EDUCATION IS SWEET

ALSO INSIDE: A MEAN, GREEN ENERGY MACHINE | ROBOTS & THE UNDERWORLD
DEPARTMENTS

04 UNIVERSITY NEWS
27 ALUMNI NEWS AND TRAVEL
30 HOT SHOTS – INGA SWEARINGEN

COVER STORY
12 CAL POLY CHOCOLATES
Creating a sweet educational experience

FEATURES
08 HIRING OR LOOKING FOR A JOB?
Lose your Mustang modesty and use Cal Poly connections on PolyLink
09 COPEing WITH AN EPIDEMIC
Ann McDermott has a new recipe for the next generation
10 OF ROBOTS AND THE UNDERWORLD
Christopher Clark explores the secrets of Malta

15 THE BIG QUEASY
Alumna ‘mompreneur’ knocks nausea to its knees
16 A MEAN, GREEN ENERGY MACHINE
Ilhami Yildiz researches a new kind of fuel
18 FROZEN IN TIME AND FILM
Journalism alum David Middlecamp brings new life to old memories
20 THIS WAS JUST THEIR LIVES
Cal Poly QL+ Center puts the pieces together for the veterans’ battle after the war
23 CHANGING SPACES
University Union and Recreation Center scheduled for new look
24 BRINGING HIS GAME TO CAL POLY
Tim Walsh wants to make football games ‘must-see’ events
28 LAUNCH AND ASCEND
Cal Poly supporters come from all stages of life and career

Back page: Amanda Knudson, Danielle Reyes Brown, Payden Bennett and Corey Fujioka with a delicious batch of Cal Poly chocolates.
CAL POLY ROSE FLOAT WINS VIEWERS’ CHOICE AWARD


The float was built by students at Cal Poly in San Luis Obispo and California State Polytechnic University in Pomona. Parade fans cast their votes at www.ktla.com/roseparade. At this site, they were able to view video of the Rose Parade, see the floats again, or catch the parade in its entirety for the first time if they missed it on television.

The Cal Poly float is the only entry in the annual Tournament of Roses parade that is designed, built and decorated solely by students and volunteers – a tradition that dates to 1949. Students in the rose Float programs at each campus build half of the float. Cal Poly, San Luis Obispo’s half is to 1949. Students, parents, alumni and volunteers put the finishing touches – including flowers – on the float in Pasadena during “Deco Week” before the New Year’s Day parade.

“Seaside Amusement” featured a working Ferris wheel, a roller coaster and a parachute drop. Cal Poly planted more than 2,000 marigolds and asters to use on the float.


CAL POLY ADDRESSES SCIENCE AND MATH TEACHER CRISIS

CAL POLY IS SEEKING to make a strategic impact on science, technology, engineering and mathematics (STEM) education in California with a new model for teacher preparation.

The College of Education, the College of Science and Mathematics, and the Liberal Studies Department are joining forces to create a premier program that will attract top students into science and math teaching.

“The nation is facing a crisis,” said Cal Poly President Warren J. Baker. “We are not producing or retaining enough science teachers to keep up with national demand. This compromises our nation’s scientific infrastructure and severely impacts our economy.”

Cal Poly is a national leader in preparing undergraduates for careers in the STEM professions through a learn-by-doing approach that extends inquiry-based, experiential learning to real world problems. “The university can impact this national crisis by expanding our leadership and approach across all levels of the STEM education system,” said Provost Robert Koop.

“This new partnership will make Cal Poly one of the top schools in the nation for STEM teacher preparation. This emphasis complements our other excellent credential and graduate programs,” said Dean Phil Bailey of the College of Science and Mathematics and Dean Bonnie Konopak of the College of Education. Look for more details in future campus publications.

CAL POLY NAMED TO PRESIDENT’S HONOR ROLL FOR COMMUNITY SERVICE

CAL POLY AND 15 OTHER California State University campuses were named to the President’s Higher Education Community Service Honor Roll.

It’s the third straight year Cal Poly has been named to the honor roll, which was created in 2006 to recognize colleges and universities nationwide that support innovative and effective community service and service-learning programs. Cal Poly and the other CSU campuses are among 635 institutions nationwide named to the 2008 president’s honor roll.

“NEARLY 50 PERCENT OF OUR STUDENTS NOW PARTICIPATE IN SERVICE, WHICH EQUALS TO 32 MILLION HOURS OF SERVICE…”

“I am proud of the outstanding service our students provide to their communities on a daily basis,” CSU Chancellor Charles B. Reed said. “Nearly 50 percent of our students now participate in service, which equals to 32 million hours of service for an economic impact of $624 million. Our faculty and staff are equally engaged, providing leadership and innovative teaching practices.”

At Cal Poly, 9,500 students performed 223,525 hours of volunteer work in and around San Luis Obispo in the 2007-08 academic year, according to data Cal Poly’s Student Community Services program collected for applications for the honor roll.

The state’s official estimate for the value of one hour of volunteer work in the community is $21.97, putting Cal Poly students’ 2007-08 efforts at $49.9 million.

PUBLIC AFFAIRS WINS TWO GOLD CASE AWARDS

UNIVERSITY ADVANCEMENT and the Public Affairs office received two gold medals in the annual awards competition sponsored by the Council for the Advancement and Support of Education, District VII.

The successful launch and membership drive of PolyLink, the new online community for Cal Poly alumni, won the top award for Best Social Media Campaign.

The free and social media networking site was jointly developed by Public Affairs, the Cal Poly Alumni Association, and Advancement Services, with support from Information Technology Services. To view PolyLink, go to http://www.CalPolyLink.com.

The second award was for Best E-mail Newsletter – for Update, which is edited by Teresa Mariani Hendrix. The monthly online publication goes to alumni, donors and other Cal Poly supporters. This is the second CASE award for Update, which also won a bronze medal in 2005.

“We are proud of this recognition for our efforts to focus on using electronic and new media to directly communicate with Cal Poly graduates, donors and other friends of the school,” said Leah Kolt, public affairs director.

During PolyLink’s first year of operation, marketing efforts drew more than 10,000 alumni members, she added. And Update reaches some 10,000 readers each month with news about the accomplishments of Cal Poly students, faculty and staff.

CASE District VII represents colleges and universities in the western region of the United States, including Arizona, California, Guam, Hawaii, Nevada and Utah.

(L-R) Teresa Mariani Hendrix, Matt Lazier, Stacia Mommberg, Jasen Kott, Scott Rosnek, Barbara Brunner and Mary McNally
CAED PROGRAMS RANK NATIONALLY

TWO PROGRAMS in College of Architecture and Environmental Design placed in the national 2009 DesignIntelligence survey. The Architecture Department ranked third among undergraduate programs, up from fourth place the previous year. The program has made the nation’s Top 20 list since 2003 with a ranking of sixth or better. The Landscape Architecture Department ranked 10th in the list of the nation’s Top 20 undergraduate programs. The program has made the list since 2005, ranking as high as fifth in 2007.

The 10th annual survey queried leading practitioners from a cross-section of industries and regions about the programs they considered to be best overall and their satisfaction with new graduates. For more information about programs in the College of Architecture and Environmental Design, go to www.caed.calpoly.edu.

CAL POLY RESEARCHERS REPORT ON ROBOTICS IN WARFARE

THE ETHICS + EMERGING TECHNOLOGIES GROUP at Cal Poly recently released “Autonomous Military Robots: Risk, Ethics, and Design,” a major report on the ethics of robots in warfare. The 100-plus page report, funded by the U.S. Department of Navy, Office of Naval Research, addresses a range of issues, including current and predicted states of robotics, different programming approaches (top-down, bottom-up, etc.), just-war challenges, legal responsibilities, and other ethical concerns ranging from accidental deaths to robots’ rights.

“The public is generally surprised when they hear how great a role robots are playing in the military,” said Cal Poly Philosophy Professor Patrick Lin, director of the research group and co-author of the report. “But there hasn’t been much dialogue about the risks posed by these machines, especially as they are expected to be given more autonomy or a greater ability to make choices on their own, such as attack decisions.”

Additional co-authors of the report are George Bekey, special consultant in Cal Poly’s College of Engineering, and Keith Alney of the university’s Philosophy Department. Bekey, an emeritus professor at the University of Southern California, is founder of USC’s robotics lab and author of the book “Autonomous Robots.”

MEL KAUFMAN

MEL KAUFMAN (SOC’S 84), a linebacker on the Mustangs’ NCAA Division II national championship team in 1980 and an eight-year veteran of the National Football League’s Washington Redskins, passed away recently at home in Santa Margarita, just north of San Luis Obispo. He was 50 years old. No cause of death had been announced at press time.


He was hired as linebackers coach at Cal Poly last spring and helped guide the Mustangs to an 8-3 record, a Great West Conference title, and their second NCAA Division I Football Championship Subdivision playoff berth.

“It’s a tragedy. He was a compassionate man,” said former Cal Poly head coach Rich Ellerson, who became head coach at Army in December. “I pray that the stress of the coaching business wasn’t a contributing factor. He was just a good guy, a passionate guy, a Mustang.”

EDWARD C. SULLIVAN

EDWARD C. SULLIVAN, assistant dean and professor with the College of Engineering, passed away recently from metastatic melanoma. Surrounded by family, he was 64 years old.

A member of the Civil and Environmental Engineering faculty since 1989, Sullivan taught transportation engineering classes emphasizing traffic analysis and modeling, evaluation methods and traffic collision modeling. He also has been a lecturer at Northern Jiaotong University (also known as Beijing Jiaotong University) and a visiting professor at the Universidad Central de Venezuela.

Sullivan was recently honored by the Transportation Research Board in Washington, D.C., receiving the 2008 Frank M. Masters Transportation Engineering Award from the Transportation and Development Institute for his innovative research on road pricing.

He earned a bachelor’s and master’s degree in civil engineering from the Massachusetts Institute of Technology and a doctorate in civil engineering from UC Berkeley. Sullivan also earned an MBA from John F. Kennedy University.

While attending school in Boston, he met his wife, Donna. They were married for 43 years.

According to colleagues, Sullivan was a great scholar and true gentleman, always willing to share time and knowledge to help others.

PROFESSORS AND STUDENT PART OF GATES-FUNDED PROJECT

TWO CAL POLY AGRIBUSINESS professors and a student are taking part in a UC Davis research project on improving child nutrition in developing countries and plan to travel to Africa this summer as part of their work.

James James, along with fellow agribusiness Professor Mari-anne McCurry Wolf and student Morgan Howe-Cobb, will perform market experiments for a cost-effective, fortified peanut butter nutritional supplement to improve nutrition for children and women in impoverished nations. The supplement, LNS, is a lipid-based nutritional supplement.

“The aim is to determine if the product is priced affordably and whether there are other issues influencing consumers’ willingness to buy it,” James said.

James, Wolf and Howe-Cobb are just beginning preliminary work on their portion of the project, with a scheduled trip to Africa this summer. There, they will begin to assess market conditions in the study areas and to look for potential retailers with whom to partner for their research.

Visiting Africa will be a dream realized for James, who said she has a keen interest in battling the problem of hunger and malnutrition in impoverished countries there.

“There is so much hunger in that part of the world, and I don’t think it has to be that way,” James said. “I want to do anything I can to make a difference. The possibility of my research helping to reduce hunger, even for a few people, is a big motivator for me.”
NEED AN ECONOMIC LIFELINE IN 2009? Experienced executives say Cal Poly connections – especially among alumni – may be the key.

In 2008, Jennifer Rosky, an alum and a Los Angeles-based recruiter and career coach, placed 18 executives in jobs paying $100,000 plus. She helped place hundreds more on corporate ladders elsewhere. But so far in 2009, “all those jobs have all dried up,” Rosky said. “Most places aren’t hiring, and the employers who are hiring are getting 400 applications for every opening. They’re overwhelmed.”

Her advice to those looking for jobs or who think they might need to look soon: be a part of multiple online business and social networks, and join industry-specific as well as location-specific groups within those networks.

“Everything is based on networking now. It’s who you know and who’s in your network. I tell everyone to create your own web, just like a spider,” she said. “You need to let your network know who you are – and what your ‘leveragable’ skills are.”

John Sweeney (CE ’89), an Alamo-based consultant, agrees. “I was crushed after being laid off for the first time and came back down to Cal Poly. I talked to (CE NG Dean) Peter Lee, who had been a mentor to me while I was a student, and he personally helped me find my next job,” Sweeney said. “I want our young – and not so young – alumni who are experiencing the same thing now to have that same kind of help from Cal Poly friends, alumni and faculty.”

Despite what may be Mustang modesty, “We need to band together and be very vocal about being Cal Poly alumni, and we need to let people know what that means,” Rosky said.

USING POLYLINK AND ONLINE COMMUNITIES FOR CAREER NETWORKING

With 10,500-plus alumni members, PolyLink, is a prime place for free online career networking, say Rosky and Sweeney.

PolyLink is free and private – it’s limited to alumni, faculty and staff. Partly because of that online security, most PolyLink member alumni have their business and career information listed on their PolyLink profiles.

While LinkedIn charges for some information and search results, everything in PolyLink is free. Alumni also have the ability to contact roughly 25,000 other alumni through “blind” e-mail sent through the PolyLink network.

Alumni recipients of PolyLink in-system e-mails always have the option of choosing to ignore the message or respond, just like in other online networks. Replies can be direct from the alumni’s own e-mail basket, or sent in-network via PolyLink (without revealing any e-mail address information). More than 1,200 PolyLink alumni have said they’re willing to mentor other alumni.

Even if you think your job is secure, Rosky said networking is always a good idea. “The truth is everyone’s career is always in transition.”

OBESEITY PREVENTION AND EDUCATION PROFESSOR HAS A NEW RECIPE FOR THE NEXT GENERATION

ANN MCDERMOTT wants to teach your children how to cook.

McDermott, an accomplished researcher on nutrition, has come to Cal Poly with a plan to battle the expanding waistlines of youth on the Central Coast, in the state and, ultimately, the nation.

McDermott is the director of Cal Poly’s developing Center for Obesity Prevention and Education (COPE), which is focused on positioning Cal Poly as a nationally recognized educational resource for health and obesity-related expertise. COPE is driv­ ing an agenda of comprehensive programs to improve cardio­vascular health, body composition and mental well-being, pro­ moting a love of physical activity and healthy eating.

COPE has partnered with local businesses and organiza­ tions to create “Pink and Dude Chefs,” an after-school culi­ nary program for San Luis Obispo County middle school students. The six-week program, led by an inter-disciplinary team of Cal Poly students, promotes knowledge of cooking and healthy food choices, allowing children to use kitchen tools and plan a menu. At the end of the six weeks, students host a “festa” and prepare a meal for their friends and family.

“In teaches children how to plan. We are not a society that hosts a ‘fiesta’ and prepare a meal for their friends and family.

“Children today will be the first generation in two centuries whose projected life spans are shorter than their parents because of being obese. “One study found that 80 percent of the children who were overweight or obese at ages 10 to 15 years were obese adults at age 25 years,” said McDermott. “The numbers are alarming to say the least. Children at low socio-economic levels, specifically Hispanics and African-Americans, are particularly at risk.”

To compound this, research indicates that most parents don’t recognize when their child is overweight. If you don’t see the issue, you don’t take action, she said.

Without COPE the need for healthy food and exercise is particularly acute. Without COPE the need for healthy food and exercise is particularly acute.

“Another popular COPE after school program is "WHAMI!," which introduces middle school girls to fun, life-long, non­competitive activities such as spin, strength training, yoga, Pilates and kick-boxing. It is designed, assessed and evaluated by Cal Poly students.

But these efforts are only the beginning, according to McDermott. COPE is planning a “HANDS on Health Festi­ val,” the first annual collaborative Central Coast symposium on health and nutrition on the Cal Poly campus, tentatively scheduled for Oct. 30 and 31. COPE also has spearheaded ef­ forts to bring nationally-renowned speakers to campus. The most recent was Brian Wansink, a national best-selling author and nutrition expert.

McDermott has a doctorate in biochemical nutrition from Tufts University in Massachusetts and completed a fellowship in obesity science and genetics. Before coming to Cal Poly, the lifelong Boston resident worked extensively with research teams and nutrition and exercise intervention studies at Tufts, targeting all ages and health levels. She also had a private clini­cal practice in Boston, keeping her tuned in to what people think is important, not important or too difficult when it comes to exercise and nutrition.

“Our children’s health can be called a national crisis,” said McDermott. “COPE is striving to create a model for other nu­tritional research efforts across the country. Keep your eye on us. This is only the beginning.”
SECRETS FROM WHEN CAESARS ruled the world are still abundant. But a few may be given up thanks to the efforts of one Cal Poly computer science professor.

Scientists are getting the first looks in as many as 2,000 years inside large water cisterns under historic buildings on the island nation of Malta, just south of Sicily. And software written by Professor Christopher Clark is playing a major role in the archaeological expedition.

Clark and three other scientists are sending remotely operated, underwater robots into the water cisterns on the island in the Mediterranean Sea. Clark's programming is even allowing the team to use sonar on the robots to map the inside of the cisterns.

The project combines many of Clark's academic passions and personal interests – autonomous robots, history, and travel and foreign cultures. And through his continuing involvement in the project, Clark is giving five Cal Poly students the chance to share in the experience.

Clark became involved in the project in late 2006, when he attended a conference put on by Video Ray, a company that makes underwater, remotely operated vehicles. There, marine technologist Chris Olstad gave a talk on how he and two other researchers had sent ROVs into the cisterns Malta's residents used to store water and possibly other goods when they were under siege.

The researchers at that point had only used ROVs to transmit back images. "They were fascinating images," Clark said. "But I told them I think you could do more."

He spoke with Olstad and then with Timmy Gambin, the archaeologist who initiated the project (which is supported by the Aurora Trust and Marine Resources Development Foundation), proposing to map the inside of the ancient chambers. Clark wrote computer software to enhance the ROVs – allowing them to use sonar to map the cisterns and to be pre-programmed to move autonomously throughout the chambers.

Clark visited Malta in 2008 for the group's second expedition, during which his enhancements to the ROVs allowed the researchers to completely map six cisterns.

Clark and Gambin chose the participants in the fall and spent winter quarter training them on the cistern project and Malta's culture.

"We wanted students who had definite reasons for wanting to go and who would experience personal growth and gain technological experience," Clark said. "We have one whose hobby is creating 3-D architectural images on the computer. Another student is very interested in Malta's history and architecture, because they had a relative who was there in World War II."

ICEx plans to lead small student groups on international projects each year. Meanwhile, Clark also is preparing to translate his ROV programming techniques to a second project. He and Cal Poly biology Professor Pat Fidopiastis will use the ROVs to research the bioluminescence of squids off the beaches of Hawaii this summer.

Fidopiastis said Clark's work with the ROVs will allow the squid research to break new ground.

"Unlike previous studies that took place in laboratories," he said, "researchers in this project will be able to correlate squid bioluminescence and behavior to variables associated with the squid's habitat."

Clark said, how technology developed for one use can be translated to others.

"This kind of tracking and mapping can be used for research, defense and homeland security, pipeline inspection," Clark said. "It's an example of technologies building on one another."
If Willy Wonka came to Cal Poly, this is where he would hang his hat.

Against the wall, tempering machine wheels whirl and spin various colors of velvety melted chocolate. Nearby, two student employees in hairnets and gloves tap newly dipped cashew caramels softly against the sides of bowls, coaxing air bubbles out of the chocolate coating.

Across the room, a third student bends plastic molds to free dozens of recently cooled chocolate hearts and bittersweet bars.

By 6 p.m., the half-dozen employees in the noisy kitchen will have produced hundreds of chocolate treats by hand - no Wonka Bars but plenty of milk chocolate, bittersweet, peanut butter crunch and peppermint crunch bars, butterscotch s’mores, cashew caramels, peanut-butter cups and chocolate-covered macadamia nut.

“It’s complicated, because everything is done by hand” said Amanda Knudson, a nutrition major who serves as the program’s student manager. “But it’s an incredible opportunity. I was able to get a scholarship because of my work here.”

Both a learning opportunity and a small business, Cal Poly Chocolates teaches students the particulars of chocolate making – from production of the goodies to packaging and distribution. It also teaches them general food services and production skills that can be applied to a wide variety of culinary professions. Some former employees and students have gone on to culinary management jobs for companies such as Ghirardelli Chocolate and San Luis Sourdough.

Cal Poly’s course is the only one in the United States in which undergraduate students produce chocolate, said Tom Neuhaus, the Cal Poly food science and nutrition professor who launched Cal Poly Chocolates in April 2000.

The treats, in wrappers and boxes bearing the iconic aerial view of Cal Poly, are available at the Campus Market and at some San Luis Obispo retailers, such as Apple Farm and the Crushed Grape. And campus departments and offices often buy chocolates for fundraisers or gifts. The students sometimes use special molds for these treats, such as chocolate gear wheels for the College of Engineering.

“I wanted to be where you could start classes in which the students actually do things,” he said. “I wanted to give students the chance to try things and to mess up. When you mess up,
The program has grown. Neuhaus recalls initially teaching students how to make chocolate by microwaving it in bowls and stirring with wooden spoons. Annual sales were about $10,000 a year then, compared to about $30,000 now.

At first, Neuhaus said, the operation was too ambitious and students were like kids in a candy store. “We were dipping all kinds of stuff into chocolate – too much stuff,” he said. “And we had too many different labels. We didn’t have the labor to keep up.”

They streamlined their products and settled on packaging, gaining efficiency and helping to cut costs. Neuhaus also switched from $5-per-pound Swiss chocolate to fair-trade ing, gaining efficiency and helping to cut costs. Neuhaus also mentioned that they switched from $5-per-pound Swiss chocolate to fair-trade chocolate because it “costs half as much and tastes better.”

Switching to fair-trade chocolate enabled them to offer a variety of products, as well as to keep pace with the growing demand for chocolate. Neuhaus also noted that switching to fair-trade chocolate helped them to streamline their operations and to cut costs.

Around the same time, Neuhaus added two chocolate classes to the enterprise. Students learn about theories of chocolate-making science, as well as the history of the sweet stuff. They also work in the kitchen making chocolate, alongside the student employees.

Both Cal Poly Chocolates and the associated classes attract a variety of students – not just nutrition or food science majors – including chocomilies from business and engineering.

The staff fluctuates from half a dozen to as many as 16 students with the most robust times around the holidays, when demand for the chocolates hits its annual high point.

Despite America’s collective sweet tooth, Neuhaus thinks Cal Poly Chocolates has peaked. The program isn’t likely to grow without additional products or an increase in production, which would require additional machines to automate the process.

Neuhaus hopes Cal Poly and other schools with chocolate programs can attract a fortune in fudge, or at least more attention from their industry as do other programs. “I’d like to see think academic programs in chocolate get the same investment as other programs.”

Poly Chocolates has peaked. The program isn’t likely to grow despite America’s collective sweet tooth, Neuhaus thinks Cal Poly Chocolates has peaked. The program isn’t likely to grow without additional products or an increase in production, which would require additional machines to automate the process.

Improved products and streamlined operations have contributed to the program’s success. Neuhaus says that the program is now more efficient and able to meet demand.

HOW DO YOU SPELL “BELIEF”? 

For tens of thousands of people suffering from nausea, it’s spelled “P-S-I.” As in Psi (pronounced “sigh”) Bands, stylish acupressure wristbands made of medical-grade synthetic rubber, co-created by alumna Romy Taormina (BUS’03) and Carla Falcone.

The attractive acupressure bands were born of necessity. When Taormina was pregnant with her two boys, now 9 and 6, she used a similar product – also based on the principles of acupressure – to alleviate her morning sickness symptoms. But those products were not stylish, and no other choices were available back then. They were gray, they weren’t waterproof, and they weren’t adjustable.

“Unfortunately, my nausea didn’t stop, because I needed to take a shower. So I was left with waterlogged wrist bands, or I’d have to take them off in order to shower.”

It wasn’t until Taormina was hosting a baby shower for her good friend and now business partner Falcone that the idea – the solution – suddenly presented itself. Taormina and Falcone were discussing how those dull gray, elastic acupressure wrist-bands worked but lacked functions and were unstylish. “We knew we could make something better,” Taormina said. “That was our ‘ah-ha moment’ – the gentle push they needed to give birth to Psi Bands.

“Mompreneur” Taormina and Falcone, both account executives at an advertising agency before they became partners in Psi Bands, envisioned wristbands that would be stylish, waterproof, adjustable around the wrist and at the acupressure point, comfortable and affordable.

Now they just needed to design and develop it. Realizing they could use some tips from an expert, Falcone sought the advice of good friend and product designer-developer Porter Schouten. “Not only did he want to give us advice, he wanted to be part of the business,” Taormina said.

And so in 2006 the three founded Psi Bands. The bands have only been available to the public since October 2007, but it hasn’t taken long for the nifty, stylish device to take off. The product is now offered nationwide at more than 5,000 Rite Aid stores, more than 400 Longs Drug Stores, RITE, Pharmaca and online at Amazon.com and drugstore.com, to name a few.

The trio is growing its company internationally. But because Psi Bands are a medical device, it gets complicated to import them. Each country has its own set of rules and regulations, explained Taormina. FDA-cleared Psi Bands are considered a medical device, because the product alleviates nausea, a medical condition.

By employing the ancient healing art of wrist acupressure, Psi Bands relieve the symptoms of nausea and vomiting caused by morning and motion sickness, as well as the side effects of chemotherapy and anesthesia. The bands are placed on the inside of both wrists, 1/2 finger widths above the center of the wrist crease between the wrist tendons, an acupressure point known as Nei-kuan. The band has a button facing in and an Adjustable dial to personalize the amount of pressure applied.

Taormina said Cal Poly’s hands-on learning “absolutely, without question” helped her succeed in business. “I am able to jump into things, because I know I can. I learn by doing. Concept teaches you to not be afraid to take risks. We make mistakes, but mistakes become learning opportunities.”

Cal Poly, she said, also teaches students to work together as a team. “I learned that the sum is greater than its parts.”

There was no way to prepare Taormina for the challenge of juggling work and home, though. “Separating work from home is one constant challenge. These are simply not smooth waters in the day to accomplish everything I prefer. But I would not have it any other way.” She loves what she does and knows she is providing a good role model for her sons.

Along with the company’s success and growth, Taormina has grown too. “I am learning to enjoy the journey,” she said. “Running a business is a roller coaster. There are highs and low points. I try to savor and enjoy it all.”

To would-be student entrepreneurs Taormina says, “Believe in yourself and your product or service. It takes passion, determination, creativity and resourcefulness to breathe life into an idea, but it’s incredibly rewarding to do what you love.”
POD SCUM MAY FUEL A REVOLUTION thanks to Professor Ilhami Yildiz and his students.

Since joining the BioResource and Agricultural Engineering Department two years ago, he has already helped propel Cal Poly to the forefront of the national race to develop alternative fuels. Through Yildiz’s research, Cal Poly has become the first in the country to establish a rigid-tube, closed-system photobioreactor for growing algae, one of the most promising forms of renewable biofuel.

Algae has many attributes, the first being high oil content. Compared to other crops, such as corn or soy, algae has the potential to generate more than 100 times the oil output – and that’s before genetic engineering or researching different strains of the green goo.

At the same time, it can be cultivated anywhere, as Yildiz points out, “on mountaintops, on rooftops, in the desert, anywhere” so it doesn’t compete with food production for the use of agricultural land, helping to stabilize food prices.

That’s where the photobioreactors come in, a system of enclosed solar tubes designed to mass-produce algae. Until the advent of controlled-environment systems, algae had been cultivated on ponds. However, only the top two or three centimeters of pond water got enough sun to foster growth.

The photobioreactors maximize algae production by increasing the volume of surface area exposed to light, and the closed-system model allows them to closely monitor and calibrate various conditions to determine the most efficient way to mass-produce what Yildiz calls his “little green friend.”

Ultimately, the ancillary benefits may be as beneficial to the environment as the development of a renewable energy source. The four elements necessary to grow algae are water, air, sunlight and, Ironically, carbon dioxide, a major culprit in global warming. With the development of closed-end systems, carbon dioxide can be captured from other sources, including Omega-3 and algae-cake (a euphemism, to be sure), a protein-rich source of animal feed. Even waste-water is repurposed as fertilizer for the algae. Nothing is wasted.

To say that Yildiz is enthusiastic is something of an understatement. “You have to describe him with a metaphor that involves energy,” commented Mark Shelton, associate dean of the College of Agriculture, Food and Environmental Science. “He’s not only working on energy, he’s generating energy. His attitude is infectious, and the students get that.”

“I am honored to work with such students,” Yildiz says of the cross-section of students his work attracts from majors across the campus. “They help each other. Some are strongest in math, some in biology or engineering. As an interdisciplinary group, it works so well.”

The team meets weekly for updates, private tutoring, technical presentations, faculty visits, mentoring and bonding. “No matter how long it takes each week, we stay here,” said Yildiz.

So far, they designed, built and operated a lab-scale model in the loft next to Yildiz’s office overlooking the Bioresource and Agricultural Engineering workshop.

Students also helped technicians install the full-scale photobioreactor project, working throughout Dead Week to get it done. One student has already authored three peer-reviewed papers. Several were offered jobs after attending a conference with Yildiz. Others have been admitted to grad school.

In addition to winning a grant from the U.S. Department of Agriculture, the program is attracting budding interest from public and private partners. “When he came here, we didn’t have anything except some greenhouse space to support what he wanted to do,” Shelton offered. “He is building the infrastructure, and there is a tremendous potential to grow in bio-process engineering.”

For more information, go to www.brae.calpoly.edu

(© Ilhami Yildiz examines the photobioreactor that will turn algae into fuel)
FROZEN IN TIME AND FILM
JOURNALISM ALUM DAVID MIDDLECAMP BRINGS NEW LIFE TO OLD MEMORIES

PHOTOGRAPHER DAVID MIDDLECAMP (JOUR ‘85) walked into one of his newspaper’s storage closets to find an old picture and had an epiphany when he saw the dozens of yellow boxes of negatives – images of county news stretching back more than five decades.

“It seemed like such a waste,” he said. “These were people’s careers just sitting on the shelves, not being used.”

There were stories in those old boxes, he thought – history lessons about San Luis Obispo County’s past that could also give readers perspective on the present.

So to help people remember the past, Middlecamp looked to the future. On Nov. 13, 2007, he launched a thrice-weekly blog, “Photos from the Vault” on SanLuisObispo.com, the Web site of his longtime paper, The Tribune in San Luis Obispo.

Middlecamp scans in photos and old front pages, telling the stories behind some images and asking readers for help when information on others is scarce.

Some entries give a simple glimpse back in time. His first post showed Monterey Street in 1963, beside a 2007 shot to show the changes. He’s featured scenic images from around the county; local visits by prominent celebrities and politicians; holiday parades and major projects, such as work on the Diablo Canyon nuclear power plant.

Other entries highlight current events from a historical perspective – such as photos from the opening of San Luis Obispo’s Mervyn’s store in 1983, just as it was preparing to close in late 2008 – or reminders to readers of anniversaries of major local events – such as the 100-year storm that brought record rainfall and floods to the county in 1969.

He uses his own memory and knowledge of community history to find some photos. Others he stumbles across while combing the archives. And he gets help from Sharon and Bill Morem, longtime residents and The Tribune’s librarian and columnist, respectively, and Danny Thorogood, the paper’s Web developer.

Cal Poly, so closely tied to the history of San Luis Obispo County, has been featured several times, with a look at enrollment on campus in 1965, late 60s political protests by students, and a feature on nuclear energy equipment being used on campus 45 years ago.

In a little less than a year, the blog has established a core readership, many of whom interact with Middlecamp and each other with comments postings – debating details of images and relating how the pictures touch the stories of their own lives.

By Matt Lazier

Readers log on from all over the United States. And a feature Thorogood recently added that translates the blog into almost three dozen languages is bringing in readers from around the globe.

“This blog draws an interesting type of reader,” Middlecamp said, “someone who is computer savvy and understands blogging but who is also interested in the past.” That description applies just as readily to Middlecamp.

“Nothing happens in a vacuum,” he said. “I have always been interested in how we got where we are, why things are the way they are.”

He is particularly fascinated with SLO County’s history. He was born here but moved with his parents when he was an infant. He visited his grandparents here frequently and returned after high school to become a third-generation Cal Poly student. He followed his father and grandfather, who both earned agriculture degrees, and several uncles. His grandfather, Lionel Middlecamp, went on to be the Cal Poly farm manager for 30 years, retiring in 1975. An agricultural scholarship is named for him.

For the past 23 years, David Middlecamp has documented San Luis Obispo County news in the pages of The Tribune. Now, he can add historian to his title.

With an established readership and a growing reach beyond SLO County, Middlecamp is thinking of the future of “Photos from the Vault.”

He’s trading links with similar blogs on other newspapers’ sites, including the Los Angeles Times and Houston Chronicle, and spreading the word about his blog through postings on other Web sites. And he’d like to find a way for the blog itself to generate revenue for the paper – which could then, in turn, expand the blog, he said.

“When I started this, I thought I would put up a photo and write a couple sentences, and 20 people would read it and it would last about a year,” he said. “But I put up one photo in the first couple months that didn’t have enough information with it, and people started arguing over the history. I hadn’t given them enough information.

“I went into the archives and found the information and gave it to them. And that was when I realized this thing could have some legs.”

To view David Middlecamp’s “Photos from the Vault” blog, log on to http://sloblogs.thetribunenews.com/slovault.
A 21-YEAR-OLD WOMAN lies in bed after a tour of duty in Iraq, leg gone from a roadside bomb, wondering if she will ever dance again—ever fall in love.

Another former soldier, a 19-year-old barely out of high school, lies in a hospital with his mother at his side after being severely injured in a firefight in the Iraq desert. Both wonder what’s next.

For many Iraq veterans, many the same age as a typical Cal Poly student, the real fight starts when arriving home after the sound and fury of war. Bodies are broken and disfigured. Minds are scarred. The rest of their lives loom before them.

Jon Monett (EE ’64) and Robert Barron want to start the healing process for these young veterans and others like them. Both have been instrumental in founding the new Ql+ Center on the Cal Poly campus, a facility for research and development of prostheses for individuals who have experienced injuries from weapons, explosives or fire.

The Monett Foundation has supported the creation of the center with a $500,000 donation. Monett himself said that injured veterans will benefit from the development of technologies in a nonprofit setting.

“I was inspired to do this after seeing the movie ‘Fighting for Life,’ a documentary film by Terry Sanders that graphically depicts the struggles of wounded Iraq war veterans and the military physicians that care for them,” said Monett, who recently owned a technology consulting company. “We are, in effect, creating a start-up with a nonprofit motive.”

Monett and Barron are both long retired from government service, serving during the Cold War era and accumulating remarkable experience and perspective. Barron was a senior disguise specialist for the CIA, a talented artist who virtually transformed people’s identities with the use of silicone masks and high-tech prosthetic devices, all having to pass the closest of scrutiny—or agents’ lives would be in jeopardy,” said Barron.

Barron is working directly with Ql+ researchers at Cal Poly. He found his second calling shortly after retiring from the agency in the early 1980s. After attending a seminar on...
biomedical sculptures, Barron realized if he could put someone in hiding with an advanced disguise, he could bring a disfigured person out of hiding with a prosthetic device. Barron has helped hundreds of people since, many suffering from accidents or birth deformities.

“A prosthetic device increases the quality of life, eliminating the embarrassing stares and unwanted attention produced by differences,” said Barron. “It allows individuals to socially interact on a day-to-day basis and return to society as contributing members, serving a great psychological benefit in the rehabilitation of a person’s mental and physical well-being. It’s very gratifying work.”

Cal Poly Engineering Professor Dan Walsh is spearheading the on-campus effort, bringing together a group of multidisciplinary faculty and students in the College of Engineering and potentially other disciplines throughout Cal Poly. “The focal point is improving people and society – and students will be heavily involved with the research,” said Walsh, who also was moved by Sanders’ film.

The disciplines come together in remarkable ways. Consider how a typical prosthetic is made, said Martin Koch, laboratory manager and member of the Cal Poly QL+ research team. If you need to build a finger, you cast an existing finger and sculpture it with clay as a mirror image. A silicone mold results.

The QL+ Center would take this technology a step further, combining CAD scanning and molding, streamlining the process of creating prosthetics by bringing together new and old technology. If someone lost an ear, a laser could scan the remaining ear, creating a CAD image or mirror image of the lost ear. The silicone mold would be cast from this data, then artists such as Barron would perform their magic, matching the skin tone, etc. The new ear would be attached to the side of the patient’s skull using titanium pins.

Engineering, art and design are truly blended into one, said Walsh.

Many returning Iraq war veterans have physical problems that are even more severe, but the principle and technology for healing are the same. According to Monett, the QL+ Center will build on what Bob Barron has already accomplished, finding new ways to efficiently develop these prosthetic devices as wounded soldiers return home.

“The men and woman who volunteer to enter the armed forces are some of the best,” said Monett. “It is incumbent on us to support them in their time of need.”

Editors Note: For more information on Robert Barron’s work, visit www.prosthesi.com. For more information on Terry Sanders’ film “Fighting for Life,” which premieres Memorial Day weekend on National Public Television, visit www.fightingforlifemovie.com.
IT’S NOT NEWS THAT TIM WALSH loves football. Cal Poly’s new head football coach has a career record of 117-82 in 18 seasons. But ask Walsh about his greatest success, and he’ll tell you it’s his family.

The 54-year-old father of Luke (28), Casey (26), Sean (24) and Megan (20) has been married to his wife, Jody, for 31 years. Jody has been an inspiration in my pursuit of my career.

Walsh remembers a conversation when he and Jody were newly married, telling her that he could make a living at coaching. “She told me to go do it. So I did. One might think spending six months of the year working seven days a week would take a toll on a spouse. Jokingly Walsh says, “Maybe that’s what kept us together.

Seriously, though, this is a really tough profession. Jody is alone a lot. Thank fully she really understands my love of the game,” he said.

In fact, the entire family understands Walsh’s love for the game and has managed to make it work. His long stint as head coach for Portland State University in Oregon enabled all four children to graduate from the same high school. While most college football coaches lead a gypsy lifestyle, Walsh was able to plant his family in Oregon long enough to be able to call it home.

He also managed to sign Sean at Portland State, with Luke being a walk-on. What would it say about me as a coach if I couldn’t sign my own kids, Walsh said with a chuckle.

TIM WALSH WANTS TO MAKE FOOTBALL GAMES ‘MUST-SEE’ EVENTS
It should be no surprise that the entire Walsh clan is athletic. Jody was a snow skier and competitive water skier. Luke, Sean and Casey all played basketball and football at high school, and Sean also wrestled. Megan played softball, basketball and volleyball at high school and currently plays softball for the University of San Diego.

Walsh played sports until he was 24. The former football, basketball and baseball player admits that by playing three sports your after you’re done, he didn’t give himself an opportunity to excel at one. “I was a quarterback, played third base and point guard!” When asked if he fancied himself a type of Bo Jackson, Walsh laughed. “Sure, at the opposite end of the athletic scale.”

Walsh has four siblings, including his twin sister, Tracie. Jody was a snow skier and competitive water skier. Luke, Sean and Casey all played basketball and football at high school, and Sean also wrestled. Megan played softball, basketball and volleyball at high school and currently plays softball for the University of San Diego.

Walsh played sports until he was 24. The former football, basketball and baseball player admits that by playing three sports your after you’re done, he didn’t give himself an opportunity to excel at one. “I was a quarterback, played third base and point guard!” When asked if he fancied himself a type of Bo Jackson, Walsh laughed. “Sure, at the opposite end of the athletic scale.”

Walsh's inherent love of family spills over into his approach to coaching football. “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE MOVIE: “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE FOOTBALL MOVIE: “The Longest Yard” (2005) – “Because Justin Wood (his new wide-receiver coach and former Portland State player) was the stand in for Adam Sandler. Anytime there was a shot of a well-thrown ball or a shot of Adam Sandler getting hit, that was Justin.”

He also loves “Brian’s Song.” “It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen.”

FAVORITE SPORT: “Football.”

FAVORITE DRINK: “Diet Pepsi.”

HOW HE SPENDS A SUMMER: “On the golf course with my wife. She loves golf!”

FAVORITE THINGS ABOUT SAN LUIS OBISPO SO FAR: “The ocean and golf. I hear there are some really great golf courses in SLO County.”

It should be no surprise that the entire Walsh clan is athletic. Jody was a snow skier and competitive water skier. Luke, Sean and Casey all played basketball and football at high school, and Sean also wrestled. Megan played softball, basketball and volleyball at high school and currently plays softball for the University of San Diego.

Walsh played sports until he was 24. The former football, basketball and baseball player admits that by playing three sports your after you’re done, he didn’t give himself an opportunity to excel at one. “I was a quarterback, played third base and point guard!” When asked if he fancied himself a type of Bo Jackson, Walsh laughed. “Sure, at the opposite end of the athletic scale.”

Walsh's inherent love of family spills over into his approach to coaching football. “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE MOVIE: “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE FOOTBALL MOVIE: “The Longest Yard” (2005) – “Because Justin Wood (his new wide-receiver coach and former Portland State player) was the stand in for Adam Sandler. Anytime there was a shot of a well-thrown ball or a shot of Adam Sandler getting hit, that was Justin.”

He also loves “Brian’s Song.” “It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen.”

FAVORITE SPORT: “Football.”

FAVORITE DRINK: “Diet Pepsi.”

HOW HE SPENDS A SUMMER: “On the golf course with my wife. She loves golf!”

FAVORITE THINGS ABOUT SAN LUIS OBISPO SO FAR: “The ocean and golf. I hear there are some really great golf courses in SLO County.”

It should be no surprise that the entire Walsh clan is athletic. Jody was a snow skier and competitive water skier. Luke, Sean and Casey all played basketball and football at high school, and Sean also wrestled. Megan played softball, basketball and volleyball at high school and currently plays softball for the University of San Diego.

Walsh played sports until he was 24. The former football, basketball and baseball player admits that by playing three sports your after you’re done, he didn’t give himself an opportunity to excel at one. “I was a quarterback, played third base and point guard!” When asked if he fancied himself a type of Bo Jackson, Walsh laughed. “Sure, at the opposite end of the athletic scale.”

Walsh's inherent love of family spills over into his approach to coaching football. “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE MOVIE: “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE FOOTBALL MOVIE: “The Longest Yard” (2005) – “Because Justin Wood (his new wide-receiver coach and former Portland State player) was the stand in for Adam Sandler. Anytime there was a shot of a well-thrown ball or a shot of Adam Sandler getting hit, that was Justin.”

He also loves “Brian’s Song.” “It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen.”

FAVORITE SPORT: “Football.”

FAVORITE DRINK: “Diet Pepsi.”

HOW HE SPENDS A SUMMER: “On the golf course with my wife. She loves golf!”

FAVORITE THINGS ABOUT SAN LUIS OBISPO SO FAR: “The ocean and golf. I hear there are some really great golf courses in SLO County.”

It should be no surprise that the entire Walsh clan is athletic. Jody was a snow skier and competitive water skier. Luke, Sean and Casey all played basketball and football at high school, and Sean also wrestled. Megan played softball, basketball and volleyball at high school and currently plays softball for the University of San Diego.

Walsh played sports until he was 24. The former football, basketball and baseball player admits that by playing three sports your after you’re done, he didn’t give himself an opportunity to excel at one. “I was a quarterback, played third base and point guard!” When asked if he fancied himself a type of Bo Jackson, Walsh laughed. “Sure, at the opposite end of the athletic scale.”

Walsh's inherent love of family spills over into his approach to coaching football. “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE MOVIE: “My kids would tell you every movie I've ever seen. But I think right now it's 'The Da Vinci Code.'”

FAVORITE FOOTBALL MOVIE: “The Longest Yard” (2005) – “Because Justin Wood (his new wide-receiver coach and former Portland State player) was the stand in for Adam Sandler. Anytime there was a shot of a well-thrown ball or a shot of Adam Sandler getting hit, that was Justin.”

He also loves “Brian’s Song.” “It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen. It’s a story about two players who are partners in the big screen.”

FAVORITE SPORT: “Football.”

FAVORITE DRINK: “Diet Pepsi.”

HOW HE SPENDS A SUMMER: “On the golf course with my wife. She loves golf!”

FAVORITE THINGS ABOUT SAN LUIS OBISPO SO FAR: “The ocean and golf. I hear there are some really great golf courses in SLO County.”
LAUNCH AND ASCEND

IT’S PERFECTLY NATURAL, even desirable, to be considered a Propeller Head. Just ask Dick Hartung and Paul Bonderson (EE ’75).

What sounds like a throwback to an earlier era is actually a great way to attract the best and brightest students to Cal Poly.

Hartung and Bonderson are two members of the Loyal Order of Propeller Heads, a group of College of Engineering supporters that has created a unique scholarship for engineering students to provide financial assistance, guidance, counsel and mentoring to the recipients during their time at Cal Poly.

“What is really special about this scholarship is the recipients’ opportunity to obtain guidance from successful engineering and business people,” said Hartung. Through the scholarship renewal process, students will be asked to prepare a written annual update describing academic progress, participation in extracurricular activities and future plans in the academic year.

Students will then give an oral presentation on their written report to a committee of Cal Poly faculty and Propeller Head donors. “We are trying to provide a well-rounded learning experience for the student, giving them a good balance of academic and professional progress,” said Bonderson.

Many of the 11 Propeller Head members are alumni. Each has pledged a minimum of $100,000 to the endowment over a period of 10 years, totaling a commitment of $1,100,000 to date.

The Propeller Heads are one of many examples of Cal Poly supporters coming together with a common goal. Another example is the Orfalea College of Business, which is already bringing together a more recent crop of graduates.

“Classes of the 1990s Scholarship and Matching Gift Initiative,” the new program by the Orfalea College of Business, aims to establish 10 new scholarships, one in honor of each graduating class of the 90s. The ultimate goal is to grow each endowment to exceed $100,000. Through proceeds from the Orfalea gift endowment, the college will match dollar-for-dollar the first $50,000 in contributions.

The program is well underway, with approximately 10 percent of its goal raised so far. “It’s important for our recent graduates to become involved. They represent our next generation of leadership for the college and for the new directions firms will take in California and in the nation,” said Dave Christy, dean of the Orfalea College of Business.

But you don’t have to be an alum to be an important supporter of Cal Poly. Current students are also discovering the power of private support.

The newly formed Student Philanthropy Council is the first organization of its kind in Cal Poly’s history, involving student leaders in philanthropic projects, educating students about the benefits of private support, and promoting an awareness and appreciation of philanthropy among students.

The council recently established a senior class gift for all graduates, with the simple goal of raising enough funds to purchase bike racks on the Cal Poly campus. “Bike racks are sustainable, green and a growing need on campus,” said council member and Cal Poly Foundation student representative Sarah Storelli.

According to Mike McCall, chief development officer for University Advancement, these three efforts are symbolic of the growing culture of private support at Cal Poly, spanning generations and disciplines. “It’s remarkable to see this synergy of philanthropy adding new value to the campus,” he said.

(Below, l-r) Members of the Student Philanthropy Council: Sarah Storelli, Hunter Glanz, Stephanie Liu, Jean Nguyen, Patricia Rosas, Brandon Styles
INGA SWEARINGEN STAYS IN TUNE WITH STUDENTS AND CAREER

BY SCOTT ROARK

HARMONY CAN BE IN MUSIC OR JUST A WAY OF LIFE.

Inga Swearingen (MU ’02) thrives on both, singing her distinctive style of vocal jazz to critical acclaim and international recognition. The San Luis Obispo native has performed multiple times on the live NPR broadcast “A Prairie Home Companion” with Garrison Keillor. She also has performed with internationally known pianist Art Lande and with the Leon Anderson Quartet at Carnegie Hall.

Swearingen discovered her love for singing early on. “I grew up on a street filled with kids, and our favorite pastime was putting on talent shows and musicals,” she recalls.

She declared a major in music after arriving at Cal Poly. Swearingen enjoyed the program’s balance of teaching and performing. She credits her voice teacher, Jackie Kreitzer, for being a strong influence in starting a performing career and enjoyed “the thrill” of being an assistant conductor for the University Singers with Tom Davies.

Now Swearingen is teaching music at Cuesta College, a few miles down the road from her alma mater. “I’ve found teaching to be very creative and rewarding, and I’m grateful to have the opportunity to share what I’ve learned so far,” she said. Swearingen has two self-produced albums under her belt. She is working on her third. The vocalist is constantly blurring the line between genres, drawing inspiration from every group she has been a part of, whether it’s vocal jazz or choral music. Other forms of music are waiting to be explored.

“I want to learn how to yodel,” Swearingen said with a smile. “No kidding.”

MUSI C TO O UR E ARS

MAKE A GIFT
TO CAL POLY AND RECEIVE INCOME FOR LIFE

A CHARITABLE GIFT ANNUITY
is an excellent way to increase your income, reduce your taxes and support the program of your choice at Cal Poly.

BENEFITS:
• Receive up to 9.5% depending on your age.
• Receive assured life income.
• Receive significant tax benefits.
• Designate your gift to a college or program of your choice.

FOR A PERSONALIZED CALCULATION, please contact:

PLANNED GIVING AND ENDOWMENTS
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

SAMPLE CHARITABLE GIFT ANNUITIES

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>3.7%</td>
</tr>
<tr>
<td>50</td>
<td>4.4%</td>
</tr>
<tr>
<td>60</td>
<td>5.0%</td>
</tr>
<tr>
<td>70</td>
<td>5.7%</td>
</tr>
<tr>
<td>80</td>
<td>7.1%</td>
</tr>
<tr>
<td>90+</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

IT’S YOUR LEGACY. EXPLORE IT.
Cal Poly horticulture and crop science students Daneille Ruais, Amanda Lemm and Beth Hall, along with instructor Melinda Lynch, snagged the only U.S. award at the 2009 Festival dei Fiori in Sanremo, Italy, with this flower display, "Medieval Myths and Tales."