personal QUEST." She received the award at a banquet hosted in Washington, DC, on September 16 by the Ames Laboratory, a member of the Institute for Physical Research and Technology operated by Iowa State University for the DOE.

The objectives of STEP are to provide computational science and pedagogy training to San Diego-area high school science teachers so that they can integrate computational science into their curricula, motivate minority students and those for whom English is a second language (ESL), assist participating teachers in becoming science leaders at their school sites or districts, and provide mentors for participating teachers in the form of local scientists who use high-performance computers.

STEPs selection process required choosing teams of two or more teachers from the same site. Women and members of underrepresented groups, along with teachers of large numbers of underrepresented students, including bilingual teachers, were given priority. Applicants had to exhibit basic computer literacy, math proficiency, and science competency. They also needed motivation, success with underrepresented and/or ESL students, and support from their principal or administration.

A three-week program, held each summer, instructs teachers in programming, telecommunications, computer applications, and visualization, as well as pedagogy and leadership skills. The first year introduced basic computational science. The second year is allowing teachers to continue developing their computational science skills and pedagogical skills for classroom instruction. (This summers program focused on visualization tools.)

The third year will enable teachers to assist their students in developing computational science projects. Throughout each of the academic years, the teachers meet periodically to discuss and critique projects, and give STEP directors feedback on the program. For more information:

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