

First-Generation UCSB Engineering Students Honored as ESTEEM Scholars

Student scholars find support in new program that recognizes academic merit and encourages college completion for first-generation engineering students



2012 UCSB ESTEEM Scholars

The inaugural group of 2012

ESTEEM Scholars was honored at an award ceremony on Friday, February 24, where they were recognized by UC Santa Barbara dignitaries, faculty advisors, and fellow students. Launched in 2011, the Enhanced Support, Training, and Experiences for Engineering Majors (ESTEEM) program at UCSB is funded by the National Science Foundation and seeks to enhance graduation rates of promising first-generation college students majoring in engineering.

Eleven students from [UCSB Engineering](#) departments of [Chemical Engineering](#), [Electrical Engineering](#), and [Mechanical Engineering](#) comprise the 2012 ESTEEM Scholars. The students will each receive a scholarship based on their unmet financial need, as well as resources for tutoring and studying, and career mentorship. This year's ESTEEM Scholars include:

Behzad Anbarani	Roberto Ortega
Jarad George	Antonio Ortiz
Ryan Helling	Katherine Santizo
Yin-Tsun Lam	Sandra Skendzic
Jenny Lei	Alfredo Torres
Victoria Melero	

Budget cuts and economic impact are forcing students to make tough decisions about how to prioritize education, financing, employment, and ? in many cases ? supporting their families. ESTEEM's founders saw a need to support first-generation college students, because they face a variety of obstacles that their academic peers may not, such as coming from a low-income family or lacking the example of a relative or friend who has completed college. Co-founder Phyllis Brady, Assistant Director of the Mathematics, Engineering, Science

Achievement (MESA) program said that "students don't always come forward when they are in need."

"Academically strong students were struggling, sometimes dropping out of school without notice," commented Brady. "We wanted students to know they have resources and people committed to assisting them with internships, applications, studying, and getting financial aid."

A study by the U.S. Department of Education in 2000 showed that 68% of students with parents who held bachelor's degrees also obtained a bachelor's degree, whereas 24% of first-generation college students completed a 4-year degree.

"More than half of engineering undergraduate students have a close relative in the engineering profession. First-generation college students in engineering lack these role models, and consequently have a harder time finding mentors and establishing a professional network," said ESTEEM co-founder, Professor Susannah Scott of Chemical Engineering. Because of this, commented Scott, the attrition rate of first-generation college students in the engineering sciences is considerably higher than it is for students who have role models and mentors within their families or social circles.

Scott kick started the ESTEEM program by securing a \$600,000 grant from the National Science Foundation (NSF) in 2011. UCSB's College of Engineering contributed an additional amount to support community outreach events, as well as providing a designated study lounge and offices on campus.

Katherine Santizo, a Chemical Engineering junior, said ESTEEM program mentors helped her with internships and preparing for the GRE. The next chapter for Santizo includes deciding on a graduate program to pursue and applying for grad school next year. Her experience as an undergraduate researcher in the lab of Professor Arturo Keller, where she is studying the effects of nanoparticles in mussels, was central to her decision to go to graduate school. "I was inspired by Professor Keller's background," Santizo says, "because he was the first Latin American Engineering professor I met on this campus." Having the role model of Professor Keller gave Santizo confidence that she, too, could become a professor. "He started out with a bachelor's degree in Chemical Engineering just like I am," she says of her mentor, "and he became a professor just like I want to. I definitely felt that meeting him was an important coincidence."

Electrical Engineering senior Alfredo Torres also credits his mentor, Jock Bovington—a graduate student in the Dan Blumenthal and John Bowers research groups—for encouraging him to pursue graduate work, just as Torres is encouraging his younger siblings to pursue a college degree. "The most challenging aspect of going to college as a first generation student is the lack of advice from a close relative or friend," Torres explains. "My mentor has given me a great example that I hope to set for my siblings and other students, and I would advise first generation students to find a support system, too. They should take advantage of programs like ESTEEM, because there are many opportunities for STEM majors that can motivate us to continue our pursuit of higher education."

"We are proud to support and honor the achievements of our new ESTEEM Scholars," said UCSB Chancellor Henry Yang in his address to the Scholars. During his address, Chancellor Yang discussed his origins as a first-generation university student. His remarks earned nods of recognition from several faculty members and academic leaders, who also experienced being the first in their families to pursue a college degree.

College of Engineering Dean, Rod Alferness, commended the first ever group of ESTEEM Scholars for their success in the engineering disciplines, and thanked the faculty members who have supported the program. "All of you are helping these students to succeed," said Alferness. "They are the ones who will find solutions to some of society's most challenging problems."

Images



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