

## Science Education & Mentorship In Latino Lives in Academia (SEMILLA)

UC Santa Cruz

Hispanic-Serving Institution (HSI) Grant

(Funding Agency - U.S. Department of Education)

**Grant Type:** Title III, Part F\*

**Grant Active Dates:** October 2016 - September 2021

**Grant Funding Amount:** \$5,700,000

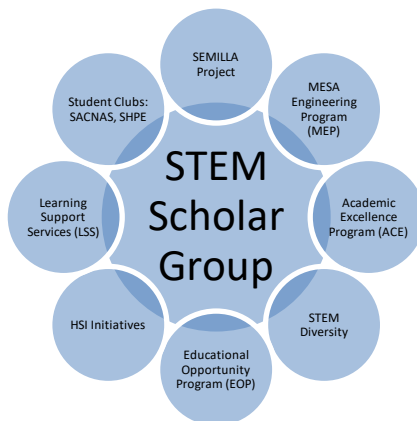
**Focus Areas:** College Math Seminars, Writing Support for Internships, STEM Learning Center, STEM Counselors, STEM Transfer Academies, Faculty and Teaching Assistant Professional Development

### Abstract:

The purpose of the UC Santa Cruz SEMILLA Project (Science Education & Mentorship in Latino Lives in Academia) is to cultivate equity-minded reforms designed to challenge and overcome institutional barriers so that STEM-intended Latino and low-income students increase their rates of STEM transfer, persistence and degree attainment. STEM fields are among the most popular majors for all UCSC students, including Latino and low-income students, who arrive at UCSC as STEM-intended. As these students begin their STEM foundational course work in mathematics, chemistry, biology and computer programming, we begin to see disparities in achievement for Latino and low-income students, which results in STEM attrition and fewer students declaring STEM majors. The SEMILLA project is designed to interrupt STEM attrition patterns and social reproduction rooted in both the under-preparation of students and the under preparation of UCSC to serve Latino and low-income STEM students. The SEMILLA project will serve as focal point and catalyst for a comprehensive set of interventions guided through analysis of student outcomes and inquiry teams to address barriers both in and outside the classroom.

*\*Title III, Part F Funding: Assist HSIs to increase the number of Latino and other low-income students attaining degrees in STEM and to develop a model for transfer and articulation agreements between two-year and four-year institutions in STEM.*





**Program Growth:**

- **Academic Excellence Program** - 177 Students served in various STEM courses
- **MESA Engineering Program** - Increased program by 17%
- **STEM Diversity Programs** - Offered 8 student workshops
- **Learning Support Services** - 775 Students served in various STEM Courses.
- **Educational Opportunity Program** - Four STEM Counselors supporting STEM students with academic, personal and financial concerns.

**College Math Academy - Math 3 (Precalculus)**

Building on the colleges (Merrill/Crown, Rachel Carson/Oakes) living learning community, the redesigned Math 3 course incorporates a lab, both focused on utilizing math to address social justice challenges.



“This math class has prepared for math in a way that no math class ever has. For the first time in my life, I feel more confident in my ability to learn and solve math problems.”

- Math 3 Student

**Faculty Professional Development & Teaching Assistant Training**

ESCALA Training (Summer 2017)		WestEd Training (Fall 2017)	
Faculty: 7	Graduate Teaching Assistant: 6	Faculty 1	Graduate Teaching Assistant: 4

**ESCALA Training** - ESCALA works specifically with HSIs to close the gap in educational access and completion rates for Latinos, through faculty development programming and remedial program evaluation.

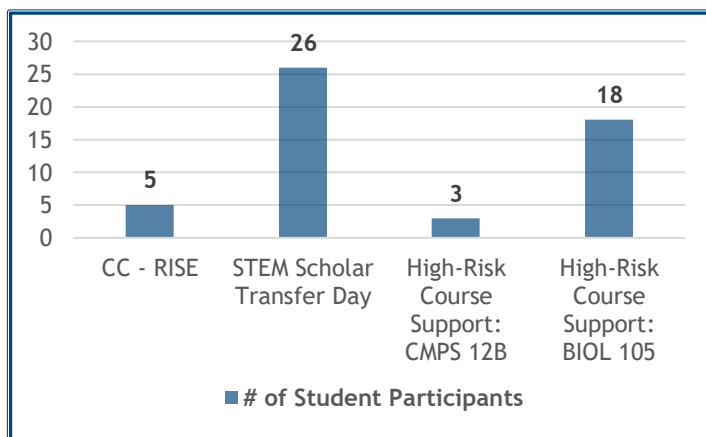
**WestEd Training** - Supported Math 3 instructor and Teaching Assistant with creating instructional materials that demonstrate greater challenge and support for Latino students to develop deep mathematical understanding.

**Transfer Pathways - Summer/Fall 2017**

**CC-Rise** - Program designed to foster and educate an interdisciplinary community of undergraduate researchers in deep subsea floor biosphere research by providing transfer students with hands-on research experience. Funding for 5 additional students.

**STEM Scholars Transfer Day** - One-day event hosted student panel, student/faculty networking lunch, advising and financial aid workshops.

**High-Risk Support Course Workshops** - Developed by UCSC faculty to support students for the rigor of the following two courses: CMPS 12B - Introduction to Data Structures and BIOL 105 - Genetics.



**Contact Information**

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