

HELPING BRIDGE THE DIGITAL DIVIDE is a top priority of the University of California. As access to technology and the ability to use it become more essential to full participation in America's economic, political, and social life, UC Santa Cruz is expanding its educational programs and reaching out to K–14 schools to help bridge the digital divide. This information sheet presents an overview of this effort.

Mentoring in math and science



UCSC's **Jack Baskin School of Engineering** promotes diversity and access for all students in the fields of engineering and computer science through the efforts of its **Multicultural Engineering Participation (MEP) project**. MEP provides support for all students and, in particular, focuses on the unique needs of those students who are traditionally underrepresented in these fields due to disadvantages in academic, economic, or social conditions.

In 1999, UCSC's **Academic Excellence Honors Program (ACE)** received the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring in a White House ceremony. The ACE program focuses on attracting, retaining, and advancing underrepresented undergraduate students pursuing math- and science-related careers at UCSC. Over the past 12 years, the ACE program has helped approximately 2,000 students succeed in introductory-level courses in math and science. ACE students earn about 5 percent more A and B grades in their courses than students at large do, and their graduation rates are also higher than average.

The **Mathematics, Engineering, Science Achievement (MESA) program** is a nationally recognized statewide program administered by the University of California that helps educationally disadvantaged students succeed academically in math and science from the elementary level through college. MESA offers academic advising, group study, career exploration, parent involvement, and other services for students.

Fostering student success



MESA's **California Community College Program (MESA CCCP)** helps keep community college students in the educational pipeline and fosters their success in the fields of engineering and computer science by providing them with access to university resources and helping them transfer to UCSC or another four-year institution. Through its MEP project, UCSC collaborates with Cabrillo College, whose MESA students may receive tutoring and the use of School of Engineering facilities.

The **California Alliance for Minority Participation (CAMP) in Science, Engineering, and Mathematics** is a statewide program that supports and encourages undergraduates from underrepresented minorities to complete the B.S. degree. CAMP programs motivate participants through cooperative learning, internships, faculty-mentored research, and travel to professional conferences. UCSC's School of Engineering hosts **CAMP-MESA**, a two-week residential summer science fellowship program for underrepresented college students that offers participants an opportunity to work directly on research projects with UCSC mentors. The program emphasizes development of academic skills in math, writing, research, and computer applications and includes university enrichment workshops that help participants learn more about UCSC and university life.

ACCESS is a UCSC academic bridge program for community college students interested in pursuing a career in research science. Its mission is to provide students with opportunities to acquire knowledge and skills that will increase their transfer eligibility and academic success, and lead to greater diversity among university undergraduates in the sciences. The program focuses on students whose academic goals or potential may have been affected by disadvantageous circumstances and students who belong to groups with below-average UC enrollment rates. MBAMP is part of the California Math Project, a statewide initiative that supports mathematics education through the University of California and California State University systems.

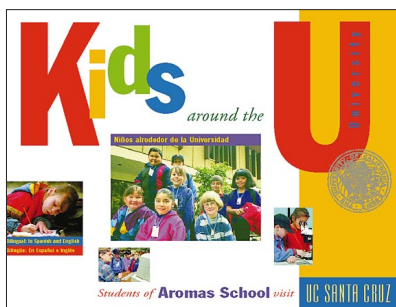
Making classroom equity a reality



The **Community Teaching Fellowship program** recruits UCSC students in math and science and encourages them to pursue teaching careers. The program places students in public school math and science classrooms in low-income urban areas. Students receive stipends for their work.

Administered by the UCSC Mathematics Department, the **Monterey Bay Area Mathematics Project (MBAMP)** provides professional development opportunities for teachers of mathematics in grades K–14. The program includes an intensive two-week summer institute at UCSC and academic-year seminars, workshops, and professional development activities.

Preparing the next generation



The **UC College Prep Initiative (UCCP)** provides online advanced placement courses to high school students in schools where few or no AP courses are offered. For schools that lack computers, UCCP has collaborated with Borderlink, a program offered by the San Diego and Imperial County Offices of Education to increase technology at local high schools. To date, 12 high schools in rural San Diego and Imperial Counties have benefited from this cooperative effort to provide computers and support. UCCP also offers training and support to students who lack the computer skills to enroll in online courses.

The systemwide **UC Links** project enhances the learning of children and undergraduates through community and school-based after-school programs. In Santa Cruz, UCSC faculty and students have teamed up with Barrios Unidos to create a program in which UCSC students and children participate in activities that include Internet exploration, homework, reading, and arts and crafts.

Kids Around the University (KATU) provides fourth graders with books and information that showcase the importance of higher education. Inspired by children at Aromas School in Monterey County who researched and wrote their own bilingual book about college life at UCSC called *Kids Around the University (Niños alrededor de la Universidad)*, the program encourages teachers across the state to replicate the project with their own students and local colleges or universities. The KATU curriculum encourages Web publication as a venue for kids to share the results of their investigations. KATU provides staff development support to teachers in strategies for effective use of technology in classroom publication. The project's focus on student research and the publication of findings lends itself well to the integration of technology, and the Internet furnishes the most accessible medium for sharing that information.

Reforming public policy



Manuel Pastor

Manuel Pastor, professor of Latin American and Latino studies at UCSC, sees the digital divide as one manifestation of a larger division in the digital economy that is emerging between well-trained, highly paid workers and the growing number of wage earners who toil at the low end of the pay scale with little hope of career development or advancement. In collaboration with **Working Partnerships USA**, Pastor is researching the availability of career-building services for the growing number of temporary employees in Silicon Valley. "There is a tendency to fetishize technology and to think that access to computers will make all the difference," says Pastor. "But access is only a fraction of the story." Among the public-policy reforms Pastor supports are legislation to ensure that temporary workers are paid the same wages as permanent workers who perform the same work; increased access to health coverage, ideally based on residency rather than employment; greater access to pensions and increased portability of pensions from job to job; and increased access to unemployment insurance for independent contractors, temporary, part-time, and seasonal workers.

Educating for the new economy



UCSC Extension is the largest provider of professional education in Silicon Valley and the Central Coast with enrollments that exceed 52,000 annually and offering more than 3,000 courses each year. UCSC Extension offers a wide variety of courses and programs including e-commerce, hardware and software engineering, art and design, behavioral sciences, humanities, business, Web and interactive media, teacher training, and intercultural business communication. UCSC Extension's Corporate Training Division provides on-site and customized training for businesses.

UCSC Extension is working with **Monterey County's One-stop Career Center** and the **NOVA One-stop Career Center in Santa Clara County** to offer a new Information Technology Support Specialist (ITSS) program to give individuals entry-level technical skills for a career in information technology. The program offers classroom instruction and extensive hands-on lab experience. In the workplace, well-trained ITS specialists can provide the critical first level of support companies need to deal with their daily IT activities, including Internet linkages, telephone systems, computers, and internal networks. The program responds to the needs of business, including the needs for skilled workers and training programs that can help workers advance. The program serves anyone interested in entering or moving up in the field of IT, including displaced workers, re-entry workers, and Welfare-to-Work clients. Unlike other Extension training programs, ITSS students do not have to have any specific level of formal education.