UC SANTA BARBARA

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Seizing Opportunity

Determined to position herself for a successful future, Esmeralda Cruz is about as dedicated as teenagers come. Working hard and studying harder, she's laser-focused on getting into college and, ultimately, forging a solid career.

Asked about her drive, Cruz reveals a singular, sweet motivation: To give back to the mother who she says has devoted her own life to paving a fruitful path for her kids.

"As I see her tired, weary brown eyes full of encouragement, hope, pride … that's enough for me," Cruz, of Santa Maria, recently wrote on the subject. "Enough to push me forward. Enough to push me to my limits. Enough to give all I have."

Elaborating in a subsequent interview, Cruz said, "My mom especially has done so much for me to give me a better life, so I want to do something for her. And I feel like working hard and doing the best I can will pay off."

It already is.

Cruz, who aspires to an elite university education and has the grade-point average to make it happen, is one of 77 high school students spending a chunk of their summer at UC Santa Barbara, participating in the highly competitive Research Mentorship Program (RMP). Top-achieving teens from across the country and around the world apply for RMP's intensive course in graduate-level research, which puts them in labs, and in the field, alongside UCSB faculty, postdoctoral researchers and advanced graduate students.

Not only is Cruz attending — she's doing so on full scholarship. She and fellow Santa Maria High School students Carla Mendoza and Justin Suarez are among the 26 students afforded the opportunity via philanthropy. RMP seeks to provide such support each year for some 30 kids who are from underserved communities and/or are first-generation students, and who might not otherwise be able to participate.

‘It's Been Amazing’

None of them takes the opportunity lightly.

“I come from a low-income family and just getting the scholarship for RMP, giving me the ability to go to this camp, is really going to impact me in the long run — it's something that is going to help me in the future,” said Mendoza, who is studying the politics of nationalism and identity in Ukraine with mentor Sergey Saluschev, a doctoral student in history. “The experience that I've gained so far, being surrounded by students who are very high achievers and very competitive and want to do their best has shaped me into a better person because I too inherit some of that encouragement and inspiration to go to a higher learning institution.

“The whole experience of RMP — learning to write a research paper, living on UCSB's campus and making new friendships, learning how to balance academics and social life — it's just been amazing,” added Mendoza, whose college wish list includes UCSB and Columbia. “It's given me the college life experience that I wouldn't have been able to get. And it's going to help me later on when I actually do go to college.”

Ditto for Suarez and Cruz. Studying they know, test-taking they know and academic success they know. Along with Mendoza and all the RMP students, they've earned the high marks in high school required to get them here. But research is a different animal. Data analysis, coding and spreadsheets — oh my.

“It's been a real big challenge … this is something new to me, and completely different from school,” said Cruz, whose project with mentor and psychology doctoral student Megan Reed is looking at the impact of culture on creativity. “I think it's going to help me improve in my classes to see that's not the hardest thing. Here, with research, you don't always know where you're going — only that you're doing it to find something new. It's completely different than always having the answer.”

Suarez concurred, noting in particular their simultaneous work on a paper, a research poster and a public presentation of their project and findings.

“When I came here I thought I was prepared, but then I realized… it’s a huge journey right now, consisting of a lot of work,” Suarez said of his project on the effect of people’s opinions on coastal usage in Chile, with geography Ph.D. candidate Tammy Elwell. “Working with my mentor has been amazing. Whenever I get stuck or have a problem, I can go to her and she’ll help me work through it but also encourage me to try to find out for myself, to see if I can solve it, because she said that’s a major, important part of research — to work your way through problems yourself. This is a huge and different experience that most people won’t get.”

Reaching Their Potential

The Santa Maria trio arrived at RMP by way of another UCSB offering, the Early Academic Outreach Program (EAOP). Serving some 1,000 high school students each year from Fillmore to Oxnard and Bakersfield to Carpinteria, EAOP places UC staff on high school campuses to advise students in college placement tests, admissions requirements, financial aid possibilities and more.

For the first time in several years, EAOP now has an on-site advisor at Santa Maria High School. It’s no coincidence that RMP has in its 2015 ranks Cruz, Mendoza and Suarez — the program’s first Santa Maria participants in years — or that all three students credit that adviser, Juan Gallardo, with encouraging them to apply for the prestigious research course.

“Santa Maria High has always been an institution that has amazing students with indefinite potential,” said EAOP’s Gallardo, an alumnus of that high school himself. “My proudest moment was when all of my students that got accepted to RMP received a full scholarship. It was yet another reminder that the community that donates to these scholarships is passionate and dedicated to not letting a low-income background be a factor in the development of a high-potential student.

Speaking about Cruz, Mendoz and Suarez, who are among the top performers in EAOP’s Santa Maria cohort, Gallardo added, “I envision nothing but amazing things to come for these students.”

Similar Goals and Aspirations

With a Ph.D. in mechanical engineering, RMP director Lina Kim knows a thing or two about research. And that's in part what has made her so passionate about the program she runs through UCSB's Office of Summer Sessions. But the bigger part, she said, is the unparalleled opportunity it provides to promising students at an early age.

"When I see these students, I see myself in them — I see the spark in their eye," Kim said. "You can immediately see that they're really excited about research and they become really engaged. Not just in the topics they're learning but the topics other people are learning as well.

"Every year we're seeing an increase in applications from students from all over the world," she continued. "And what's so great about that is that a high school student from Santa Maria can meet someone from a high school in China, and they get to know each other and realize they have very similar goals and aspirations in life."

Preparing future collegians for the university life and all that it entails is exactly what RMP aspires to do. Personal development is as much a priority here as academic advancement and a hands-on experience in high-level research. Mixed with instruction on writing technical papers, pitching projects and presenting research are activities designed to foster students' social growth and their ability to build peer support systems while they're away from home.

The mentors play a key role in all of it.

Spanning the disciplines, from engineering and environmental studies to physics and philosophy, the mentors pitch their own research to RMP participants when the program first kicks off. It's left to the students to select which to tackle, a programmatic twist designed to boost confidence from the get-go.

Megan Reed, a second-year UCSB doctoral student in psychology, is a first-time RMP mentor this summer. Inspired to apply by friends who'd done it and loved the experience, Reed, now four weeks into it, said she well understands why.

"It's great to get these fresh, excited students to work with," said Reed. "It's fun working with someone who's really green and just wants to learn, and is excited to learn new things. For them it's a great opportunity to explore a possibility that you've never thought about — especially for high-schoolers who are used to just the basic, core classes. It's great to have a shakeup like this. I wish I'd had an

experience like this.”

In a way, she is. As are they all.

The RMP mentors may know their way around research, but for those who are moving toward potential careers as academics and professors — and most are — what they’re learning about teaching, and about themselves, in the program is invaluable. That’s according to Elwell, who is mentoring this summer for the second time.

“It’s a learning exchange where I probably learn even more as a mentor than what Justin might experience,” Elwell said of working with Suarez. “It involves patience and kindness, learning how to communicate, learning how to listen. This has really been a reflection for me of how much mentors have helped me. I’m just speechless thinking how much people have invested in me to be where I am. Now I’m in that position of mentoring and it feels great. I’m very grateful.”

Major corporate and philanthropic donors to RMP for 2015 include Cancer Foundation of Santa Barbara, the Towbes Foundation, Bank of America Foundation, Mentor Corporation and the Jack Kent Cooke Foundation.

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.