

# Talent Expansion in Science and Technology: An Urban Partnership TEST:UP

California State University Fullerton, Mount San Antonio College, Santa Ana College  
**Program**

National Science Foundation - Science, Technology, Engineering, and Mathematics Talent  
Expansion Program (STEP): Total Award: \$2,500,000 over Five Years

Current: \$2,007,499 for Four Years

Contingent: \$492,501 for Year Five

## Overall Goals

Increase the number of STEM transfers to four-year universities and colleges

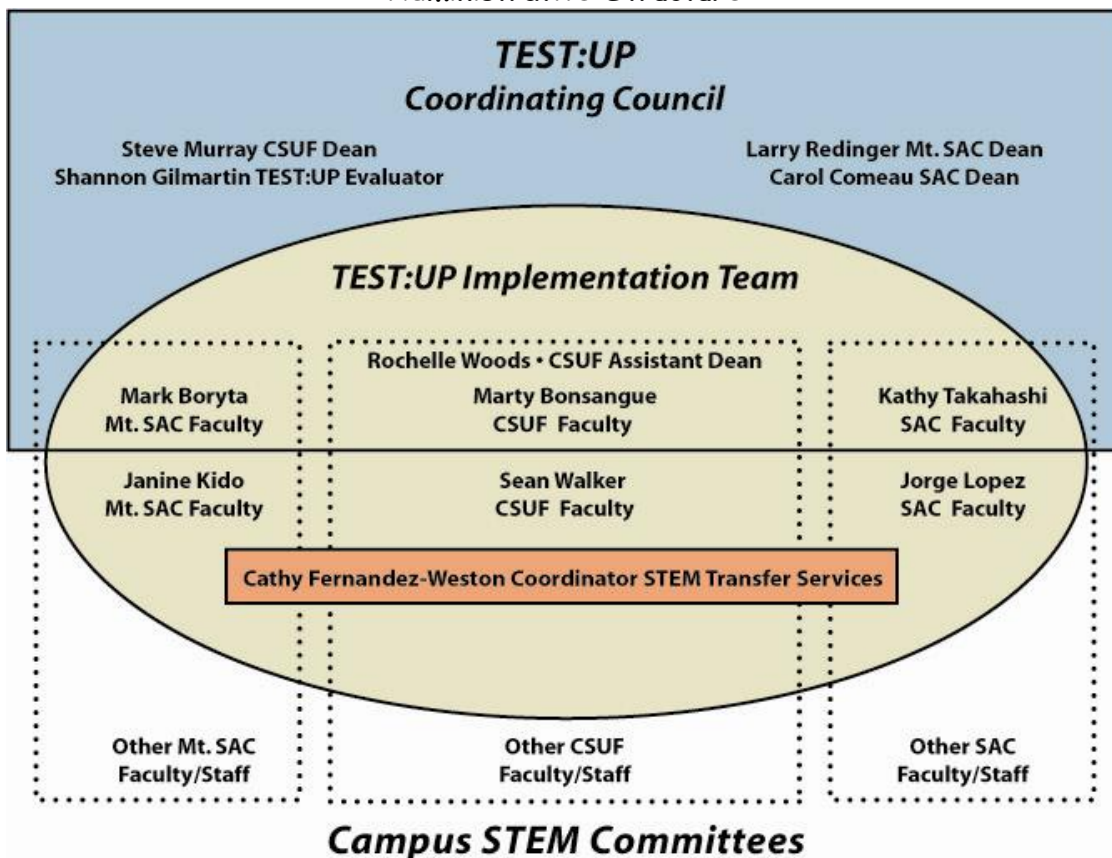
Increase the number of STEM AA degrees and baccalaureates

## Focus

Enhance STEM academic advisement and student engagement

Increase student success in entry-level mathematics and the science courses

## Administrative Structure



## TEST:UP Strategies and Programs

***Strategy 1: Improve counseling, guidance and mentoring opportunities and improve information and knowledge of STEM careers for Mount San Antonio College and Santa Ana College STEM students and potential STEM students***

**Coordinator for STEM Transfer Student Services (Cal State Fullerton):** Full-Time CSUF Position; Travel to partner colleges to provide advisement for STEM students, work with faculty and half-time counselors to implement study campaigns, assist with students at risk, and organize presentations and events

**STEM Counselors/Advisors (Mount San Antonio College and Santa Ana College):** Half Time Counselors/Advisers at each college; provide advisement for STEM students, work with faculty and CSUF Coordinator for STEM Transfer Student Services to implement study campaigns, assist students at risk, and organize presentations and events

**Web Sites and Video Presentations (Mount San Antonio College and Santa Ana College):** Improve web site information content and linkages to STEM academic programs, articulations with four-year institutions, events, career tracks, internships, and research opportunities

***Strategy 2: Develop support networks, including facilities and programs to develop learning communities, for STEM students at Mount San Antonio College, Santa Ana College, and Cal State Fullerton***

**Peer Group Program for Transfers (Cal State Fullerton):** Hiring of peer advisers as peer mentors to oversee learning communities made up of incoming CSUF transfer students majoring in mathematics, the sciences, and other STEM fields; special orientation and advisement events for these new CSUF transfer students

**Faculty Mentoring Programs (Mount San Antonio College and Santa Ana College):** Mentoring of non-STEM majors with promise or interest in mathematics, the sciences, and STEM careers; visits to research labs, career days, professional seminar presentations

**Science Resource and Study Centers (Mount San Antonio College and Santa Ana College):** development and improvement of science resource and study centers, including tutoring, access to specimens, books, maps, computer resources

***Strategy 3. Improve student engagement and learning in pivotal mathematics and science introductory discipline courses***

**Development and Implementation of Supplementary Instruction (Academic Excellence) Workshops (Mount San Antonio College and Santa Ana College; Cal State Fullerton):** implement Supplementary Instruction workshops associated with selected, key math and science courses using peer facilitators; work to establish a regional collaborative to provide a forum for discussing approaches and determine best practices that improve student success in these courses

**Tutoring Programs (Mount San Antonio College and Santa Ana College):** using peer tutors, expand tutoring programs and homework assistance in improved science resource and study centers; work with faculty, the Coordinator for STEM Transfer Student Services, and Counselors to encourage students to seek tutoring assistance

***Strategy 4. Develop a teaching intern program to improve the pedagogical and mentoring skills of Cal State Fullerton math and science graduate students interested in community college teaching careers***

**Teaching Intern Program (Cal State Fullerton, Mount San Antonio College, and Santa Ana College):** place two Cal State graduate teaching interns each year with faculty mentors at both Mount San Antonio College and Santa Ana College where they will be hired as part-time faculty and given teaching assignments or serve as workshop facilitators; with additional funding, interns will spend time advising, counseling, and serving as mentors to students

## **Internal Advisory Committees**

### **California State University, Fullerton**

- Dr. Ephraim Smith (Vice President, Academic Affairs) - Chair
- Dr. Silas Abrego (Associate Vice President, Student Affairs)
- Dr. Edgar Trotter (Acting Associate Vice President, Undergraduate Programs)
- Dr. Paul De Land (Chair, Department of Mathematics)
- Dr. Susamma Barua (Associate Dean, College of Engineering and Computer Science)
- Dr. Robert Koch (Chair, Department of Biological Science)

### **Mount San Antonio College**

- Dr. Virginia Burley (Vice President, Instruction) - Chair
- Dr. Debbie Boroch (Dean of Instruction)
- Thomas Mauch (Associate Dean, Counseling)
- Meghan Chen (Director, Learning Assistance)
- Matt Munro (Mathematics)
- Dr. Cindy Shannon (Biology)
- Dr. Kenny Huang (Chemistry)

### **Santa Ana College**

- Dr. Norman Fujimoto (Vice President, Academic Affairs) - Chair
- Dr. Micki Bryant (Dean of Counseling)
- Jubal Hampton (Chair, Department of Biology)
- Dr. Ted Yamada (Chair, Department of Chemistry)
- Dr. Cher Carrera (Chair, Department of Mathematics)
- Yolanda Mugica (Counselor and Coordinator, MESA)