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LIVING LABORATORIES

Creeks and Coastlines Become Classrooms for Cal Poly Students
ON COVER:
Cal Poly students study the health of local fisheries off Port San Luis
Photo by Brittany App

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Location, Location, Location

Our cover story examines how the area’s beautiful creeks and coastline become living classrooms and laboratories for College of Science and Mathematics students researching real-world problems such as overfishing and water contamination.

Elsewhere, we show how Orfalea College of Business students benefit from the Central Coast’s deep store of business expertise.

And we introduce you to grads Yishai and Kristin Horowitz, whose company, All Out Events, helps local residents experience the adventure the area has to offer.

Cal Poly Ranked Best in the West by U.S. News for 20th Year

For the 20th straight year, Cal Poly has been rated the best public master’s university in the West in U.S. News & World Report’s 2013 America’s Best Colleges guidebook. Cal Poly ranked sixth in the magazine’s overall list of the West’s best universities, including both public and private institutions that provide a full range of undergraduate and master’s-level programs but few, if any, doctoral programs.

“U.S. News ranks colleges that grant doctoral degrees, such as those in the University of California system, in a separate category. Being named Best in the West for 20 straight years is a terrific acknowledgment of Cal Poly’s sustained excellence over a long period of time,” said Cal Poly President Jeffrey D. Armstrong. “The credit belongs to our faculty and staff for their unwavering dedication and commitment to our students’ success, and it underscores the power of our Learn by Doing philosophy.”

Three Cal Poly Professors Accepted to National Coleman Fellows Program

Three Cal Poly professors representing three of the university’s colleges have been accepted into the Coleman Foundation Faculty Entrepreneurship Fellows program, which brings entrepreneurial education to 16 university and college campuses throughout the U.S. Bob Crockett, director of General Engineering in the College of Liberal Arts, and Umut Toker, City and Regional Planning Department in the College of Architecture and Environmental Design, were selected to spend a year at the University of Washington in Seattle working on their innovative teaching ideas.

Edward Devitt, director of General Engineering in the College of Science and Mathematics, was also named a Coleman Fellow. Devitt was a key player in the creation of PolySat, the university’s satellite program.

Cal Poly Licenses CubeSat Technology to Tyvak Nano-Satellite Systems LLC

Cal Poly’s Research and Graduate Programs office entered into a license agreement that allows Tyvak Nano-Satellite Systems LLC to develop and sell the patent-pending, small-satellite technology called CubeSat System, Method, and Apparatus. The CubeSat technology represents state-of-the-art miniature low-power electronics. It is a product of Cal Poly’s nationally recognized PolySat program. The technology provides a smaller, less costly, more flexible satellite solutions design that is re-usable and easily adaptable across a wide range of satellite missions.

Cal Poly’s PolySat Project was founded in 1999 and includes a multidisciplinary team of undergraduate and graduate engineering students working to design, construct, test, launch and operate small satellite systems, otherwise known as CubeSats. Tyvak Nano-Satellite Systems LLC is a new company founded by former Boeing employee Charles S. “Scott” MacGillivray, and Cal Poly faculty and students from the Aerospace, Electrical, Computer Engineering and Computer Science departments. MacGillivray led Boeing Phantom Works’ nano-satellite programs for nine years.

Cal Poly CubeSat technology.

EDITOR’S NOTE

“Our cover story examines how the area’s beautiful creeks and coastline become living classrooms and laboratories for students.”

Devoted faculty and staff, loyal alumni, cross-disciplinary work, and the Learn by Doing education—these are some of the factors that converge to create the unique Cal Poly experience.

This edition of Cal Poly Magazine looks at the importance of Cal Poly’s location—how it creates an empowering environment for students, presents opportunities for research and entrepreneurship, and becomes more than just a stopping point for many alums.
llected to participate through the Cal Poly Center for Innovation & Entrepreneurship. This marks the first time Cal Poly has been awarded this distinction. Cal Poly faculty fellows will develop courses in their academic discipline that advance self-employment and entrepreneurship, guided by Jonathan L. York, associate professor of entrepreneurship and director and founder of the Cal Poly Center for Innovation & Entrepreneurship (CIE).

New Robotics and Automation Lab Prepares Students for Manufacturing

A new robotics and automation lab in Cal Poly’s Industrial and Manufacturing Engineering Department will help students gain hands-on exposure to cutting-edge systems and technology. The Gene Haas Laboratory for Robotics and Automation, which opened in mid-September, is the result of a $50,000 gift from the Gene Haas Foundation. The lab provides new hardware, software and precision tools for Cal Poly’s already strong manufacturing engineering program. That gift also inspired an array of state-of-the-art technology donations from other industry leaders including Yaskawa America, Rockwell Automation, Keyence and Trust Automation. “Labs like this develop the high-talent workforce needed for advanced manufacturing, which is so vital to national prosperity,” said College of Engineering Dean Debra Larson. “It’s a great investment.”

Professor Awarded $2.5M Grant to Foster Preschoolers’ Interest in Astronomy

Jennifer Lipson, associate professor of child development in the Psychology and Child Development Department, is part of a team that has been awarded a $2.5 million National Science Foundation grant to reinforce and extend preschoolers’ interest in astronomy-related topics. The Astronomical Society of the Pacific (ASP) will spearhead the four-and-a-half-year project, titled “My Sky Tonight,” which is designed to reveal the hurdles to early childhood science learning and develop ways to promote preschool-age science learning through astronomy. The ASP will serve as principal investigator and partner with co-principal investigators Lipson, Julia Plummer at Penn State University and Maureen Callanan from UC Santa Cruz. The number of preschoolers visiting U.S. science centers and museums has been increasing over the years. The overall goal of the project is to help these venues offer effective informal learning opportunities for families with young children that will promote children’s developing identities as “kids who like science.” Lipson is an expert in young children’s science learning. Her contributions to this project will focus on identifying children’s ideas about and interest in astronomy, examining parent-child conversations about astronomy, and exploring ways to support children and their families in developing a greater understanding and interest in that area.

Cal Poly Welcomes Christine Theodoropoulos, New Dean of College of Architecture

Christine Theodoropoulos, most recently head of the Architecture Department at the University of Oregon in Eugene, is the new dean of Cal Poly’s College of Architecture and Environmental Design. Theodoropoulos – who is also a licensed architect and registered professional civil engineer in California – assumed her new post in September. “Christine’s blend of academic and professional experience as a teacher, university administrator, architect and civil engineer make her an excellent choice to lead our College of Architecture and Environmental Design,” said Cal Poly President Jeffrey D. Armstrong. “Her career has embraced the kind of multidisciplinary approaches that will enrich our Learn by Doing programs.” Theodoropoulos had served as head of the Architecture Department in the University of Oregon’s School of Architecture and Allied Arts since 2003. She had been a faculty member in the department since 1997.

Cal Poly Appoints George Hughes New Chief of University Police

Cal Poly has welcomed George Hughes, most recently leader of the Colorado School of Mines police department, as its new chief of University Police. Hughes assumed his new role Aug. 31. He brings more than 20 years of law enforcement experience to Cal Poly. Hughes succeeded Chief Bill Watton, who retired in August after 10 years leading University Police. Hughes oversees the police and parking departments with 45 staff members, including 18 sworn officers, and an annual budget of approximately $8 million.

Cal Poly Welcomes Douglas Epperson, New Dean of College of Liberal Arts

Douglas Epperson, a veteran of liberal arts higher education and most recently dean at Washington State University, is the new dean of the College of Liberal Arts at Cal Poly. He assumed his new post in August. “Doug understands and appreciates the special niche that Cal Poly has in higher education as one of the nation’s few comprehensive polytechnic universities,” said Cal Poly President Jeffrey D. Armstrong. “Doug brings to Cal Poly outstanding experience as both an administrator and a faculty member who also has created an impressive body of scholarship.” Epperson had served as dean of Washington State’s College of Liberal Arts since 2009. Before Washington State, Epperson spent his career at Iowa State University – beginning as an assistant professor of psychology in 1979 and ending with a five-year stint as associate dean of the university’s College of Liberal Arts and Sciences.

Cal Poly Claims National Concrete Canoe Championship for Third Year in a Row

For the third consecutive year, Cal Poly won gold at the National Concrete Canoe Competition, considered the America’s Cup of civil engineering. The team’s three-peat came in a canoe named Prospector in honor of the California Gold Rush. The American Society of Civil Engineers’ (ASCE) 25th annual National Concrete Canoe Competition was held over the summer at the University of Nevada, Reno. Cal Poly was among 22 top engineering schools at the prestigious event, which challenges students’ knowledge, creativity and stamina while showcasing the versatility and durability of concrete as a building material. The competition was broken into four equally weighted categories: final product, design paper, technical presentation and races. Cal Poly placed first in three categories and third in technical presentation. “We put in 5,250 hours on the development of Prospector,” said Project Manager Erik Bjornstrom. “We applied innovative and sustainable practices to every aspect of its construction. That included testing 160 different concrete mixes, eliminating a layer of reinforcement and incorporating more sustainable materials.”

Cal Poly’s Concrete Canoe teams have won three straight national championships.
AROUND CAMPUS

Cal Poly’s campus and the surrounding Central Coast community provide students with an empowering environment to pursue their studies and have a unique California university experience.
IN THE BUSINESS

By Cathy Enns

Orfalea College students reap the benefits of local community and accessible experts

San Luis Obispo County’s coastal settings, friendly communities and pastoral countryside make it a magnet for professionals who can choose to live almost anywhere. After relocating, many of them connect with Cal Poly and contribute to the stature of the Orfalea College and the success of its students.

Take Denise Dudley. After founding SkillPath in the late 1980s and growing it into the world’s largest training seminar company, Dudley decided she could help run the Kansas City-based organization from afar. After a careful search, she moved to San Luis Obispo County where, in her words, “Cal Poly changes the face of what would otherwise be a more isolated community.” Today Dudley mentors as many as 25 students at a time for the Executive Partners Program at the Orfalea College.

Ronda Beaman is another successful professional mentoring Cal Poly business students on real-world skills. The chief creative officer of Peak Learning, a creative strategy and design firm, cementing yet another Cal Poly-Orfalea College connection.

Attributes of Cal Poly, including small class size, also influence how accessible students, professors and community members are to each other. According to Alvarado, mentors really care about their students. “They give so much of their own time,” she said. “They help students not only to graduate and get a job but also to join your profession and make a meaningful contribution.”

Alvarado’s most memorable Learn by Doing experience was serving in the Cal Poly Low Income Taxpayer Clinic (LITC), the brainchild of Cal Poly Professor Eddy Quijano, who served as its founding director. After eight weeks of intensive training, Alvarado and her fellow LITC students tackled formidable challenges, including filing delinquent tax returns and representing clients involved in disputes with the IRS. It was a rare and valuable opportunity to get involved in the emerging field of tax controversy.

Alvarado believes that in a big business school, she might have been overlooked. Whether or not that’s true, she was a standout, tapped by Quijano for a leadership role in the LITC. Upon graduation, she received several job offers and signed on as a staff accountant for a local CPA firm, cementing yet another Cal Poly-Orfalea College connection.

If you’re a budding business student, conventional wisdom might guide you to apply to a University of California business school in one of the state’s large cities. Or you might set your sights on a traditional MBA program at a university near a commercial center like Boston or Chicago. But choosing to attend the Orfalea College of Business at Cal Poly could be one of the most strategic decisions you make.

In the heart of the Central Coast, Orfalea College students find professional resources much like those of a larger area, plus the advantages of a more accessible, involved community. These attributes, combined with the unique characteristics of Cal Poly, offer business students an experience like no other.

San Luis Obispo County’s Student Managed Portfolio Project (SMPP), a 120-year old brokerage and investment banking firm, volunteers time with the Student Managed Portfolio Project (SMPP).

Students working on the SMPP manage investments worth nearly half a million dollars for their client, the Cal Poly Corporation. The goal is to beat the S&P 500 Index by at least 1 percent, a benchmark the SMPP routinely achieves.

Cohl teaches alongside Cyrus Ramezani, SMPP supervisor and chair of Orfalea’s finance area. “Cyrus handles the theoretical,” he said, “and I do the real life.”

Cohl prepares for class just as thoroughly as his students do, as each session opens with a discussion of market activity from the prior day. He loves the work because, he said, “The students keep me sharp. I am amazed at the questions they ask.”

It is this intersection of Cal Poly’s Learn by Doing tradition and the tendency of San Luis Obispo County residents to be active and get involved that really makes a difference for business students at the Orfalea College. So believes Marina Alvarado, who graduated earlier this year with a Master of Science degree in accounting, specializing in taxation.

Members of the business community help drive Learn by Doing in a number of ways, she said. “They seek us out as interns because we’re known to be hard workers with good attitudes.” And local professionals regularly attend speaking events and support career fairs, she said.

Professors typically live close by, and Alvarado notes that many students who initially intend to return to their home cities end up falling in love with San Luis Obispo and going into business here. In this way, Cal Poly and the community become increasingly interconnected. Before and after graduation, students energize the community and vice versa.

An Interconnected Community

The opportunity to bring skills and experience to a setting where hands-on learning is a core value attracts recent transplants and local professionals alike. Phil Cohl, a senior portfolio manager in the San Luis Obis-
Professors Dean Wendt and Chris Kitts have both built student-fueled research programs based on local ecological needs. Their results may pay off at the state or national level.

Anglers have long disagreed with the state and federal governments over how many fish are in the sea. With the state’s establishment of marine protected areas (MPAs) — marine reserves where fishing is not allowed — the possibilities for conflict increased.

Wendt, who also serves as associate dean for the College of Science and Mathematics, saw instead an opportunity for collaboration. When he began monitoring fish populations inside and outside of the Central Coast MPAs, Wendt involved representatives from the national and state governments as well as the local fishing community in his research design.

“I advocate information,” Wendt said. “The data are going to say what the data are going to say. If people participate from the outset, it’s less likely they’ll argue.”

In addition, each party adds its own area of expertise, which leads to better results. Anglers know the local waters, government representatives know the policies, and Cal Poly scientists know experiments and data analysis.

All of this knowledge benefits Cal Poly students, who contribute to every step of the process.

“We want to engage our students in these kinds of real-world projects,” Wendt said. “Fisheries management involves the community. It involves the government. It involves real, serious science — all of those elements.”

Students accompany volunteer anglers on sport fishing boats whose captains helped design the project. The research team tracks information that indi-
“Fisheries management involves the community. It involves the government. It involves real, serious science—all of those elements.”

Carlos Mireles also praised the collaborative nature of the process. “It helped me to work with a wide range of stakeholders,” he said. “It demonstrated what we can do by working together.”

Because the California Department of Fish and Game and the National Oceanic and Atmospheric Administration (NOAA) were both involved in setting up the project, those student-produced data could end up affecting public policy.

Jason Cope, a research fishery biologist with NOAA, is excited about the data. “There isn’t anything like it,” he said. “They’re gathering population abundance information where we just don’t have it. They’re gathering it over time so we can look at trends and how those populations change, which is very valuable.”

The study is in its sixth year. Wendt hopes that future data will be used to evaluate proposals that might affect the health of the ocean. Meanwhile, he remains enthusiastic about the Learn by Doing opportunities for students.

“This project actually embeds the student in society. It shows them how their work is connected to managing public trust and a natural resource.”

Community Benefit

Far upstream, a student team working with Professors Chris Kitts and Michael Black is interested in a much smaller inhabitant of local waters. They’re helping the city of San Luis Obispo identify the source of the E. coli in San Luis Obispo Creek.

In 2004, the Central Coast Regional Water Quality Control Board found high levels of E. coli in the stream, which they attributed to a leaking sewer pipe. But when the pipe was repaired, the E. coli didn’t go away.

“We needed a way to get an idea where the pathogens were coming from,” said Aaron Floyd, the city’s environmental programs manager.

Enter Kitts, one of Cal Poly’s 2012 Distinguished Scholars, who has been working on E. coli “fingerprinting” since 2000, when he was called on to help determine the sources of fecal contamination affecting oyster farming in Morro Bay.

San Luis Obispo, Kitts said, “needed to know who was pooping in the creek.” Prime suspects included pigs, bats and humans.

Different animal feces contain different strains of E. coli. The problem is, there’s relatively little available information about which strain belongs to which animal.

So Kitts’ and Black’s student research team collected and analyzed bat and pig dung and a quagmire over the summer.

Senior biological sciences major Mira Samara worked on the whole research process, from design through analysis. “It’s interesting to come up with everything on our own. If something was wrong, we had to come up with a solution and see if it worked.”

Emily Neal, a graduate student, agreed. “What’s been most interesting has been learning what it takes to truly create a method that is something you can trust, something that is reliable science.”

San Luis Obispo isn’t the only city faced with fecal contamination. Kitts recognized that others could benefit from the students’ work if Cal Poly created a database of E. coli fingerprints.

Along the way, students receive a unique education in “what it takes to actually do research,” Kitts said. “How do you collect data in a functional way? How do you track it and analyze it?”

With a $250,000 Keck Foundation grant in 2010, Kitts and his colleagues purchased the equipment needed for relatively fast and inexpensive E. coli typing. Then they developed a multidisciplinary, in-class collaboration that spans three colleges, six majors, and all four years of a student’s academic career.

Students begin with E. coli collection and fingerprinting in their introductory biology classes and end with senior projects on anything from analyzing the data the freshmen have collected to programming the database itself.

“Students get a different experience at each level,” Kitts said. “They get to know that what they’re doing in class is actually contributing to an on-going, real-life research project that benefits the community.”

Neal said the work’s multidisciplinary nature has helped her develop as a scientist. “More and more it seems biology is moving into incorporating the computer world into our research. So learning how to convey what you need to computer scientists is an important skill.”

Kitts hopes that in the long term, the database will become a statewide resource for tracking water contamination.

It’s already helping San Luis Obispo. “It really is beneficial to all the residents, visitors and the community,” Floyd said. Biological Sciences students collect water samples and scrapings from San Luis Obispo Creek to try to determine the sources of water contamination.
For Mustang Brittany Woodard, leaving the University of Nevada, Reno, three years ago to study and play basketball at Cal Poly meant making the difficult decision to leave her home and her comfort zone further behind.

Instead of two hours from her Sacramento home, Cal Poly would put her five hours away. "I’m a mama’s girl, so moving farther away from my mom was nerve-wracking," she said. "And I was nervous that I wasn’t good enough academically to make it at Cal Poly."

"But I wasn’t happy at UNR. The coaches who recruited me had left after my first year, and I wasn’t falling with the new ones. My GPA was a 2.4, and Coach Faith (Mimnaugh) was trying to bring me to Cal Poly."

Ultimately, it was her mother who helped her make the decision.

"My mother taught me that if I want something I need to go get it," said the fifth-year journalism major. "And Cal Poly taught me how to do that."

Woodard hasn’t looked back. Instead, Cal Poly has forced her to look inward and ahead, continually pushing her out of her comfort zone and toward greater success.

"Since coming here," she said, "I’ve learned to trust myself and my abilities."

When she walked into her first Cal Poly class, she said, she was overwhelmed by her professors’ expectations that she work independently. "They expected me to find information on my own, they put faith in students to be self-directed," she said. "That was new for me. I wasn’t just being spoon-fed lectures and text."

"I’m a visual learner," she said. "Learning how things work in the classroom and then actually doing it myself has been great."

Learn by Doing forces her out of her comfort zone, she said, helping her grow as a person. She cites her Cal Poly TV class as an example.

"Patty Piñero is my favorite professor," Woodard said. "She’s shown me the ropes and has put me in situations that aren’t always comfortable for me. Being on TV, I learned to be more comfortable talking with people and speaking in public. That’s really helped by confidence."

Woodard also attributes her growth to the support of her coaching staff. "I have four new moms," she said. "And Coach Faith watches out for me. She’s concerned about my future."

Assistant Coach Kari Duperon said Woodard has blossomed into a young woman who consistently represents the university with confidence and integrity.

"Brittany has an infectious attitude that brightens up a room," Duperon said. "She exudes positivity and warmth, as well as a relentless spirit that makes everyone around her believe that anything is possible to achieve."

Mimnaugh attributes Woodard’s growth to mental toughness, which has fostered an indomitable spirit, saying, "Brittany has grown as a leader during her time with us."

And with Mimnaugh’s help, Woodard is applying to graduate programs at Cal Poly and in Chicago to pursue an MBA in health or business administration – with a goal of having her own elder homecare business.

Her interest in health administration comes from her work with Life Steps, a local nonprofit foundation for elder care, where she is a personal attendant in the senior homemaker program for adults over 60.

"I’m a visual learner, learning how things work in the classroom and then actually doing it myself has been great."

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Mustang Brittany Woodard Learns Success Often Means Leaving the Comfort Zone

STACIA MOMBURG

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Her supervisor, Mercedes Parker, said Woodard is positive, enthusiastic and always has a smile on her face. "Brittany’s client called me personally to tell me how delightful Brittany is," Parker said. "She manages to juggle her busy life with grace and maturity. She’s bright and positive and is energetic in her work, which is important when working with folks dealing with the physical and emotional aspects of aging."

Woodard’s future is bright, and she’s discovered that no matter where she lands, home is where she makes it.
A Sense of Community

Cal Poly’s 2012 Honored Alumni Serve Beyond Themselves

BY MATT LAZIER | PHOTOGRAPHY BY CHRIS LESCHINSKY

As they were lauded at Homecoming, Cal Poly’s newest group of Honored Alumni struck a repeated chord in their remarks—praising the role the university played in preparing them to succeed not only on a professional level but also as servants to their communities.

“Everyone I know who has graduated from Cal Poly has had life success,” said Joanne Dowty Smith, 2012 honored alum for the Orfalea College of Business. “And I don’t just mean success in their careers. These people are truly happy with who they are. I really attribute that to Cal Poly for creating that sense of community among its graduates.”

Smith and eight other alumni and Cal Poly friends were honored at a reception during Cal Poly’s 2012 Homecoming weekend. The awards they received are the highest honor bestowed upon Cal Poly alumni by the university’s Alumni Association.

“This is a very special night where we get to hear and share wonderful stories about lives well lived, about professions well served, and about accomplishments that were realized through creativity, innovation, entrepreneurship and determination,” Cal Poly President Jeffrey D. Armstrong told the gathering. “And we’ll hear about service beyond one’s self. That’s what we’re about at Cal Poly – creating that sense of service. We help people to become not only resourceful and innovative leaders but also generous citizens who give back to their communities.”

Nanette M. Van Antwerp, honoree for the College of Engineering, spoke (in a pre-taped message) of the enduring power of the Learn by Doing education and said Cal Poly taught her the value of teamwork.

“I always felt a strong sense of camaraderie with my fellow students as we all worked together to reach our goals,” she said. “The Learn by Doing approach was more than just a slogan; it allowed us to get our hands dirty and work on solving real-world problems similar to what we would face in our careers. I believe that this emphasis on developing practical skills was instrumental in forming a strong foundation for a successful career.”

And College of Science and Mathematics honoree James T. Woolaway shared his experience as a business owner who has had the opportunity to hire many Cal Poly grads on his staff.

After a while, he said, he began to realize he could tell, without asking, which employees were Cal Poly alumni. It wasn’t just their competence, their knowledge or their productivity that set them apart.

“It’s something they carry in their heart: a willingness to work hard with others, a drive to help others and see others succeed, and a genuine compassion for their fellow low employees,” Woolaway said. “That’s something that doesn’t come from a textbook or a lecture.”

“It’s something that echoes from the kindness and compassion of the teachers at this university. That’s where the magic is, and it’s why I’m so proud to be from Cal Poly.”

The 2012 Honored Alumni Award Winners:

College of Agriculture, Food & Environmental Sciences

Mike Hall earned his bachelor’s degree in animal science from Cal Poly in 1973 and his master’s in animal science at Kansas State University. He is the senior beef cattle specialist for Cal Poly’s Animal Science Department. Wendy Hall graduated from Cal Poly in 1975 with a degree in animal science and earned her master’s in agriculture and teaching credential from Cal Poly in 1978. She taught Cal Poly’s Beef Cattle Fitting and Showing class and became the advisor for the university’s Western Bonanza Junior Livestock Show. She also owns Cowcoto, a nationally recognized livestock photography business.

College of Architecture & Environmental Design

Jack A. Berndige earned a bachelor’s degree in architecture in 1959. He is the founder and owner of Berndige Manufacturing Co., a San Antonio-based company that manufactures architectural sheet metal products.

Orfalea College of Business

Joanne Dowty Smith earned her bachelor’s degree in business administration in 1982. She is senior vice president of InfFlight Service for Delta Air Lines, leading more than 20,000 flight attendants, supervisory and administrative personnel worldwide.

College of Engineering

Nanette M. Van Antwerp earned her bachelor’s degree in mechanical engineering in 1989, then worked as an engineer designing medical devices at Pacetett. She holds more than a dozen patents for glucose sensor package systems. She is an avid scuba diver and award-winning amateur underwater filmmaker.

College of Liberal Arts

Michela C. O’Connor Abrams studied journalism at Cal Poly and is president of Dwells Media, an award-winning design and lifestyle media company based in San Francisco. She has also held executive positions at IDG, Ziff-Davis and McGraw-Hill.

College of Science & Mathematics

James T. Woolaway earned a bachelor’s degree in physics in 1981. Most recently retiring from ELIR Systems as vice president for IP and Technology, he spent his career in the field of infrared technology and was involved in the design, manufacture and testing of infrared sensors for terrestrial and space-based environments. He is responsible for many circuit-related inventions and numerous patents in the infrared field.

Sandra Gardebring Ogren Leadership Award

Warren A. Sirsbeim is a co-founder and attorney at the San Luis Obispo law firm of Sirsbeim Juhnke McIvor & Stroh, LLP. He is a longtime supporter of Cal Poly, having played an instrumental role in the development of the Performing Arts Center on campus.

CPAA Distinguished Service Award

(Presented to an alumnus or alumna who has demonstrated exceptional service to Cal Poly and the Alumni Association.)

George H. Soares earned his bachelor’s degree in agricultural business from Cal Poly in 1946. He is an attorney and founding partner in the Sacramento law firm of Kahn, Soares & Conway, LLP. He is a longtime supporter of Cal Poly, having played an instrumental role in the development of the Performing Arts Center on campus.

For more on the awards, visit: www.homecoming.calpoly.edu/content/honored-alumni.
Yishai and Kristin Horowitz weren’t locals when they arrived as students at Cal Poly. By the time they graduated, though, the Central Coast was their home.

First college friends, then business partners and now husband and wife, the pair not only grew attached to one another during their time on campus, they also fell in love with San Luis Obispo County’s spectacular environment and small-town culture.

Yishai knew from early on that he wanted to make a career helping others enjoy the environment the way he does.

“When I was a kid,” he said, “I always knew I wanted to start a rock climbing gym. And I had a more vague idea that I might want to start a business in adventure tourism.”

Yishai’s childhood dream is now reality: the SLO Op Bouldering Gym gives Central Coast climbers a place to practice their craft and has received national praise and mention in the bestselling book “The $100 Startup: Reinvent the Way You Make a Living, Do What You Love and Create a New Future.”

And the Horowitzes’ other company, All Out Events, helps Central Coast residents and competitors find adventure in races and other competitions throughout San Luis Obispo County, and beyond.

All Out Events produces about a dozen events annually. These include the Morro Bay Triathlon, obstacle course competitions, mountain bike races in Santa Margarita.
“We want to create events that help people have life-changing memories and experiences,” said Yishai (B.S., Recreation, Parks and Tourism Administration, 2006). “And we want to do it in a way that is sustainable and respectful to this amazing environment we have.”

Yishai was inspired to launch the climbing gym as a nonprofit co-op when, the summer before he transferred to Cal Poly from Cuesta College, he visited New San Luis Obispo and saw a similar operation there. “I thought it would be a perfect fit for San Luis Obispo, which didn’t have very good facilities for climbers.”


Meanwhile, Yishai came to the field of adventure racing through his recreation classes at Cal Poly. After doing work with the Big Blue Adventure Series at Lake Tahoe and the SLO Downtown Critternium, he teamed with Kristin on the venture that would become All Out Events. As event director, Yishai (himself an avid mountain biker, climber and runner) develops race courses that are challenging and aesthetically pleasing and that incorporate their settings. Kristin (also a multisport athlete) tackles the business and finance end of All Out Events.

She brings a varied background — work with local small businesses, experience stage managing with Cal Poly’s Theatre and Dance Department, and a short career teaching English at local colleges. While her academic track and work experience weren’t tied directly to outdoor event production, her entire Cal Poly education nevertheless prepared her well for the All Out Events and the climbing gym, she said. “My professors prepared me to think well and problem solve,” she said. “My classes have contributed to everything I’ve ever done. Cal Poly isn’t about just learning one specific expertise. Learn by Doing teaches you how to think across boundaries. It’s an education for life.”

“Our jobs are interesting because we get to talk to a wide variety of people — college interns one day, lawyers the next day, government officials the next,” Kristin said. “We live in a place that’s small enough that no one is untouched. And everyone seems to love where they live. So there’s excitement about things that add to their experience here.”

And Cal Poly itself is a unique resource for local businesses, Yishai said. “The resources that Cal Poly provides to this area are pretty phenomenal,” he said. “The RPTA Department alone still provides us with great interns, expertise from the professors, and good leads and contacts when we’re preparing an event.”

All Out Events could be on the cusp of major expansion; recently, the Horowitzes have received offers to become the SLO County’s ‘Shelter’ kids from the Central Valley. The mix of people created an interesting dynamic, a fun group.”

“They have the same work ethic as Cal Poly. Get involved, get your hands dirty and get it done.”

Over the years Boone has faced unique challenges. In 2001 he was responsible for the facilities at the White House Operations Center, also known as the “Shelter,” as well as Camp David and President George W. Bush’s ranch in Texas. “The Shelter is where the President’s Cabinet and high-ranking officials meet when the U.S. is under attack,” Boone said. “We were under attack on Sept. 11.”

After the first plane hit, Boone was inundated with requests from Vice President Dick Cheney, National Security Advisor Condoleezza Rice, and various Cabinet members. “I remember thinking that I wish the Americans could see how the leadership operated that day,” he said. “The leadership was measured, methodical, impressive to watch. To be involved in that part of our history was an important part of my career.”

Boone deals with very big things: aircraft carriers, utility systems, construction equipment. “We have exciting but challenging lifestyles,” he said. “But the most important thing in my career has been mentoring and developing people. It is the gratifying experience to have a hand in motivating people to do things they never thought possible in themselves.”

He also traces that skill to Cal Poly. “The university was an amazing place for its diversity of students — big city’ kids from Los Angeles and San Francisco and farm kids from the Central Valley. The mix of people created an interesting dynamic, a fun group.”

After three decades, he is ready to retire. And he is reflective on the importance of his career path. “I came to appreciate a career serving others. There is no nobler a pursuit than to serve others. A lot of what Cal Poly does is teaching students the importance of looking beyond themselves. I hope students consider that when choosing a career.”

For more information on All Out Events, visit the company’s website at www.all-outevents.com. For more on the SLO Co-Op Bouldering Gym, log on to www.slo-opclimbing.org.
Baja Farms was honored at the California Visit ben Abatti Jr. (B.S., Ag Business, 1984) of songs to be released in late spring 2013. be able to live and farm in rural Ventura and management and organizational Ames Research Center and distinguished biopharmaceutical industry before he

Beth Ann Casey (B.A., Recreation Ad­

Erin McNulty Kreitschitz
24/Winter 2012

J. Evans (B.S., Home Eco­

Kathleen J. Evans (B.S., Nutritional Sci­

Janice Joy Baker (B.S., Nutritional Sci­

College of Agriculture, Food and Environmental Sciences

1970s

1980s

Cal Poly Magazine is pleased to introduce a new Class Notes section. Want to share your stories with classmates? Want to know what others are up to? You can now submit your stories online at http://www.calpolynews.calpoly.edu/class_notes_form.html and read the latest submissions in each new edition.

Baja Farms was honored at the California Beet Growers annual meeting for setting a new yield record using a Betsaseed Inc. variety. Baja Farms planted the sugarbeet in a 70-acre field that averaged 78.71 tons per acre, with 15.89 percent sugar content. Overall Abatti’s crop produced 25,014 pounds of sugar per acre, breaking the old record by 500 lbs.

Alexis (White) Negreni (B.S., Ag Science, 2009) and her husband, Wade (B.S., Ag Systems Management, 2010), were mentioned in The New York Times Travel Blog recently for their Temple­ton-based Negreni Sheep Dairy and Artisan Creamery Ice Cream. They operate one of only seven sheep dairies in California. Their ice cream has been a hit among foodies and others want­ing a premium ice cream, according to J. Scott Vernon, professor, Agricultural Education and Communication. See the blurb at http://magazine.blogs.nytimes.com/2012/09/20/the-place-californias-central-coast-part-four/.

Marjie Bartels (Technal Certificate, Fruit Science, 1991) returned home to her family farm in 2000 after the death of her parents, after she had worked several years as a field/lab technician at UCCE in Kern County. Her Valencia orange orchards were certified organic in 2011. After she was diagnosed with a rare autoimmune disease called Wegener’s Granulomatosis in 1999, long-term use of Cytoxan for this disease led to her being diagnosed with leukemia. She had a bone marrow transplant in 2005 (her sister, a perfect match, was her donor). “I am thankful to feel well today and to be able to live and farm in rural Ventura County,” she wrote. “My classes and work experience at Cal Poly gave me a good foundation for my work and my life today.”

College of Architecture &

Environmental Design

1980s

Beverly V. Lashley (B.AK, Architecture, 1987) completed her doctorate in clinical psychology in August 2012.

College of Engineering

1990s

Beverly V. Lashley (B.AK, Architecture, 1987) completed her doctorate in clinical psychology in August 2012.

College of Engineering

1990s

Dale Michael Rydberg (B.S., Mechani­cal Engineering, 1991) works for PXP in Orcutt, Calif., as a facility engineer. Facili­ties include four offshore oil platforms off Vandenber, Air Force Base and Pt. Arguel­lo, a processing plant and oil production field in Lompoc, and a handling facility in Gaviota. Rydberg and his wife, Candi, live in Arroyo Grande. They have four children and one grandson. When not working, they enjoy the kids and grandkids, hiking and riding their Harley.

2000s

Zhong Ren Huang (B.AK, Architecture, 2009) is working as a practicing architect at Handel Architects in Manhattan, N.Y.

College of Engineering

2000s

Dale Michael Rydberg (B.S., Mechani­cal Engineering, 1991) works for PXP in Orcutt, Calif., as a facility engineer. Facilities include four offshore oil platforms off Vandenber, Air Force Base and Pt. Arguel­lo, a processing plant and oil production field in Lompoc, and a handling facility in Gaviota. Rydberg and his wife, Candi, live in Arroyo Grande. They have four children and one grandson. When not working, they enjoy the kids and grandkids, hiking and riding their Harley.

2000s

Theodore J. Garbeff II (B.S., M.S. Aerospace Engineering, 2000) received a 2012 NASA Ames Honor Award, a prestigious award given to research engi­neers at NASA Ames. Garbeff is a wind tunnel test engineer at Moffett Field, Calif. According to a news release, he was recognized for providing outstanding engineering support for a variety of wind tunnel research programs at NASA Ames Research Center and distinguished himself by serving as lead controls engineer for a yearlong test program for the CESTOL advanced aircraft model – acknowledged as one of the most complex university-led wind tunnel tests. He designed, assembled, installed and operated components for seven different control systems, which included Thrust Propulsion Simulator (TPS) units, TPS lubrication oil delivery system, and the model wing’s circulation control system.

College of Liberal Arts

1990s

Laura L. Mariani (B.A., English, 1991) joined Intuit Inc. in May 2012 as senior internal communications specialist for the workplace team.

Elizabeth Aloe (B.S., Journalism, 1995) moved back to San Luis Obispo in Feb­ruary 2012 and published her first novel, “The Reunion.” She calls it “a nostalg­i­c walk down memory lane for those who went to Cal Poly and lived in San Francisco and Los Angeles.” The book is available from Amazon.com in digital and paperback versions.

Orfalea College of Business

1990s


2000s

erin (McNulty) Kreitschitz (B.S., Social Sciences, 2005) celebrated her fourth wedding anniversary with her husband, Nicholas (B.S., Aerospace Engineering, 2000). The couple will celebrate being together for 10 years in November, she wrote, “all thanks to Cal Poly! We miss the days of hanging out in San Luis Obispo.”

College of Science and Mathematics

1990s

Edward Schwartz (B.S., Biochemistry, 1991) spent more than 19 years in the biopharmaceutical industry before he and his wife, Stephanie (Nutritional Science, 1986), became co-owners of Labyrinth Winery with master winemaker Rick Hill. The winery, in Santa Maria, Calif., will open its first tasting room in downtown Ventura in winter 2013. “We are excited by this career change,” he wrote, “and are looking forward to seeing you in the tasting room.”

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“If you can think it, you can make it,” said Katie Ruhm, a junior mechanical engineering major talking about the Student Fabrication Lab called the Mustang ’60 on the ground floor of the Bonderson Projects Center.

Part of the Mechanical Engineering Department, the shop is a creative bastion for hands-on projects, open to anyone on campus including faculty, staff and students from any major.

If you think of yourself as a tinkerer, as one student put it, the machines and equipment will make your eyes light up. But even more impressive are the opportunities the shop affords students to discover new interests, unleash their creative potential and develop as leaders.

open door Policy
Ruhm originally came to Cal Poly as an education major. Both of her parents are teachers, and everyone assumed she would teach kindergarten. But during her first quarter at Cal Poly, friends got her involved constructing the Cal Poly Rose Parade float. She said, “I thought welding was the coolest thing I’d ever done.” From that experience, she caught the bug to build and told her parents she wanted to change majors to mechanical engineering. She mastered the calculus, physics and chemistry required and transferred majors by the end of her freshman year. Now she’s a shop technician, sponsored by Solar Turbines to teach others how to use the equipment.

“I love the hands-on part of it,” she said, and the comprehensive perspective she gains by making things she envisions. Because of her firsthand experience, she understands the trade-offs in the manufacturing process. “Just because a computer can make it doesn’t mean a machine can do it or do it efficiently,” she said. “There are costs to every design decision.”

Specifications
The Mustang ’60 shop has two main rooms. One is outfitted for wood with a table saw, compound sliding miter saw, routers, planers, sanders and a band saw. The other is for metal, with lathes, mills, drill presses, welding equipment and three state-of-the-art CNC machines (computer-controlled machining devices).

While many of the projects are sponsored by industry and cloaked by non-disclosure agreements, the projects they can talk about include an electronically actuated prosthetic hand that was fabricated and assembled by students on the QL+ team, and a closed-loop coolant simulator that PG&E uses at Diablo Canyon power plant to train nuclear engineers.

Graduates have gone on to companies including Apple, General Atomics, and SpaceX (PayPal founder Elon Musk’s start-up now contracted by NASA to deliver payload to the International Space Station).

Forging a New Future
The Mustang ’60 shop was just a big empty space before John Nielsen (B.S., Mechanical Engineering, 1964) and his wife, Connie, made a gift that provided funds to equip the shop. Senior technician George Leone tapped former student Eric Pulse (B.S., Mechanical Engineering, 2005) to outfit and manage the facility.

The Nielsens also funded an endowment that will pay the manager’s salary into perpetuity. “The Nielsens basically changed everything for us,” said Leone. “We realized if we could have a sponsored staff position, we could have sponsored student tech positions, too. For $5,000, someone can pay a student’s employment for the year.”

Solar Turbines took it a step further and set up an en-
Mechanical Engineering student Katie Ruhm at work in the Mustang '60 Lab.

Building New Leaders

Robby Nielsen (no relation) was a mechanical engineering major before his experiences in the shop helped him find a fit in a more systems- or process-oriented major: industrial and manufacturing engineering. He worked as a shop technician for about a year before asking if he could redesign the shop for greater efficiency and presented his plan to management. Leone said he considered it for about a second before agreeing. “If they’re up for the challenge, we’re willing to support them in any way we can,” he said, explaining that those opportunities foster initiative and entrepreneurialism. “We want them to be adaptable and have exposure to different things so when they are out in the workforce, they have a bigger toolbox in their brain.”

Robby Nielsen received his Bronze Star.

Russell Fenton receives his Bronze Star.

Col. Kelly Fisher (B.S., Home Economics, 1989, M.S., Architecture, 1996), was named the first female commander of the California National Guard’s 49th Military Police Brigade in September, the Fairfield Daily Republic reported. The brigade serves as the headquarters for FEMA Region’s IX Homeland Response Force and represents the Western U.S. and territories ready to support civil authorities in chemical, biological, radiological and nuclear events. Fisher served in ROTC at Cal Poly and was a member of the ASI Board of Directors in 1987-88.

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In many ways, life began for me at Cal Poly. The world opened up for me."

—George H. Soares, (B.S., Agricultural Business, 1966)
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Parents, please note: If your son or daughter is no longer at this address, please send his or her current address to alumni-info@calpoly.edu.