



## THE FUTURE OF TEACHING SCIENCE

### Noyce Scholars learn how to inspire students whom science has historically ignored

Do scientists look like you? Biology Professor Ed Himelblau and his colleagues want high schoolers across California to answer “Yes!” to that question, no matter where they go to school. The key is middle school and high school science teachers.

“If you ask a hundred science undergrads, ‘What got you interested in a science major at Cal Poly?’ the vast majority would point to a teacher who gave them an experience in which they could see themselves as scientists,” Himelblau said. “We want all students, regardless of where they grow up and attend school, to have a teacher like that.”

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— BIOLOGY PROFESSOR ED HIMELBLAU

With a \$1.2 million grant from the National Science Foundation, Himelblau and his colleagues aim to recruit and educate future teachers who understand how to reach students from historically marginalized groups.

“Science has missed out on a huge amount of talent by not being as inclusive as it should be over the last couple of decades,” Himelblau said.

Through the Noyce Scholars Program, science and engineering majors who commit to becoming teachers can receive \$15,000 annually to fund their senior year and teaching credential. In exchange, they agree to teach at least two years in a high-need school district.

The Noyce program helps future teachers bring Learn by Doing activities into their classrooms in inclusive and effective ways. Scholars have the opportunity to engage in real-world research. They also receive training in how to teach science in a way that builds on the cultural strengths and experiences of students.

“Great teaching can be learned,” said Jane Lehr, director of Cal Poly’s Office of Student Research and one of the leaders of the project.

Cal Poly has also partnered with Cuesta College to help smooth the transition between the schools for students interested in teaching science. Students of color make up a higher percentage of transfer students than of entering first-year students at Cal Poly.

Though Noyce Scholars are only required to teach for two years in high-need districts, most Cal Poly Noyce alumni remain in these districts and are now moving into leadership positions. Lesley Anderson (Biological Sciences, ‘12; Single Subject Teaching Credential, ‘13) has brought her Noyce experience into a new role as an instructional coach for the High Tech High Central Office in San Diego. She helps teachers design hands-on science, technology, engineering and math (STEM) projects for more than 5,000 K-12 students at Title 1 campuses.

“My goal is to help marginalized students become champions of science and mathematics,” Anderson said. “The Cal Poly Noyce Scholarship Program provided me with opportunities to participate in research as a scientist through the STAR Program and supported me in turning those research experiences into learning opportunities that inspire all students.” //

**Pictured (from left):** former Noyce Scholars Anthony Overton (BS, Chemistry, ‘10; MA, Education, ‘17), now principal at Paso Robles High School; Lesley Anderson (Biological Sciences, ‘12; Single Subject Teaching Credential, ‘13), now instructional coach for the High Tech High Central Office in San Diego; and Brittny Nation (Biochemistry, ‘11; Single Subject Teaching Credential, ‘12), now a chemistry teacher at San Lorenzo High School near Oakland. **Photographers:** (left) file photo (center) courtesy of Lesley Anderson (right) Tony Turreto