

Grant Title:

Fostering an Equity-Minded Student Success Culture in STEM Through Faculty Development

About the Grant

While SMC continues to set the bar for transfers in the state, we are constantly striving for improvement. For our Black and Latinx students in STEM, they continue to experience equity gaps in terms of expected graduation and transfer rates, grade point averages, and completion rate in math and other STEM courses.

We hope to build on previous equity-focused work at the College and endeavors to identify, implement and investigate interventions that affect student success and subsequent graduation, including the use of effective classroom-based curricular materials and instructional practices. A key component of this project is to generate and disseminate new knowledge.

The National Science Foundation (NSF) **Hispanic-Serving Institution Program** has awarded Santa Monica College (SMC) a grant that will total nearly \$2.5 million over five years. The grant—entitled “**Fostering an Equity-Minded Student Success Culture – STEM through Faculty Development**”—will allow SMC to consolidate the work of its **STEM Science and Research Initiative** and the **Center for Teaching Excellence** to develop an equity-minded student success culture, one that helps traditionally underrepresented students succeed in STEM (Science, Technology, Engineering, and Mathematics) fields and careers.

The NSF funds research and education in most fields of science and engineering through grants and cooperative agreements to more than 2,000 colleges, universities, businesses and research organizations throughout the United States. Through its Hispanic-Serving Institution Program, the NSF focuses on enhancing the quality of undergraduate STEM education at HSIs, and seeks to increase the retention and graduation rates of students pursuing associate or baccalaureate degrees in STEM.

“The National Science Foundation is committed to supporting projects like this, with the potential to create more inclusive learning experiences and ensure that STEM undergraduate students have the support they need to achieve their educational goals,” said **NSF Program Director Talitha Washington**. “Beyond looking at students, this project will engage faculty, helping them develop effective strategies to create a culturally diverse student population.”

The five-year grant will allow SMC’s STEM Program to bring together and capitalize on the equity-focused work of the Science and Research Initiative and the Center of Teaching Excellence to study and create interventions that affect the success of students in STEM, including the use of curriculum and instructional practices. The work will take place under a “three-pronged” approach: professional development for faculty; pilot and assessment of research-based innovations; and dissemination of the project’s outcomes both within SMC and with higher educational institutions across California and the U.S.

Grant Abstract

The full abstract for this grant can be found on the The National Science Foundation official website .

Principal Investigators (PIs)

- Edna Chavarry - Principal Investigator
- Ciarán Brewster - Co-Principal Investigator

SMC's STEM Equity Coaches

- Ciarán Brewster - Earth Science
- Lisa Collins - Earth Science
- Tram Dang - Physical Science
- Jamar London - Mathematics
- Kristin Lui-Martinez - Mathematics
- John Quevedo - Mathematics

SMC's NSF Participants

- Alex Bene - Mathematics
- Andria Denmon - Life Sciences
- Forouzan Faridian - Physical Science
- Chris Grant - Life Sciences
- Hafedh Herichi - Mathematics
- Sandra Hutchinson - Life Sciences
- Jing Liu - Earth Science
- Travis Pecorelli - Physical Science
- Novita Phua - Mathematics
- Poliana Raymer - Life Sciences
- Alaisen Reed - CSIS
- Kyle Strohmaier - Physical Science