



FOCUS

Opportunities in Computing for Underrepresented Students

Alfonso F. Cardenas, Enrique A. Ainsworth, Stephen A. Jacobsen,
William J. Kaiser, David A. Smallberg
Henry Samueli School of Engineering and Applied Science
University of California, Los Angeles
Funded by the National Science Foundation, 2007-2010

The Frontier Opportunities in Computing for Underrepresented Students (FOCUS) project, UCLA Henry Samueli School of Engineering and Applied Science, is aimed at increasing the number of underrepresented minorities interested in, prepared for, and retained to baccalaureate degree completion in computing disciplines. A collateral goal is to prepare students who possess these skills, knowledge and resiliency, to competitively enter and succeed in either the computing workforce or in graduate studies. FOCUS form partnerships with the regional NSF STEP-UP project, the UCLA Center for Excellence in Engineering and Diversity (CEED), and industries. It builds learning communities around transition and bridging programs to provide an academic and non-academic support system that includes mentor networks, and industry and research internships. FOCUS offers summer computing immersion experiences and computer programming modules for community college students and UCLA computing undergraduates. There are opportunities for UCLA computing undergraduates to participate in faculty research projects throughout the year.

FOCUS conducts Counselor and Faculty Institutes to produce effective and lasting communities of practice and commitment to diversify the computing student population and workforce. The FOCUS project will impact over 400 students in the three years and can serve as a model for other institutions.

Community Colleges. Five Southern California community colleges—Cerritos, East Los Angeles, El Camino, Pasadena and Santa Monica—partner with UCLA to identify and support students towards participation in computing and a successful transfer into computing at a four-year university. Several other community colleges are also partnering to different degrees with FOCUS.



Industry Partners. A number of corporations support seminars, workshops and projects as well as summer internships. Among these corporations are Hewlett-Packard, Intel, Disney, and Microsoft.