

SCIENCE EDUCATION & MENTORSHIP IN LATINO LIVES IN ACADEMIA (SEMILLA)

Grant Year 6 | UC Santa Cruz | Hispanic-Serving Institution (HSI) Grant | U.S. Department of Education

Grant Overview

Grant Type: Title III, Part F*

Grant Active Dates October 2016 – September 2022

Grant Year 6: October 2021 – September 2022

Grant Funding Amount: \$6,188,505

*Title III Part F Funding: Assist HSIs to increase the number of Hispanic 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.



Grant Partners

- Educational Opportunity Programs (EOP)
- Center for Innovations in Teaching and Learning (CITL)
- Learning Support Services (LSS)
- Academic Excellence Program (ACE)
- Cal-Teach
- MESA Engineering Program (MEP)
- STEM Diversity Research Programs
- Mathematics Department
- Education Department

The SEMILLA grant was designed to interrupt STEM attrition patterns and social reproduction rooted in the lack of opportunity for students and the under preparation of UCSC to serve Latinx and low-income STEM students. As a result, SEMILLA served as a focal point and catalyst for a comprehensive set of interventions guided by analysis of student outcomes and inquiry teams to address barriers inside and outside the classroom.

Identifying Student Needs

- There are high rates of attrition for STEM intended Latinx and low-income students
- Identified courses represent a significant barrier to Latinx and low-income student access

SEMILLA broke down institutional barriers enabling campus units to expand and serve more students in STEM courses. This was achieved through the following grant initiatives:

- Holistic STEM counselors/Early alert
- STEM Scholars group
- SEMILLA Scholars
- STEM Transfer Programs
- STEM Sense of Belonging
- Faculty and Teaching Assistant Professional Development

Impact

SEMILLA provided a framework to foster cross-departmental efficacy, leading to better working relationships and a culture shift of employing equity-minded practices.

The contents of this summary were developed under a grant from the Department of Education. However, they do not necessarily represent the policy of the Department of Education and you should not assume endorsement by the Federal Government.

Initiatives Sustained

RISE Scholars Program & Peer Mentors

The Rising, Inspiring & Science Excellence Scholars (RISE) Program, formerly known as the SEMILLA Scholars Program, is comprised of professional and student staff that support incoming STEM-intended, first-year, and underrepresented students. The program facilitates student engagement in academic, career, social, and community activities for their successful transition towards STEM major declaration and degree completion.

Participants of the program received higher grades in major gateway STEM courses compared to non-participants.



"This program helped me out so much academically and personally. I met so many awesome friends and amazing mentors that understand what we are going through to help us succeed. This is truly an amazing opportunity and creates long-lasting friendships and mentors for life." - Destiny Gomez, SEMILLA Scholar

Advising & STEM Hub



Advising capacity for STEM-intended students was increased with the hiring and sustainment of four EOP STEM Counselors who provide holistic advising, and coordinate a range of support programs including early alert embedded course advising. **To date, they have supported 42 courses across disciplines**, in PSci and Engineering.

The STEM Hub, which opened in 2019 at the Science & Engineering Library, will continue to provide students with a sense of belonging through tutoring and peer advising provided by LSS and EOP.

These student-centered interventions including the RISE Scholars program, the counselors, and the STEM Hub are now sustained.

Faculty & Teaching Assistant Support

The Teaching and Learning Community (TLC) provided a professional space for instructors of large-enrollment STEM courses to share pedagogy and assessment practices that promote STEM equity.

Graduate students served: 166*

Additionally, the STEM Equity Coordinator hired through this grant, led the "Preparing for Inclusive Teaching" TA professional development workshop designed to strengthen graduate students' inclusive teaching practices and build cross-departmental community.

Use of aggregated data has been instrumental in the development of IRAPS dashboards, such as the Departmental Equity Profile, and CITL's ability to respond and make recommendations to departments for equitable outcomes.

Creating a Culture Shift



Academic Support & Tutoring

ACE and LSS made significant changes of practice due to the SEMILLA interventions and collaborations.

LSS has implemented mentoring and professional skills development across all their tutoring programs.

ACE's development of computer science courses provided the impetus to hire engineering staff to develop and expand deeper into the engineering curriculum.



Transfer Programs

The EOP STEM Transfer and ACE Jumpstart programs facilitated collaboration of campus units by welcoming incoming first-year and transfer students and offering an extensive orientation.

Students gained a stronger sense of belonging, were more prepared for introductory STEM courses, were more likely to persist in their major, and became involved with research.

"... SEMILLA helped me become aware of all the resources and opportunities on campus during my first few quarters. This was crucial as I found out about ACE, MSI, and Small Group Tutoring [LSS] which allowed me to get the extra help for my classes." -Jonathan Green, SEMILLA Scholar

Director's Message

I am pleased to share with our campus partners and other stakeholders this year's grant summary. When SEMILLA first began, my role was that of a practitioner so it has been exciting to be on the grant management side for the past few years. Institutional transformation does not take place from one year to the next, but instead over many years. I firmly believe that the strategies we employed and grant activities, accompanied with the use of an Integrated Logic Model, provided a framework to work collaboratively and intentionally. By centering holistic advising, collaborative learning and teaching, and academic skill development, we witnessed improved sense of belonging, academic performance in STEM gateway courses, and persistence with our Latinx students.



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