WHITE GOLD
THE DAIRY SCIENCE PROGRAM GIVES STUDENTS REAL WORLD EXPERIENCE

ALSO INSIDE >>
> ENVIRONMENTAL BIOTECHNOLOGY INSTITUTE SOLVES A BEACH BACTERIA MYSTERY
> ALUM ROBERT C. TAPELLA’S ROAD TO THE GOVERNMENT PRINTING OFFICE
FEATURES
10 CLEANSING THE WAVES
Science students examine DNA
to solve a bacteria problem in Pismo Beach
12 PUTTING STOCK IN OUR STUDENTS
Finance seniors invest Cal Poly Corporation
money in the stock market
13 WHERE WE LEARN HOW TO LEARN
The 2010 Honored Alumni Talk About
the Core Lessons of a Cal Poly Education
14 ALUMNI Q&A: ARVIN DAEZADEH
From Dubai to Afghanistan: Building and
Rebuilding the World
15 A LIFETIME OF LEARN BY DOING
GRC alum Robert C. Tapella talks about his road
to the Government Printing Office

DEPARTMENTS
04 EDITOR’S NOTE
04 UNIVERSITY NEWS
19 PHILANTHROPY
Making Your Dollars Make Sense
22 HOT SHOTS
Cal Poly Students Win Red Bull Flugtag

COVER STORY
08 WHITE GOLD
Cal Poly’s Dairy Science Program Provides
Real World Experiences and Solutions

CONTENTS
DEAR FRIENDS:

Learn-by-doing means getting a taste of how the real world works – taking what is learned from books and lectures and applying it to real-life situations.

It’s the essence of the Cal Poly education. It’s why our graduates leave campus ready to contribute their first day on the job – because what they find in the workplace, they’ve already experienced in the classrooms, dairies, workshops, studios, vineyards and other living laboratories at Cal Poly.

In this issue, our six recently-named Honored Alumni tell you how this aspect of the Cal Poly education led to their professional successes.

Elsewhere, graduate Arvin Dastazadeh explains how it led him first to Dubai to work on the world’s tallest building and then to Afghanistan to build structures for the troops. And Robert C. Tapella discusses how at a Congressional hearing him first to Dubai to work on the world’s tallest building and then to Afghanistan to build structures for the troops. And Robert C. Tapella discusses how at a Congressional hearing

Making a difference, though, isn’t only for our graduates. Our students, as part of their studies, have ample opportunity to make their mark on the world long before they graduate.

In this issue, we introduce you to an impressive collection of students making a difference:

In this issue, our six recently-named Honored Alumni tell you how this aspect of the Cal Poly education led to their professional successes.

Matt Lazier, Editor (B.S., Journalism, 1997)

P.S.: For more content and multimedia features on impressive activities underway at Cal Poly, be sure to visit the online version of Cal Poly Magazine at www.magazine.calpoly.edu.

— Matt Lazier, Editor (B.S., Journalism, 1997)

TOP GUNS AGAIN:

AEROSPACE STUDENTS WIN AIAA DESIGN COMPETITION

FOR THE EIGHTH TIME in the past nine years, Cal Poly aerospace seniors soared above the competitors at the national Undergraduate Team Aircraft Design competition, taking both first and second places at the contest sponsored by the American Institute of Aeronautics and Astronautics Foundation (AIAA).

Designing “Alternate Fuels and Environmentally Friendly Aircraft Systems,” 34 teams from 12 universities competed in the 2010 contest. Cal Poly’s “Much Better Planes Introduces the Beardsactyl®” won the $2,500 first place award, while Cal Poly’s “GFX-50” won the $1,500 award for second place. USC’s “Eiger” team earned $1,000 for third place.

Led by faculty advisor Bruce R. Wright, Cal Poly’s first-place team Beardsactyl included Dominic Surans, Jake Armstrong, Chris Choi, Jake Gaunt, David Guerrero, Ben Naravage, Dan Shehan, and Kyle Thoma. Cal Poly’s GFX-50 team, also led by Wright, included Kasey Johnsen, Simo Alberti, Brian Borra, Erin Hambrick, Kevin Hoogam, Peter Huang and Casey Regan.

MUSTANGS TO JOIN BIG SKY FOOTBALL CONFERENCE

CAL POLY WILL JOIN the Big Sky Conference for football beginning with the 2012 season, officials for the university and conference announced in September. UC Davis will also join the expanded Big Sky Conference, which is a member of the Football Championship Subdivision (FCS) for football.

The Mustangs will maintain membership in the Big West Conference for the majority of their other intercollegiate sports.

“The geography of the Big Sky Conference makes perfect sense for Cal Poly. It gives us a consistently competitive schedule and a great opportunity to grow long-term, stable rivalries with well-respected teams,” Cal Poly Interim President Robert Glidden said.

ARCHITECT TRACE DE HAMN is Cal Poly’s new director of Alumni Relations. She joined the alumni office Oct. 1, after serving as the assistant director of advancement for Cal Poly’s College of Architecture and Environmental Design. In her new job, de Hamn will lead and direct the work of the Alumni Relations Office and university events planning staff. She will also serve as executive director of the Cal Poly Alumni Association.

“Tracee’s blend of talents should prove invaluable in our efforts to expand engagement of our alumni and to bring a more integrated, university-wide approach to all alumni relations and fundraising efforts,” said Chip Visici, associate vice president for University Advancement.

She takes the reins from outgoing director Kim Gannon, who was appointed as the Alumni Relations director of Texas State University, San Marcos, in September.

BUSINESS ENGINEERING GRADS ARE BEST HIRES IN THE NATION, WALL ST. JOURNAL REPORTS

CAL POLY IS AMONG THE TOP UNIVERSITIES in the nation at producing the best graduates to hire in business and engineering, according to recruiters polled by the Wall Street Journal in part of a special report.

Cal Poly business grads are on par with Stanford, Harvard, Penn State and UC Berkeley, while engineering grads top those of UCLA, Rensselaer, Carnegie Mellon and more.

The rankings are part of a Wall Street Journal report on ‘Paths to Professions’ released earlier this fall.

In the WSJ report’s ‘Rankings by Major’ breakout, Cal Poly was named No. 22 of the ‘Top 25’ private and public universities for producing business/economics grads in the nation. Cal Poly was named No. 18 of the ‘Top 25’ best private and public engineering grad producers in the nation.

ARCHITECT AS DIRECTOR OF ALUMNI RELATIONS

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FRED SWEENEY TO LEAD ALUMNI ASSOCIATION

FRED SWEENEY, a CAL POLY ARCHITECTURE graduate and principal with PMSM Architects in Santa Barbara, is the new president of the 14,000-member Cal Poly Alumni Association, the voice of more than 144,000 living university alumni. Sweeney received his bachelor's degree in architecture from Cal Poly in 1974. He is currently a member of the Deans Leadership Council for the College of Architecture and Environmental Design. He led the $1.5 million fundraising campaign for the George Haslam Endowed Chair in the college.

Sweeney has more than 20 years experience designing higher education projects and is a member of the Santa Barbara Hispanic Achievement Council and the Santa Barbara Art Museum’s Collectors Council. He is the founding president of the Architectural Foundation of Santa Barbara and has served as past president of the Santa Barbara Chapter AIA and past director of the California Council AIA.

He will serve as the CPAA president until June 2012.

ATHLETIC DIRECTOR ALISON CONE TO RETIRE

ALISON CONE, CAL POLY’S DIRECTOR of Athletics since 2004, announced that she will retire in December after 16 years at Cal Poly.

“This is the right time in our execution of our strategic plan for me to move on,” Cone said. “We have reached a stable position within the NCAA at the Division I level, we have great coaches in place, and they have the right focus on developing our student-athletes for success on the field, in the classroom and in their professional lives.

“With football’s coming entrance into the Big Sky Conference, we will have all of our teams competing at appropriate conferences in order to give our student-athletes the best possible competitive opportunities,” said Cone, who came to Cal Poly from Minnesota, where she had worked as vice president for institutional relations for the University of Minnesota. Before her career in higher education, Ogren served on the Minnesota Supreme Court from 1991 to 1998 and on a state appeals court from 1989 to 1991. Her public service in the state also included service as a commissioner with the Minnesota Department of Human Services, director of the EPA’s enforcement division, and commissioner with the state’s Pollution Control Agency. Ogren personified the values and accomplishments the Alumni Association seeks to honor and celebrate. Throughout her life as an accomplished jurist, dedicated public servant and leader of philanthropic endeavors, Ogren blended high ideals with a pragmatic focus on achieving results.

NASA SIGNS ON WITH CAL POLY’S PICOSATELLITE DEPLOYER

IN LATE SEPTEMBER, NASA announced a five-year contract award to Cal Poly to provide a broad range of Picosatellite Orbital Deployer (P-POD) services for NASA’s Cubesat program. The contract’s maximum cumulative potential value is $5 million.

THE CONTRACT ENSURES OUT-OF-THE-WORLD, HANDS-ON OPPORTUNITIES FOR CAL POLY STUDENTS, WHO WILL BE INVOLVED IN ACTUAL LAUNCH CAMPAIGNS

The contract ensures out-of-this-world, hands-on opportunities for Cal Poly students, who will be involved in actual launch campaigns working with launch providers, the NASA launch team and all universities developing Cubesats.

Cal Poly and Stanford University created the Cubesat Standard to provide developers with guidelines to interface with the P-POD, which is a tubular, spring loaded mechanism easily integrated into any launch vehicle. Cubesats are research spacecrafts measuring 10 cm square with a mass of up to 1 kg.

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CAL POLY ALUMNI ASSOCIATION ESTABLISHES AWARD IN HONOR OF SANDRA GARDEBRING OGREN

THE CAL POLY ALUMNI ASSOCIATION Leadership Award is being established in memory of its inaugural recipient Sandra (Sander) Gardebrin Ogren, who memorably served the university as Vice President, Advancement.

Ogren came to Cal Poly from Minnesota, where she had worked as vice president for institutional relations for the University of Minnesota. Before her career in higher education, Ogren served on the Minnesota Supreme Court from 1991 to 1998 and on a state appeals court from 1989 to 1991. Her public service in the state also included service as a commissioner with the Minnesota Department of Human Services, director of the EPA’s enforcement division, and commissioner with the state’s Pollution Control Agency. Ogren personified the values and accomplishments the Alumni Association seeks to honor and celebrate. Throughout her life as an accomplished jurist, dedicated public servant and leader of philanthropic endeavors, Ogren blended high ideals with a pragmatic focus on achieving results.

ENGINEERING DONOR ENDS PROJECT-BASED LEARNING

PAUL R. BONDERSON, JR., is such a staunch supporter of Cal Poly’s learn-by-doing educational focus that he donated the money for the $8 million Bonderson Projects Center dedicated solely to student projects. Now, the 1975 electrical engineering grad has given Cal Poly an additional $550,000 to generate ongoing funds for those projects.

The gift establishes an endowment that will provide salary support for technicians who staff the Bonderson Projects Center, as well as grants for equipment and materials, faculty expenses and team travel to conferences and competitions such as the National Concrete Canoe Competition, the Shell Eco-Marathon, the Formula Hybrid Competition and the Solar Decathlon. Cal Poly teams consistently perform well in these contests. The Cal Poly Concrete Canoe team, for example, won a national championship in June.

“The belief of students get so much out of these national contests,” Bonderson said. “I love coming back to campus and seeing all the great student projects, especially the cutting-edge vehicles,” Bonderson said. “And I’m especially interested in supporting club projects.”

FIND ALUMNI IN POLYLINK, AND MAKE SURE THEY CAN FIND YOU

THERE ARE MORE THAN 66,000 ALUMNI in Polylink (www.calspolylink.com). Cal Poly’s free, private, online alumni directory. If you’re a Cal Poly alumnus, current senior or faculty or staff member, you can find and e-mail 66,000 alums there. You can also find additional career, contact, and personal information—including photos—from nearly 17,000 alumni who have expanded their directory profile.

Help them find you by expanding your profile. In the Polylink alumni directory, once you’ve set up your profile, you can use the “Locate a Classmate” database in the directory to find an alum or a whole major or class year. You can also browse the directory’s interactive Google map (www.calspolylink.com/alumnimap) to find alumni worldwide.

If you have never logged in to the Polylink alumni directory, you can find your personalized first login code next to your name on this Cal Poly Magazine label. Take it to www.calpolylink.com, follow the prompts and log in today.

For illustrated directions on the three-step, secure first login process, visit: www.calspolylink.com/1stlogin.

For additional University News items, photos and links, check out the online edition of Cal Poly Magazine at www.magent.calpoly.edu.
CAL POLY’S DAIRY SCIENCE PROGRAM PROVIDES REAL WORLD EXPERIENCES AND SOLUTIONS

BY STACIA MOMBURG

CAL POLY’S “GOT MILK” AND A LOT OF IT – about half a million gallons a year, in fact, from a herd of 160 Jersey and Holstein cows.

Half a million gallons of milk that, for Cal Poly Dairy Science students, equal real-world experience in fields as diverse as animal husbandry, milk production, dairy processing, research and food development.

Half a million gallons that, for students such as Maci DePaoli, can add up to years of professional experience already under their belts when they enter the workforce. DePaoli, a 2009 graduate of the Dairy Sciences program, now works for Dryer’s Grand Ice Cream, the nation’s largest ice cream producer. She was initially hired into the company’s nine-month training program to learn about its various production departments. And when she finished the program, Dryer’s moved her to its quality control department.

DePaoli credits her Cal Poly education to her quick ascent. “My internships, course work and hands-on learning I received at Cal Poly provided me with five years of industry work experience,” she said. “I came to Dryer’s well above entry level.”

Her Cal Poly coursework is still providing her with a foundation for success, she said. “I reviewed notes from my Principles of Food Safety and Hazard Analysis class, which covered Hazard Analysis and Critical Control Point, and put myself ahead of the curve when Dryer’s continued work on the program.”

And through the Cal Poly Dairy’s food production program, students are learning how to create dairy products from ice cream to eggnog and also how to package, market and sell them. “We’ve seen revenue increase by 80 percent over the last four years,” he said. “As we develop more products and increase our outreach to industry partners, I can see us continuing to grow exponentially.”

Students package Cal Poly cheeses to sell at Campus Market and at Spencer’s Fresh Markets in the San Luis Obispo area. Holiday cheese packs are sold online – and sell out every year. In addition, students package ice cream year round and eggnog for the holidays, and they work with third-party cheese producers and ice cream makers to package Cal Poly products under those labels.

Spencer’s owner John Spencer loves selling local products to local families and calls Cal Poly cheese “second to none.”

“Last year, we couldn’t keep the holiday eggnog on the shelves,” Spencer said. “Bruce, Jerry and the students are sending the message that good things are going on at the Cal Poly Dairy.”

Third-year Dairy Science major David Valenzuela is capitalizing on the program’s success. He makes cheese in the creamery daily and has helped with ice cream and eggnog production.

“Students are figuring out how to extend shelf life, defining milk quality for today’s dairy industry, improving the quality of low-fat cheeses, and more. (To learn more about dairy research at Cal Poly, visit http://www.calpoly.edu/~dptic/centerprojects.html.)

Sometimes, industry professionals bring problems to Cal Poly. In 2007, creamery faculty and students helped Pinkberry, a southern California Yogurt chain, reformulate their yogurt base so it could be produced in larger quantities, retain its taste and comply with California production laws.

“We worked with other consultants and universities previously with little success,” Pinkberry President Shelly Hwang wrote in a thank you letter to Dairy Science Professor Phil Tong. “The advice you gave and the test trials you performed enabled us to continue with our development of the Pinkberry business and are positioning us for larger-scale production.”

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“The Dairy Science program is providing me with a solid foundation and job experience that will ultimately help me do more for my world,” said Valenzuela, who wants to help improve dairy industries around the world in his career.

Valenzuela said he’s been well prepared since his first day at Cal Poly. “My first day in class, the professor lectured for 30 minutes, and then we went out to the dairy to apply what we had just learned,” he said. “I knew about learn by doing at Cal Poly, but the speed of it still just blew me away.”

CAL POLY MAGAZINE
Cleansing the Waves

Cal Poly Science Students Examine DNA to Solve a Bacteria Problem in Pismo Beach

By Mary McNally

Since San Luis Obispo County health officials began testing coastal water for contamination in 2001, an alarming number of safety advisories have been issued warning people of high levels of potentially dangerous bacteria at Pismo Beach.

Pigeons were suspected to be the culprit, but officials couldn’t develop a strategy to minimize contamination until they determined the source.

That’s when they turned to Cal Poly’s Environmental Biotechnology Institute (EBI) to solve the mystery — giving dozens of students and a handful of faculty members a chance to make a real-world difference.

The resulting study spanned three years. In the end, Cal Poly confirmed officials’ first inclination about the source of the pollution.

“The preponderance of data indicates the pier is the physical origin of contamination and pigeons have been the main source,” said Christopher Kitts, study supervisor and Biology Department chair.

Along the way, the hands-on experience conducting lab tests and statistical analysis in a multi-year study transformed participating students into accomplished field researchers and skilled lab technicians.

Intriguing Results

Volunteers, students and Cal Poly’s Center for Coastal Marine Science were enlisted to collect samples from various sites along the beach, in the water and at the South County wastewater outlet. Samples were taken in hourly, daily and weekly intervals, while tides, wave direction and current were monitored to detect patterns.

Sampling done during a single summer indicated 43 out of 60 days had at least one site that exceeded safe bacterial levels. During incoming tides, at least one site per hour exceeded the safety level 96 percent of the time.

Two primary testing protocols were conducted, both of which challenged the students to perform complex lab studies using state-of-the art equipment.

To determine the source species, the students extracted DNA from E. coli in Pismo Beach sea water samples and matched it to strains from a national library of E. coli DNA fingerprints. “E. coli is a relatively large component of human intestinal flora, and that makes it a good indicator of fecal contamination,” said Kitts.

They also extracted DNA from bacteria in fecal samples and matched that to DNA from bacteria known to inhabit the intestines of species including humans, dogs, cows and horses.

The research produced some intriguing results. Evidence of dog feces in the water was more common on the weekend. And human deposits were more common in the middle of the week and dramatically higher around the July Fourth holiday.

However, neither dogs nor people contributed enough contamination to trigger safety warnings.

Instead, birds were the only source of feces consistent with all the data collected. And pigeons were by far the most common birds on and around the pier.

Student Success

By virtue of its work in the program, the EBI has received a grant to develop a faster, cheaper library of E. coli DNA fingerprints. The project has already been integrated into course curricula, so students have the opportunity to develop what Kitts hopes will be a new resource for California watershed management.

It’s just one example of how students benefited from the opportunity.

“With any lab technique, there are always little things that make a difference,” said fifth-year microbiology student James Chen. “Like when you’re doing a DNA extraction, how do you know you’re getting the optimal amount of DNA? Those are the things you learn with hands-on experience.”

Monica Reynoso (B.S., Microbiology, 2009) ran the tests and taught other students to do the procedures. “She understood why we needed the level of precision we did and how to get students to follow the protocols exactly,” said Kitts. “If you’re a clinical laboratory technician, precision is important. Your work affects someone else’s life.”

“I really enjoyed the detective work involved in research,” Reynoso said. “It helped me realize what I wanted my career to look like.”

Reynoso now works as a DNA sequencing lab technician at Elim Biopharmaceuticals. “I work with graduates from other universities,” she said, “and that makes me realize the value of my learn-by-doing education. Many of my coworkers had never seen a sequencer before they started working here. My experience at EBI gave me an advantage in the real world.”
WHAT WOULD YOU SAY if you were told a 22-year-old college student would manage your retirement account or your investment portfolio? If you weren’t that enthusiastic, you would be understimating a particular class of Cal Poly undergrads. A select group of senior finance students in the Orfalea College of Business has been managing every investment decision for the Student Managed Portfolio Project (SMPP) since its inception in 1992.

Initiated by now-retired professor John Lindvall, the SMPP was initially funded with $200,000 from the Cal Poly Corporation to give advanced finance students hands-on training as fund managers and investment professionals. The students have proven to have a keen understanding of the market: The SMPP has outperformed its benchmark, the largest financial firms, the health care debate, high unemployment, implementation of the federal stimulus package, and a surge in energy and commodity prices.

REAL RISK, REAL RETURNS

Each year, the new crop of student fund managers assesses the legacy fund from the previous year’s group. Fall quarter is dedicated to conducting due diligence while developing a strategy for the coming year. Before assuming responsibility for the real-world portfolio, they work the portfolio on paper: “The paper portfolio shows spectacular success and great failure,” Ramezani said. But failure, he added, is one of the great teachers.

“The risk has to be at the forefront of your mind,” said 2009-10 SMPP student David Duduk. “The prior two years showed just how fast you can lose a large amount of money if you focus solely on maximizing returns.”

Through the course of the project, SMPP students learn to utilize the same techniques professionals use, including analyst reports and in-person interviews. They also master electronic information resources including Morningstar Direct, MergentOnline, Reuters and Bloomberg. By the end of the course, they can dissect the fair value of stocks based on Monte Carlo simulations, Sharpe ratios, and regression and dividend discount models.

“The success of the program isn’t just reflected in the returns the portfolio generates,” Ramezani said. “It’s the confidence and experience the students gain from the experience.”

REAL WORLD

The class is patterned after a real-world relationship between a client (the corporation) and its adviser (the SMPP students). The students design an investment strategy and write a prospectus for the fund based on the client’s investment horizon, portfolio objectives and risk tolerance. For this client, the goal was to create a well-balanced, diversified portfolio to maximize growth and limit risk. To accomplish this, the class developed a strategy weighted heavily toward Exchange Traded Funds. Class discussions, often led by visiting industry professionals such as long-term fund managers and college namesake and Kinkel’s founder Paul Orfalea, include the effect of macroeconomic factors, such as news in the world at large, and how that can impact the market.

The last two years have been a once-in-a-century opportunity to see the world change in real time in a dizzying manner,” said SMPP supervisor and finance area chairman Cyrus Ramezani. The students managed the fund successfully while navigating the sub-prime credit crisis, failure of some of the nation’s largest financial firms, the health care debate, high unemployment, implementation of the federal stimulus package, and a surge in energy and commodity prices.

This is an example of Cal Poly’s commitment to hands-on education,” said Ron Weaver, investment adviser for the Cal Poly Corporation. “Trading on paper is one thing. But when the risks are real, the pressure is different and the learning is tangible.”

The students have proven to have a keen understanding of the market: The SMPP has outperformed its benchmark, the largest financial firms, the health care debate, high unemployment, implementation of the federal stimulus package, and a surge in energy and commodity prices.

WHERE WE LEARN

The 2010 Honored Alumni Share the Core Lessons of a Cal Poly Education

College of Liberal Arts

Hiroshi T. Anai (B.S., Applied Art and Design, 1992)

“The biggest lesson I learned here is that you get out of life what you put into it,” said John Mendenhall, a finance major who joined a team of a handful of teachers who had a huge impact on me. I remember being a senior and being terrified at the idea of competing for a job during a recession. But John told me, “There’s always going to be someone with more resources, more connections and even more talent. The ones who succeed are the ones who are willing to learn, who have no ego and who are willing to work really hard. So I did. And I always left myself open to learn something new. And I always tried to stay humble.”

College of Science and Mathematics

John T. McDavitt (B.S., Chemistry, 1982)

“I became hooked on the learn-by-doing experience through my first two research projects, and there has been no looking back. At Cal Poly, I not only learned basic science and engineering skills, but I also secured my keen interest in research activities and applications that have a societal importance. For the past two decades I have served as an educator at major universities, mentoring young graduate and undergraduate students with the hope of passing on my keen interest in education and passion for problem solving for issues of societal importance – stimulated by the same learn-by-doing methods.”

Orfalea College of Business

George A. Famalet (B.S., Accounting, 1986)

Cal Poly gave me the skills and confidence to take on problems in areas even when I lacked experience. Each country had a different procedure and approach on audits. I needed to quickly get up to speed on the issues, facts and laws and meet each country’s expectations – stimulated by the same learn-by-doing methods. I became hooked on the learn-by-doing experience through my first two research projects, and there has been no looking back. At Cal Poly, I not only learned basic science and engineering skills, but I also secured my keen interest in research activities and applications that have a societal importance. For the past two decades I have served as an educator at major universities, mentoring young graduate and undergraduate students with the hope of passing on my keen interest in education and passion for problem solving for issues of societal importance – stimulated by the same learn-by-doing methods.”

Honored Alumni for 2010, left to right:

With President Emeritus Walt L. Brusa, President Emeritus Jim Grant, Jacki Aza, George Famalet, Ken Volk, John McDavitt, Ron Smith. Photo by Grant Brown Humphrey
A R V I N D A E I Z A D E H (B.S., Construction Management, 2004) grew up in Los Angeles, but right now you'll find him half a world away – splitting time between his apartment in Dubai and his new job in Kabul.

Daeizadeh spent 2007-09 on the team overseeing the construction of the $20 billion Burj Khalifa (originally Burj Dubai) skyscraper and surrounding master-planned area in the United Arab Emirates. When it opened in January, Burj Khalifa became the world's tallest structure. At 160 stories, it's 2,716 feet high – taller than two Empire State buildings.

Daeizadeh is now working for ACCL International (Afghan-yar Construction Company Limited) and has been on the job since April. The civilian company is owned by Afghans and based in Kabul and includes a team of top American project managers.

Daeizadeh stopped by Cal Poly while visiting to family and friends in California in September and took time to answer questions for Cal Poly Magazine.

Q: WHAT ARE YOU BUILDING IN AFGHANISTAN?
A: We build projects from small warehouses and perimeter walls to full-size camps for local and expatriate police and soldiers.

Q: WHAT ATTRACTED YOU TO THE JOB?
A: My current boss had worked with me on the Burj Khalifa project. I was drawn to the opportunity, because I knew him and respected him and because the company was created with the purpose of helping the Afghans. The job lets me serve the international forces, who are our clients, and help the locals by giving them jobs and training, buying local products and helping them build a successful Afghan company.

Q: IS IT DANGEROUS THERE?
A: It is, but Kabul is one of the safer places in Afghanistan. Our company employs its own security team, which we train; they are local Afghans. Whenever any of us Westerners are traveling, we are accompanied by former U.S. military or with one of our Afghan armed guards.

Q: HOW DO YOU WORK AT PROJECTS ALL OVER THE COUNTRY OR JUST ONE REGION?
A: Our main office is in Kabul, and I spend most of my time there. But I had a three-week project in Herat, near the border of Iran. I also have an assignment that will require me to travel to half a dozen camps on the borders of Afghanistan.

Q: WHICH ACCOMPLISHMENT HAS BEEN THE MOST FUN IN YOUR CAREER?
A: Entering the international job market; there is so much opportunity. American expertise is in high demand internationally, but most Americans are not comfortable with international work. I’ve been able to work on larger and more interesting projects while traveling and seeing more of the world.

Q: WHAT’S BEEN THE TOUGHEST THING SO FAR?
A: Staying abreast of the industry and the rapid advancements in construction on an international scale.

Q: WHAT PROMPTED YOU TO MAJOR IN CONSTRUCTION MANAGEMENT?
A: I kind of stumbled into it. I had to choose a major when I applied to Cal Poly, since there was no “undecided” option. My stepfather was in construction in L.A., and I liked the times I worked with him as a kid. Once I got started in the program and worked alongside architecture, city and regional planning, landscape architecture and architecture engineering majors, I really started to like it.

Q: WHY DID YOU PICK CAL POLY AS AN UNDERGRAD?
A: It is an amazing school. Poly is very well recognized in my industry, and learn-by-doing was very much in place in every one of my major courses. Cal Poly fulfilled my ‘checklist’ – a top school, out of my hometown, with no overcrowded classes, and something I could afford. I attribute a lot of my successes to Cal Poly. The learn-by-doing education and the real-world experience helped shape me to be ready for a career and life in general.

Q: WHAT’S YOUR ADVICE FOR CAL POLY STUDENTS (OR ALUMNI) WHO WANT TO GET INTO CONSTRUCTION MANAGEMENT?
A: Anyone interested in building should look into the area of sustainable construction and building. The construction industry has a significant role to play in sustainability, and I see it being a big part of how we build in the future rather than just being a trend today.

Q: WHEN YOU’RE NOT WORKING HARD IN EXOTIC PLACES, WHAT DO YOU LIKE TO DO?
A: I really like motorsports and have shipped my motorcycle out from L.A. to Dubai. I take it for a ride with the local Emirati bike crew whenever I get a chance – as long as it’s not during the summer!
fit for me, and the reputation of the Graphic Communication Department made my decision to attend that much easier. “Tapella found his way to Cal Poly via a junior high calligraphy class and an innate sense of entrepreneurship. “I was required to take calligraphy twice a week, and I realized I was good at it,” he said.

At 13, the Sunnyvale native parlayed his talent into a job at New Scribes, a San Jose menu design shop. From there, he began to build his business. “When New Scribes closed, I took some of their customer base and opened Tapellagraphics,” he said.

By 1985, still running a successful print business, he became a full-time field representative in Congressman Bill Thomas’ Pismo Beach office, where he worked until 1993.

In 1996, Thomas asked Tapella to move to Washington, D.C., to work on the Committee for House Oversight. And in 1998 the Clerk of the House invited him to help develop and rework the infrastructure behind the legislative process.

“I was involved in retooling the electronic voting system, standing the legislative process and navigating the political arena,” Tapella said.

In 2007, Janus retired – and asked Tapella to continue what their team had begun, digitizing and streamlining the processes for printing federal documents. Tapella threw his hat in the ring to become the next public printer.

Three years later, as he prepares to retire, Tapella said he’s grateful his alma mater provided him with a solid foundation for his career.

“Cal Poly taught me how to work well with others and how to be involved – qualities that helped me tackle real-world challenges throughout my career.”

For additional photos and links to more information on Public Printer and Cal Poly alum Robert C. Tapella, check out the online edition of Cal Poly Magazine at www.magazine.calpoly.edu.
It wasn’t an auspicious start, being the manager of the team, not when he wanted to play. But Ryan Darling (B.S., Business Administration, 2010) earned a spot on the Mustangs basketball team as a walk-on and was cut twice before becoming the starting center as a senior.

Lucas said she is a lifelong bicyclist who does all her commuting and errands on two wheels and doesn’t even own a car.

Cal Poly alum and pro baller Ryan Darling

When President Obama and his family traversed Martha’s Vineyard on vacation in August, they did some of their touring on bikes designed by Cal Poly graduate Amber Lucas (B.S., Mechanical Engineering, 2007).

According to the Gilroy Dispatch, Lucas, who lives in Morgan Hill, Calif., is one of 20 designers working for the company Specialized Bikes. She is the only one designing urban bikes and said her designs are immediately recognizable.

Hill, Calif., is one of 20 designers working for the company Specialized Bikes designed by Cal Poly graduate Amber Lucas.

In the NEWS

> PERSISTENCE PAYS OFF FOR FORMER MUSTANG BASKETBALL FORWARD

It wasn’t an auspicious start, being the manager of the team, not when he wanted to play. But Ryan Darling (B.S., Business Administration, 2010) earned a spot on the Mustangs basketball team as a walk-on and was cut twice before becoming the starting center as a senior.

And his story didn’t end there. As ESPN reported in September, the 6-foot-8 Darling has signed a one-year contract with a professional basketball league in Germany.

> ALUMNI’S START-UP HELPS AIR FORCE WITH UNMANNED FIGHTER CONTROLS

 AeroMech, a San Luis Obispo engineering firm started by Cal Poly graduates Thomas Akers (B.S., Aerospace Engineering, 2001) and Norm Timbs (B.S., Mechanical Engineering, 1988; B.S., Engineering Technology, 1992), is partnering on a project contracted by the U.S. Air Force to develop an alert system that will prevent unmanned aircraft from flying into other drones or manned aircraft.

> ENGLISH GRAD’S WAY WITH WORDS BRINGS STATEWIDE HONOR

Chris (Weygandt) Alba (B.S., English, 1978) won first place in the California State Poetry Society’s annual contest with the poem “How an Egret Saved Me.” Alba finished atop a field of 169 entries.

A native of Paso Robles, Calif., Alba worked for 20 years as a magazine journalist and editor before returning to northern San Luis Obispo County 12 years ago, according to the San Luis Obispo Tribune.

> ELECTRONIC ENGINEERING ALUM NAMED DISPLAYLINK’S SALES VICE PRESIDENT

John Cummins (B.S., Electronic Engineering, 1994) was named DisplayLink’s vice president of worldwide sales. The company produces virtual graphic chips to peripheral markets and smartphone and mobile device display applications.

According to BusinessWire, Cummins joined DisplayLink after serving as chief executive officer of chip company ZeroG Wireless Inc. Prior to that, he worked with Agere Systems, Sun Microsystems and Cypress Semiconductor.

> MECHANICAL ENGINEERING GRAD DESIGNS A PRESIDENTIAL RIDE

It wasn’t an auspicious start, being the manager of the team, not when he wanted to play. But Ryan Darling (B.S., Business Administration, 2010) earned a spot on the Mustangs basketball team as a walk-on and was cut twice before becoming the starting center as a senior.

And his story didn’t end there. As ESPN reported in September, the 6-foot-8 Darling has signed a one-year contract with a professional basketball league in Germany.
If a charitable donation appeals to you, there are some important things to consider. For instance, it's important to establish the funds destined for the charity in a retirement account that is distinctly separate from any retirement account designated for other heirs. Each retirement account must be distributed within a certain interval after death.

<table>
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*COMBINED FEDERAL & CA RATES

YOUR HEIRS MAY BE ELIGIBLE FOR A STEP-UP IN BASIS ON THE NON-RETIREMENT ASSETS, WHICH MEANS THEY ARE LIKELY TO BENEFIT FROM A TAX SAVINGS WHEN THEY DO EVENTUALLY DIVEST THEMSELVES OF THE ASSET.

That interval is based on the life-expectancy of the heirs on that particular account. But charities have zero life expectancy, according to the IRS. If the charitable gifts are in the same account as the funds designated for other heirs, the arrangement can force other beneficiaries to liquidate assets sooner than may be optimal. Separating the funds into different accounts avoids that complication. Or, if you have a mix of assets and other non-retirement assets, you may consider giving the assets in the retirement account to Cal Poly and bequeathing the non-retirement assets to your heirs. Non-retirement assets may not face the same tax liability. Your heirs may be eligible for a step-up in basis on the non-retirement assets, which means they are likely to benefit from a tax savings when they do eventually divest themselves of the asset.

Before making any changes, it's important to consult with your tax adviser and the planned giving officers at Cal Poly to determine the optimal strategy for your particular situation.

For more information about these giving options, contact:

**PLANNED AND MAJOR GIFTS OFFICE**
Heron Hall, Building 117
Cal Poly
San Luis Obispo, CA 93407 0444

Phone: (805) 756-7125
Toll Free: (800) 549-2666
Fax: (805) 756-2711
E-mail: plannedgiving@calpoly.edu
Web: www.plannedgiving.calpoly.edu

"I owe where I am to the education Cal Poly gave me." 
-Mike Avella, Civil Engineering, 1980

AS THE END OF THE YEAR APPROACHES, many pause to review, reflect, and plan. Thoughtfully addressing your charitable giving priorities between now and December 31 can help assure maximum benefits for you and your charitable interests. We hope you will consider including Cal Poly in your year-end giving plans.

To make a gift in 2010, please consider the following options:

**GIFTS OF CASH** Donations must be postmarked on or before December 31.

**ONLINE GIVING** You may visit www.giving.calpoly.edu to make a gift using your credit card on our secure online giving site.

**STOCK DONATION** By making a gift of appreciated assets, you may be able to take advantage of your gift’s full fair market value without paying capital gains.

**BEQUEST** Toward the end of each year, many people also review their long-range estate and financial plans.
IN WITH A PEEP, OUT WITH A ROAR

FOUR CAL POLY SOPHOMORES TASTE SWEET VICTORY AT THE RED BULL FLUGTAG

BY MATT LAZIER

TO THE LIST OF GRACEFUL AND AERODYNAMIC birds of the world, we may now add the peep – thanks to four Cal Poly sophomores.

That’s right, the peep – the little yellow marshmallow chicks you see in stores around Easter. Only this particular peep wasn’t little – nearly 400 pounds, with a 24-foot wingspan. And it was made of styrofoam, PVC and aluminum.

Oh, and far from a flightless marshmallowfowl, this peep soared 98 feet to defeat more than 30 competitors at the 2010 Red Bull Flugtag in Long Beach in August.

After gaining entry into the contest (only 34 teams were picked out of more than 380), the Cal Poly crew spent the summer refining and building their contraption – something like a biplane with a peep-shaped base.

Taking the stage in Long Beach, the ladies found themselves the center of attention for a crowd of more than 105,000.

“Takin’ the stage in Long Beach, the ladies found themselves the center of attention for a crowd of more than 105,000. Perhaps the most surprising element of the victory: None of the students studies engineering (though Schnieders loves flying, wants to switch to mechanical engineering and aspires to be an astronaut). Curran is an art student, Morrow is majoring in social science, and Smith studies graphic communication.

For additional photos and information on Cal Poly’s flugtag-winning team, check out the online edition of Cal Poly Magazine at www.magazine.calpoly.edu.
Change Service Requested

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.

BEFORE THEIR HOMECOMING MATCH Oct. 30 against St. Francis (Pa.), members of the Cal Poly Mustangs football team pause at Memorial Rock to reflect on the 16 players and six others killed in an airplane crash Oct. 29, 1960 in Toledo, Ohio.

Prior to each home game, Cal Poly football players pay tribute to the 1960 football team at the rock at the north end of Alex G. Spanos Stadium. For each road trip, the team loads up the buses near Mott Gym, drives to Spanos Stadium and walks to the rock.

Cal Poly marked the 50th anniversary of the crash during Homecoming with a memorial ceremony attended by some of the 26 survivors and their family members.

For more on Homecoming 2010, visit the online edition of Cal Poly Magazine at www.magazine.calpoly.edu.