THE BAKER ERA
31 YEARS IN SUPPORT OF LEARN BY DOING

ALSO INSIDE >>

PROFESSOR RETURNS FROM AFGHAN AMBASSADOR POST
ENGINEERING ALUMNI LAUNCH INTO SPACE
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Tribute to Cal Poly President Warren J. Baker
DEAR FRIENDS:
The challenge in editing Cal Poly Magazine is selecting which great stories to share with you. The sheer abundance of stories about the success of students, alumni, faculty and staff, is inspiring — but still, the editor has to decide which stories to live or die.
For this issue, it was easy to decide to highlight Warren Baker’s 31-year tenure as Cal Poly president. But deciding on which highlights could be packaged into the magazine? Well … not so easy.
So we sought presidential guidance, and as you might guess, we learned a few things.
For starters, it was “almost by accident” that Dr. Baker became a university president, let alone stayed for 31 years. In speaking with us recently, he recalled that he never thought academic administration would be his long-term career at all.
“I accidentally got into this at a relatively young age, when I tried out being a dean at a college of engineering,” Baker said.
“I really thought that I would not stay in the academic world. I have an engineering background, and I had worked with two or three corporations for starters, it was “almost by accident” that Dr. Baker became a university president, let alone stayed for 31 years. In speaking with us recently, he recalled that he never thought academic administration would be his long-term career at all.
“I accidentally got into this at a relatively young age, when I tried out being a dean at a college of engineering,” Baker said.
“I really thought that I would not stay in the academic world. I have an engineering background, and I had worked with two or three corporations along the way, Cal Poly became a truly comprehensive polytechnic university, renowned for its scientific and technical curriculum as well as for its distinctive offerings in business and the liberal arts.
Indeed, it was a fortunate accident for Cal Poly that Warren Baker found his way to San Luis Obispo — and stayed.
Now, as he is set to retire once a successor is identified and assumes office sometime in the next few months, we look back on a remarkable 31 years of Cal Poly’s growth.
— Matt Lassien, Editor

WORK BEGINS ON REC CENTER EXPANSION

CONSTRUCTION BEGAN during winter quarter on the renovation and expansion of the Cal Poly Recreation Center.
Students voted by an overwhelming 75 percent in February 2008 to increase the Student Union fee by $6 per quarter to fund the expansion project. However, the fee will not be implemented until the facility is complete.
Crews are renovating the men’s and women’s locker rooms, tripling the center’s overall exercise space and adding new components such as an indoor jogging track, a squash court, a multi-purpose activity gym, a leisure pool and deck and additional sand volleyball court.
The Recreation Center Expansion Project will use current LEED credits will be pursued and green building strategies will be incorporated into the project.
Work is expected to continue on the project until summer 2012. For more information, visit www.asi.calpoly.edu/ rec_center_project or call 805-756-2211.

WASC ACCREDITATION TEAM VISITS CAL POLY CAMPUS

CAL POLY HOSTED A VISITING TEAM from the Western Association of Schools and Colleges (WASC) Feb. 10-12. The team’s visit is part of the process of re-affirming the university’s accreditation, a review that happens every 10 years. The WASC team members are faculty and administrators from peer universities.
WASC accreditation is a means of ensuring the value of Cal Poly degrees and the university’s eligibility for federal funding.
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Cal Poly Student Housing EARNS GOLD CERTIFICATION

CAL POLY’S NEWLY COMPLETED student housing project, Polycanyon Village, has earned a LEED Gold certification for meeting required standards in sustainable building according to the U.S. Green Building Council.

Polycanyon Village received certification for meeting 42 of the required 39-51 points to earn the designation. Standards for the designation included low volatile organic compounds material, energy efficient buildings, reduction of water use, water-efficient landscaping, use of recycled content, 90 percent diversion from the landfill of construction waste, and more. Read the USGBC Report. Larry Kelley, Cal Poly’s vice president for Administration and Finance, said the LEED gold designation means 25 percent of Cal Poly’s facilities are now certified sustainable. “We are really pleased with the award,” Kelley said. “The project team, from initial planning to design and through construction, did a great job on this project. Cal Poly students are enjoying Polycanyon Village and value this new facility on campus.”


STUDENT PHILANTHROPY COUNCIL COORDINATES 2009 SENIOR GIFT

THE 2009 SENIOR GIFT – the first fundraising project by the Student Philanthropy Council – was unveiled last fall in the form of a new bike rack outside the Campus Market. The council was created a year and a half ago at the recommendation of the Cal Poly Foundation Board and is now an official ASI student club.

The mission of the council is to develop a culture of philanthropy among the student body, by educating students about the importance of giving back through private support. Students raised money for the bike rack through a variety of ways, such as sponsoring a booth at Open House in April.

The group is also traveling statewide to speak at Parent Philanthropy Council events. “We hope to let potential donors know how much we, the students, appreciate their funds and continual support,” said council president Sarah Storelli.

Cal Poly Receives Record Number of Applicants

CAL POLY RECEIVED A RECORD NUMBER of undergraduate applications for the 2010 fall quarter – a total of 40,904 applications, up 12.1 percent from 36,489 in 2008. Of the nearly 41,000 first-time freshmen who submitted applications, 4,744 were submitted as early decision applications, or applications for students who made Cal Poly their first choice. The early decision pool increased by more than 32 percent from last year, a sign of the increasing number of students considering Cal Poly as their first choice.

“The number of applications we received this year is a testament to the hard work of our academic departments in helping my unit build relationships with our prospective students and parents long before the application process ever begins,” said James Maraviglia, assistant vice president of Admissions, Recruitment and Financial Aid. “We are really pleased with the result, especially given the tough economy and state budget cuts to higher education.”

Cal Poly Architecture Student Receives National Recognition

Cal Poly Architecture student John Vierra won first place and took home $2,500 in the 2009 Bohemian Flats Boathouse Student Design Competition. The competition was sponsored by the American Institute of Architecture Students (AIAS) in conjunction with The Vinyl Institute.

Vierra, a senior in Cal Poly’s Architecture Department, won for his design “Boat on Board.” Judges noted the technical exploration, as well as the “ingenious way of dealing with the river’s ebb and flow.” It was considered one of the most respectful designs with regards to the site and the river.

This year’s competition focused on rewarding design excellence at a small-scale, highlighting the unique aspects of designing a boathouse and building knowledge about materials, products and assembly contributing to a sustainable and safe environment.

The competition site was The Bohemian Flats, a historic parcel of land on the bank of the Mississippi River in Minneapolis.

Vierra was also the first place winner of the 2008 AIAS Student Competition.

WHERE’S MUSTY? HOW WELL DO YOU KNOW THE CAL POLY CAMPUS?

Our little mascot Musty the Mustang wants to explore the campus soon. Send your responses to mlazier@calpoly.edu. Be very specific in your answer. The correct answer and the name of the first person who submitted it will be printed in this space in the next edition, along with Musty’s next photo.

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ASB staff member Brittany Tomasko was the first to guess the correct answer for our Winter 2009 edition. Musty was in the Natatorium across from Alex G. Spanos Stadium.
> MAKING BUILDINGS QuAKE-sAfE

Mechanical Engineering professor Saeed Niku developed the Flexible Fastener, which received a patent in 2005. The fastener looks like an ordinary nut-and-bolt combination. What sets it apart is a flexible shank that can be made from any strong yet pliable material such as Kevlar, nylon, steel cable or rope. The threads encircle the core material and are bonded to it at two ends, and a bolt head is added. The fastener holds items together and can be tightened, like a regular bolt. Unlike a regular bolt, though, the fastener can bend and move with whatever it is holding together. The ability to move laterally makes it ideal in construction and seismic retrofitting. It can connect non-parallel surfaces and can be used to repair products and structures with unaligned holes. It also can be used for earthquake retrofitting, to allow more lateral motion in quake-resistant building materials. The fastener also is ideal for use in medical applications, such as artificial knee replacement, in which bending is desired between body components while they remain attached.

> PURIFYING WATER

In the wake of Hurricane Katrina, Trygve Lundquist, a Civil and Environmental Engineering professor, and his students developed the idea of a lightweight water treatment system that could be easily distributed to and used by disaster survivors to treat available water regardless of its quality. Cal Poly received a patent on a Field Water Purification System in April 2009. The system is the brainchild of Lundquist, students Steve Barr and Dan Prost, and former grad student Tricia Compas, who worked on creating a tangible system as part of her graduate thesis. Their system includes a packet of PUR “Purifier of Water” that can treat 2.5 gallons of water, a cylindrical plastic water bag, backpack-like straps to transport the system, and a spigot to access the treated water. The beauty of the system is that the water is sealed off and stays clean.

The Clinton Global Initiative and the Walmart Foundation awarded Compas $14,500 for the invention. In addition, Cal Poly received $25,000 from the National Collegiate Innovators and Inventors Alliance to further develop usability and effectiveness and work on plans for manufacturing and a corporate infrastructure for the product.

“The U.S. Military is interested in testing the system for use in military disaster relief, ease of use and drinkability of treated water,” Dunning said.

> TRACKING PRODUCE

Tali Freed, a professor of Industrial and Manufacturing Engineering, developed the technology for a Radio Frequency Identification (RFID) tag that helps growers track food when it’s shipped to distributors. The RFID, for which Cal Poly received a patent in June 2009, is unique in that it can be hermetically sealed to remain intact long term on reusable plastic containers. Farmers produce a paper barcode tag that can be affixed over the RFID chip. The tag peels off during the tote sterilization process, and the RFID chip remains on the tote. After each use, a new tag is reprogrammed in the field to match assigned produce barcodes and is affixed over the RFID chip. The technology allows farmers to track shipments from field to store shelf. If a shipment is contaminated, the farmer can determine where contamination may have occurred to mitigate contamination of future shipments.

Dunning said he’s working to license the product to large-scale produce industry: “Retailers tell us they really like the idea and want growers to use the technology,” he said. “We’re trying to find a creative way to market this to some of our industry partners.”

Cal Poly Is KNOWN for having some of the brightest and most academically motivated students in the state and for its faculty’s commitment and dedication to student success. Not so widely known is that some of those faculty and students have invented tools with the potential to make a real difference in our world.

The California Central Coast Research Partnership – or C3RP – under the direction of the Research and Graduate Program Office, is Cal Poly’s home to these devices: Jim Dunning is the C3RP project administrator who works to market the patents held by the university. Cal Poly holds 11 patents with the U.S. Patent and Trademark Office. Among those inventions are a flexible fastener that could revolutionize seismic retrofitting and human joint replacement, a way to purify water in disaster areas, and a way to track produce from grower to shelf, to battle against contamination.
SOCIOLoGY PROfESSOR MALIHA ZULFACAR is back in the classroom at Cal Poly, fresh off a three-year stint as the ambassador to Germany for her native country, Afghanistan.

Zulfacar initially didn’t tell her students about her time as “madame ambassador.” She started the quarter the usual way: asking her students to guess where she’s from. Fluent in German, English and several Afghan dialects, her soft accent is apparently very hard to place.

“The level of physical destruction there is extremely disturbing,” she said. “What i am most concerned with is the cultural destruction of tall, modern buildings in Kabul. However, she said, living standards for rural villages or the urban poor remain largely unchanged.

Zulfacar is glad to have spent much of the past decade working to rebuild the country where she was born. But she is also glad to be back at Cal Poly after an extended sabbatical.

“I was really looking forward to my return to academia,” she beamed on a recent afternoon as students streamed in and out of her office.

“The world has become so interwoven due to technology that it really is a global village. I try to teach that a good engineer or a good architect is not just about making good designs. It’s about understanding who you are designing for, about understanding the people.”

For more about Professor Zulfacar:

A Life Relived: Professor Maliha Zulfacar Returns to Afghanistan
Cal Poly Magazine Article, Summer 2002

Maliha Zulfacar: Teaching What She Lives
Cal Poly Magazine Article, Summer 2006

Afghan Professor Releases Award-Winning Documentary on DVD

CAL POLY MAGAZINE 11
BY MARY McNALLY

THE MOTHER OF FOUR grown children, Lori Atwater had been successful as a union electrician, an information systems manager and self-employed technical consultant. But she traded it all in for dorm life and a meal plan.

At age 51, Atwater is a full-time resident of Poly Canyon Village, pursuing an engineering degree she abandoned 30 years earlier. At the time, as a young wife and mother, she thought that investing in her husband’s degree would be enough. But she yearned for something more.

GOING BACK TO GO GLOBAL
AT 51, LORI ATWATER IS EARNING AN ENGINEERING DEGREE SHE HOPES WILL HELP HER CHANGE THE WORLD

"You have to be true to your gifts," she said.

Since returning to school, she has gone global with Cal Poly’s learn-by-doing philosophy. Last year, she was part of a team that took a bicycle-powered water pump to Malawi to help villagers become self-sufficient. She said it’s important to design "for the planet" – places where the population doesn’t have technical training and where clean-rooms don’t exist. "That presents interesting design challenges."

"This really is the best time. I never would have gotten as much out of the experience as I’m getting right now."
WHEN CAL POLY ASKS ALUMNI to give back, they do, particularly when they’re asked to help students. One recent example is Mustang Mentoring Day.

Piloted as a partnership with the Cal Poly Alumni Association and the College of Engineering, nearly 100 students participated in Mustang Mentoring Day in November. Alumni were asked to volunteer and share with current students the things they have learned in the workforce.

Alumni and students were designated into groups for some team-building exercises and general conversation about careers, career preparation and questions about life after Cal Poly.

Students and alumni then rotated through one-on-one meetings to meet as many other individuals as possible within a short timeframe. After lunch, students were given more time to talk with those with whom they’d felt strong connections. Follow-up after the day was left to students. According to alumni feedback, students are keeping in touch.

The event drew alumni from all generations. One participant said it was the first time he had been back on campus since graduating. Most agreed to attend because they saw it as a great way to give back and help current students.

“Students are courteous and eager to learn,” one mentor said. “I enjoyed helping them and sharing my experience.”

Students who participated raved about how the experience allowed them to meet alumni and ask general work questions and queries related to specific programs and career paths.

Although the first Mustang Mentoring Day was targeted for engineers, participants from all colleges and majors were welcome. Plans are under way for more Mentoring days, so watch your e-mail for announcements.

**By Kim Gannon**

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FOR ALL THE CAL POLY STUDENTS who wished they could have spent just a little more time on the Cal Poly campus, President Warren J. Baker has lived their dream.

“Often asked what has kept me in this job for 31 years,” Baker told us recently. “It’s simple. It’s the joy that comes from being part of transforming lives. That’s fundamentally what we do at Cal Poly; we transform lives. We help academically motivated students become resourceful professionals, and what a privilege it has been to be part of that process for literally tens of thousands of students.”

“If I could, I would do it another 31 years.”

In preparing this special section, we had the pleasure of asking President Baker and his wife Carly Fitzsimmons-Baker to reflect on their 31 years of service to Cal Poly.

We also enjoyed combing through the archives to present some of the facts and figures that show just how remarkable President Baker’s tenure has been.

Here’s the number that impresses us the most—102,237. That’s the number of bachelor’s and master’s degrees awarded since Warren Baker became president of Cal Poly in 1979. That’s 102,237 lives transformed.

And next month we can add the Class of 2010.

— Matt Lazier, editor
CONVERSATION
WITH CAL POLY PRESIDENT WARREN BAKER

BY MATT LAZIER

Warren J. Baker became the eighth president in Cal Poly's history in August 1979. Three decades later, there has yet to be a ninth.

It has been three decades of remarkable growth for Cal Poly, during which time Baker has presided over the graduation of more than 100,000 students, overseen dramatic expansion and improvement of campus facilities to nurture learn-by-doing programs, and led the university as it gained a national reputation for excellence, reaping innumerable honors and recognitions, including an ongoing streak of 17 years as U.S. News & World Report's best public master's-level university in the west.

And Baker steered Cal Poly toward greater support from industry, alumni, and friends, leading what became a record-breaking $264 million Centennial Campaign.

What Baker says makes him most proud is that throughout his tenure, whatever the issue, he stayed focused on preserving and enriching the learn-by-doing educational model that is Cal Poly's beating heart.

As Baker prepares to retire, Cal Poly Magazine sat with him for a discussion of his time here and what he sees as the university's future challenges.

What first attracted you to Cal Poly in 1979?

It appeared to me that Cal Poly was a university in transition – expanding on its agricultural roots to become a true polytechnic campus, and with tremendous potential and the very realistic goal of becoming a nationally recognized polytechnic institution.

When you became the president, what were your first goals? How did you set about implementing them?

We needed more resources – more support for learn-by-doing, new programs and new buildings to support student success. But I wasn't sure how that was going to occur.

For the physical campus, we first looked primarily to the state. I spent a lot of time getting to know people in Sacramento and making our case with legislative leaders from places outside San Luis Obispo. Because we had so many students from other legislative districts, we were able to get those legislators to testify on behalf of Cal Poly. Success came quickly for us in the capital programs, and we've been able to continue that.

Later, we realized there was tremendous advantage in leveraging private funds to get state money for campus projects. We did it the other way as well, where state funds helped us leverage private money.

I knew we would succeed, but if you had told me that we would add close to $1 billion dollars in facilities over three decades, I would have said, "That's not possible." But when students, alumni, faculty, and staff pull together, almost anything is possible.

There also was opportunity for development of academic programs. We were growing, hiring new faculty. That presented opportunities to introduce new majors that fit the polytechnic mission and ensured that students would have a broad education preparing them to compete in scientific and technical fields and also be well versed in the humanities and social sciences. We've added 20 new undergraduate majors, 72 minors and 15 new master's degree programs over the years.

I believe that's helped make it possible for us to graduate so many resourceful professionals who go on to successfully enrich their professions and their communities.

What do you think has been your greatest success at Cal Poly, and why?

We've done well at maintaining the focus on the learn-by-doing education model and garnering the support to enhance the opportunities for our students around that philosophy: I think we've even better institution today than we were 30 years ago, and we have stayed true to the mission established by Cal Poly's founders in 1901.

When I first met Al Smith, he told about how the learn-by-doing education he received at Cal Poly influenced his life and his career. He wanted to explore with me how he might give something back to the university to help preserve learn-by-doing. Over the next few years we put in place a program that gave students and faculty an opportunity to use his wonderful 3,200-acre ranch, Swanton Pacific, to practice what they learned in the classroom. The experiment was very successful, and today Cal Poly owns Swanton Pacific Ranch, supported by a generous multi-million dollar endowment provided by Al Smith. His dream lives on.

Leon Panetta
CIA director and former 16th Congressional District representative

"Warren Baker has demonstrated both courage and wisdom in his leadership and has stayed true to his principles. He has provided a steady hand and needed stability for Cal Poly during dire times of budgetary turmoil, resulting in consistent and far-sighted improvements in both curriculum and facilities. His achievements have positively impacted the lives of thousands of students in California and across the nation."
In recent years, our learn-by-doing model has been enriched with greater emphasis on project-based learning. Projects that engage teams of students, faculty and advisers from outside the university add a terrific dimension to learn-by-doing. Paul Bonderson, who credits his success as an entrepreneur to the hands-on education he received at Cal Poly, saw the importance of on-campus facilities to support project-based learning. He created the magnificent Bonderson Projects Center on campus and gave it to the university.

The learn-by-doing focus gave us direction in every initiative, whether it was raising money for facilities, putting together a capital campaign and a structure to raise private funds, or seeking support from the legislature for the polytechnic mission.

WHAT ARE THE BIGGEST CHALLENGES FACING CAL POLY RIGHT NOW?

In many ways the challenges are similar to what I faced when I became president: how to preserve and enrich the quality of our learn-by-doing and project-based education. Bluntly, how do you pay for it?

The world and the problems we face are increasingly complex, and California’s industries need resourceful professionals who can address problems in a strategic, whole-system way. That’s the kind of leadership we are successful at educating. But to educate people across multiple disciplines requires new ways of teaching and learning that extend our basic model of learning-by-doing. Certainly we have opportunities today to use technology to make us more efficient. However, to sustain and enhance the quality of a Cal Poly education the university will have to continue to seek more support from sources other than the state.

Bears in mind that 30 years ago, the state paid 90 percent of the cost of educating a student. Today at Cal Poly, the state provides 50 percent. Students, their parents, and private support make up the difference.

Because of our polytechnic mission, Cal Poly has an even more difficult challenge. We have the highest proportion of higher-cost programs of any CSU campus. To maintain our learn-by-doing focus, it’s a fact of life that it costs more to educate students in agriculture, architecture, engineering and science than it does in the liberal arts. Yet Cal Poly’s per-student funding is at the average of all the CSU campuses. Meanwhile, the state has steadily reduced its support for public higher education.

We have to continue to make our case for state support. We need to continue to grow our private support. And we need to continue to nurture the relationships and partnerships we have with the students that support the Cal Poly Plan.

Going forward, the Cal Poly Plan – the willingness of students and their parents to pay for the exceptional quality that our learn-by-doing philosophy provides – will allow Cal Poly to provide a level of independence from the natural tendency of large bureaucratic systems to standardize the way in which campuses operate. There are both advantages and disadvantages to being in a large system. Cal Poly will need to continue to navigate through these, and a strong partnership with the students, alumni and faculty is essential to success.

Today Cal Poly is one of the best values in the nation. As I see the competing demands for tax dollars in California and look to the future, it’s clear Cal Poly will need to be successful at raising private support for endowments that will match the commitments of our students.

THIRTY-ONE YEARS IS A LONG TIME ON ANY JOB. WHAT KEPT YOU MOTIVATED IN THIS ONE?

It never became routine. There were always new challenges, new things to accomplish. The university has been growing, which presented exciting opportunities and created an immense appeal. The students, faculty, staff, deans and administration were all growing and learning together.

And the campus is a very cooperative place to work. From the beginning, it was easy to engage the faculty, staff and students with a focused mission and a set of goals for the institution. Clearly we have had instances of differences of opinion in 31 years. But the campus is one that really works together. People are engaged, and their views are heard.

HOW WOULD YOU LIKE YOUR TIME AT THE HELM OF CAL POLY TO BE REMEMBERED?

As being open and cooperative – that I helped create a spirit of cooperation on the campus and that we were able to work together to get things done. When we wanted to achieve something, we could overcome the barriers and do it.

I also hope I’m remembered for doing what I could to help gain the resources and support necessary to help students and faculty achieve their aspirations. I think of the president as more of a servant and facilitator role. It’s a very simple thing we do here: We put good faculty together with good students, and good things happen. My role has been to try to support that.

REPUBLICAN KEVIN MCCARTHY

U.S. 22nd Congressional District

“Warren Baker’s leadership has been a key reason Cal Poly has earned an excellent reputation nationally. President Baker has been relentless in his focus on urging students and faculty to search for practical solutions to real-world problems. As a result, Cal Poly is a pre-eminent provider of the resourceful professionals that we need to keep California and America competitive in such fields as agriculture, engineering and architecture.”

REP. LOIS CAPPS

U.S. 23rd Congressional District

“President Warren Baker has been an exceptional leader for Cal Poly and our community over the past three decades. I have watched with admiration as President Baker has guided the university to national recognition as an institution of higher learning and excellence. His tireless efforts have helped the university grow and become an invaluable source of innovative and well-rounded graduates that are vital to the future of California’s most important industries. It has been a pleasure working with him and his talented staff over the years, and I know he will be sorely missed by the entire Cal Poly family.”

April 30, 1990

In the wake of a weekend of unrest near campus, Baker suspends Poly Royal, Cal Poly's 58-year-old open house showcase.

Fall quarter 1990

Second public citation to 17,756 white male freshmen applications (up from 8,000 in 1984 to 14,800).

Nov. 21, 1991

Cal Poly students vote to increase their fees in order to expand athletics at the university and move Cal Poly's Men's Varsity Hockey into the NCAA Division I.

1992

Construction is completed on the new Business Building and a separate Business Education Building.

1993

Kartume Al Shem, founder of Oakham Supply Hardware, donates three 2,500-acre Seaworld Pacific Ranch in Tempe, Arizona to Cal Poly, along with $12 million for an endowment/renovation of the Education Building.

Oct. 4, 1993

U.S. News & World Report ranks Cal Poly as the best public-college university in the west in its annual ranking of the highest quality institutions.

1994

Endowment to support hands-on education is transferred to the university.

October 1994

The Athletics Program moves to Division I competition.

April 1996

At the initiative of student leaders, following the 1996 suspension of Poly Royal, Cal Poly relaunches its annual spring showcase event as Open House and the Poly Royal Rodeo.

July 10, 1996

CSU Trustees endorse the Cal Poly Plan and subsequently approves implementation of a special Cal Poly academic fee in support of the plan.

September 1996

The Performing Arts Center’s Christopher Cohan Center hosts its grand opening performance festival.

1997

Advanced Technologies Laboratories

1998

The College of Engineering opens its Advanced Technologies Laboratories building, the first building on campus constructed without state funding.

1999

1998
CARLY FITZSIMONS BAKER HAS HAN MORE HATS IN 31 YEARS AT CAL POLY

AMBASSADOR, SCHOLAR, MOTHER, SUPPORTER

CARLY FITZSIMONS BAKER

BY MATT LAZIER

IMMEDIATE NEED
Baker remembers when she and her family arrived on campus in August 1979. She was raising four children, ages 3 to 16 and was suddenly thrust into the role of campus ambassador.

“We immediately had all the initial meet-and-greet events, as well as the regular fall events that happen when school starts up every year,” she said. “I really had to work to get things in shape.”

Warren Baker said he had an immediate and pressing need for his wife’s support as he assumed the Cal Poly presidency.

“When we came here, we made it a priority to ensure that members of the Central Coast community felt welcome on campus,” he said. “What Carly worked hard to do was to find some early opportunities to connect with the community!”

CAMPUS TUTelage

March 8, 2001
Cal Poly celebrates “Hilltop Day”, one of a series of events in 2001-02 marking the university’s centennial.

April 21, 2001
Cal Poly, launches its Centennial Campaign, which will raise a CSU-record $264 million by 2005.

May 28, 2001
CSU has approved a major revision of the Cal Poly campus Master Plan, authorizing growth in campus enrollment and expansion of facilities, with emphasis on growth in the university’s polytechnic areas.

2000

The 47-acre Sports Complex is completed.

Fall quarter 2000
Enrollment is 16,877, applications jump again to 29,816.

Fall quarter 2000
Katherine Baker donates $15 million to the university, leading to the naming of the Katherine College of Business.

2006

Unocal donates its 3,200-foot pier at Avila Beach to Cal Poly, football players, the team manager and a barn-blower salvaged in a 1983 plane crash.

2006

The Saugus Memorial Plaza is dedicated on a $425,000 gift from Cal Poly football players, the team manager and a barn-blower salvaged in a 1983 plane crash.

The Architecture Department receives a $500 million bequest from an anonymous donor, largest single gift ever made to a CSU campus.

2007

The Architecture Department receives a $500 million bequest from an anonymous donor.

Fall 2009 quarter
Cal Poly’s student enrollment is 39,322.

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6 – Number of U.S. Presidents occupying the White House since Warren Baker assumed the Cal Poly presidency in 1978.

102,237 – Total number of bachelor’s and master’s degrees Cal Poly has awarded since Baker assumed presidency (excluding the upcoming Class of 2010).

17 – Number of consecutive years (including 2009-10) that U.S. News & World Report has rated Cal Poly as the best public master's university in the West.

1 – Current ranking of Cal Poly's endowment among the CSU's 23 campuses ($131 million in 2009).

14,684 – Cal Poly's student enrollment in Fall 1979, when Baker took the helm.

19,325 – Cal Poly's student enrollment Fall 2009.

8,799 – Number of applicants to Cal Poly in Fall 2010, competing for about 3,900 spaces.

41,000 – Approximate number of applicants to Cal Poly in Fall 2010, competing for about 3,900 spaces.

3,911 – Average grade-point average for first-time Cal Poly freshmen for fall 2010.

74 – Percentage of the 3,011 Cal Poly students who enrolled in 2003 and who graduated within six years — a record high for Cal Poly and the best graduation rate in the California State University System.

89 – Percentage of 2007-08 grad who were employed full time or enrolled in graduate school one year of graduating from Cal Poly.

3,200 – Number of acres in the Sweatman Pacific Ranch, near Santa Cruz, which alumnus Al Smith bequeathed to Cal Poly in 1993 bringing Cal Poly’s total land holdings to 9,678 acres.

46 – Number of new buildings/facilities added to campus during Baker’s tenure, including construction projects now under way.

20 – Number of new majors introduced for undergraduates during Baker’s tenure.

68 – Number of bachelor's degree programs offered at Cal Poly as of 2010.

15 – Number of new master’s degree programs introduced during Baker’s tenure.

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BY THE NUMBERS

THE WARREN BAKER ERA

GARY BLOOM
CEO of eMeter Inc. and past chairman of the Cal Poly Foundation Board

"Cal Poly receives very generous support from students, parents and alumni, as well as the university’s many industry partners, because they know that Cal Poly is delivering a student experience that builds confident, resourceful professionals and, ultimately, innovative leaders in their field. President Baker’s tireless work over the years has been to make sure the student experience is challenging and relevant to what will be expected of students when they begin their professional careers."

> ENGINEERING ALUM MOVES THE EARTH CLOSER TO PRIVATE SPACE FLIGHTS

BRITISH MILLIONAIRE RICHARD BRANSON and alumna and aviation pioneer Burt Rutan (B.S., Aero Engineering, 1965) are taking deposits for space flight tickets on their Virgin Galactic spacecraft. In January, they unveiled their new rocket, dubbed SpaceShipTwo, and its carrier aircraft, VMS Eve, at an airport in the Mojave Desert. Instead of trying to launch a rocket directly into space, plans call for the carrier craft to lift SpaceShipTwo to an altitude of 50,000 feet. At that point, SpaceShipTwo – carrying six paying passengers and two pilots – would separate and blast off to about 325,000 feet, or 60 miles, above the Earth’s surface. At that altitude, passengers experience weightlessness and see the curve of the Earth. Ticket price: $200,000.

> ANIMAL SCIENCE ALUM IS PRESIDENT OF THE CALIFORNIA FARM BUREAU FOUNDATION

Modesto-area almond and walnut grower Paul Wenger (B.S., Animal Science, 1979) was elected president of the California Farm Bureau Federation in December. Wenger, 54, a third-generation family farmer, will assume the role of spokesman for the organization on a wide range of issues of interest to farmers around the state, including access to water and economic pressures.

> ENGLISH ALUMNA WRITES CRITICALLY ACCLAIMED BIOGRAPHY OF RAYMOND CARVER

Cal Poly alumna Carol Sklenica (English, 1971) has written a critically acclaimed biography, “Raymond Carver” Scrivener published the book in November. The book is Sklenica’s portrait of the iconic short-story writer. It was hailed as one of the top 10 books of 2009 in the New York Times Book Review.

> BUSINESS ALUM TRAVES MAJOR LEAGUE BASEBALL POSSIBILITIES FOR THE PRESTHROOD

Alum and former Mustang Baseball standout Grant Desme (Business Administration, 2008) made headlines in February by making a major career change: springing out of pro baseball to enter the priesthood. Desme walked away from the Oakland Athletics minor league team to become a Catholic priest.

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> BIOLOGY ALUMNA HELPS IN HAITI

Recent Cal Poly graduate Heidi Swangler (B.S., Biological Science, 2009) headed to Haiti in February on a medical mission in Port-au-Prince. Swangler, of Atascadero, assisted physicians from Oregon in a makeshift clinic beside a collapsed hospital. A volunteer with Virgin Islands nonprofit Haiti Community Support, Swangler held the hands of toddlers receiving stitches, created mixtures of sugar and salt to combat infant dehydration, and more.

> VIT ALUMS’ PALATE-CLEANING BEVERAGE MENTIONED IN WALL STREET JOURNAL

What's the best way to cleanse the palate between wine tastings? It was a senior project question, and now it's a drink called Santásti. And it was mentioned in February in a Wall Street Journal story on consumer wine tasting events and studies. Grad Andrew Macaluso (B.S., Wine & Viticulture, 2008) and business partner Nicole Chamberlain (B.S., Wine & Viticulture, 2008) are producing and marketing the drink in wine stores and tasting rooms.

> AG BUSINESS ALUM IS NAMED KERN CATTLEMAN OF THE YEAR

The Kern County Cattlewomen’s Association and the Kern County Cattlemen’s Association honored Jay Hershey III (B.S., Ag Business, 1968) for his contributions toward advancing the beef industry’s interests. Hershey, 64, and his wife own Rivermeare Ranches at Deer Creek, an assortment of range ground in Edison and parts of Tulare County that they lease to Rube Cattle Co. Hershey has enjoyed a 25-year career as a commercial loan officer, followed by several more years as a financial adviser. He worked his family’s ranch nights and weekends.

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 WHEN A YOUNG RORY COOPER (EE ’85, Master’s in EE ’86) arrived at Cal Poly in a wheelchair, paralyzed from a cycling accident, his professors saw an engineering challenge. Nearly a decade before the passage of the Americans with Disabilities Act, Electrical Engineering Professor Saul Goldberg and his colleagues modified the lab benches and classroom materials for Cooper, allowing him to fully participate in the curriculum. The result: an accomplished scholar, award-winning athlete, author and lecturer with an international audience, and a professional career that has impacted thousands of wounded veterans.

Cooper has never forgotten it. “That was the best part of my education at Cal Poly—Professor Goldberg fully embraced the notion of ‘adapting the environment’ and working accordingly,” he recalled.

Cooper was just 20 when he was hit by a truck while cycling. The accident happened in Germany, where he was stationed in the U.S. Army. His spinal cord was severely injured, leaving him paralyzed from the waist down. “The most challenging part of the recovery process was adapting to a new perception of myself—it takes longer to adapt emotionally,” Cooper said. “The goal of my education at Cal Poly and athletics kept me going.”

Cooper started with wheelchair basketball at Cal Poly, then moved on to wheelchair racing, building the racing chairs himself in the labs of the College of Engineering and his parents’ automotive machine shop. State and national competitions followed.

In 1987, Cooper set a world record in the 10,000-meter wheelchair racing event. A year later came the 1988 Paralympic Games in Seoul, Korea, where he won a bronze medal. He has five gold medals from the 2010 National Veterans Wheelchair Games, winning medals each year since competing beginning 1983.

Cooper is still active with Paralympics. In 2008, he served as an advisor for the U.S. Paralympic Team. And you may have seen him last year while you were eating breakfast; he was featured on a Cheerios cereal box in recognition for his achievements.

Congressman John Murtha called Cooper “an inspiration.” And Cooper’s journey started at Cal Poly: studying in the labs, organizing wheelchair racing events on campus, working on the Rose Float and the Human Powered Vehicle.

A San Luis Obispo native, Cooper misses his hometown and the university nestled against its mountains. He had a chance to visit recently, though, when he served as the guest of honor and speaker for the 2010 Electrical Engineering Department Banquet on May 14.

“It’s a spectacular learning environment; it really is a special place,” he said. “It supported me when I strove to be forward-thinking and move on with my life.”
Q: WHAT DO YOU DO ON THE JOB AT FACEBOOK?
A: A typical day involves meeting with key strategic partners to discuss collaboration opportunities, working with internal team members to evaluate partnership concepts and ensuring existing partnerships are running smoothly. Some of the best parts of my job involve meeting with great new startups building on Facebook Platform and working closely with Facebook’s incredible product development teams to understand their plans for the coming months.

Q: WHAT DO YOU LIKE BEST ABOUT YOUR JOB?
A: It is tough, but nothing is as rewarding as working through super complex product, business and customer issues to find solutions to very difficult problems. I really love working closely with the great people from Facebook and our strategic partners.

Q: WHAT DID YOU DO BEFORE YOU JOINED FACEBOOK?
A: I ran my own startup, worked at a venture capital firm as an entrepreneur in residence and helped develop early versions of Bing.com for Microsoft.

Q: WHAT'S YOUR ADVICE TO SOMEONE WHO IS NOT IN A SOCIAL NETWORK ON WHY THEY SHOULD JOIN ONE?
A: Try it – you'll find you probably like and benefit from it. You can always remove your account if you don't.

Q: YOU HAVE MORE THAN 500 PERSONAL CONNECTIONS AND FRIENDS ON YOUR SOCIAL NETWORKS. HOW DO YOU MANAGE YOUR CONNECTIONS AND FRIENDS?
A: I generally only accept connections from people I have met in person. From there I use the privacy tools that Facebook has built into the experience. They enable me to manage how I share information with my different types of connections.

Q: WHAT'S YOUR ADVICE ON USING A WEB SOCIAL NETWORK TO HELP YOUR CAREER?
A: Make sure to keep work history, personal projects and contact information up to date on your social network profile(s). Follow the golden rule and try to help people by facilitating introductions or following up with why you are not able to help. When you are looking for your next opportunity, always find a direct connection to a company you want to work for instead of relying on an online form to submit your resume. And stay connected with recruiters as a passive job seeker; you never know when the perfect opportunity might come knocking.

Q: SHOULD ALUMNI BELONG TO MORE THAN ONE SOCIAL NETWORK?
A: Facebook is designed to be a broad service, helping people connect with all those who matter in their life. When people have more specific needs — say, professional or job networking — they should also consider some of the networks designed for those specific purposes.

Q: WHAT SHOULD YOU PUT ON YOUR SOCIAL NETWORKING PROFILE?
A: What you post represents you. So the best advice I can offer is: Be thoughtful about what you say and who you are sharing it with, just like we all do in person. I tend to share interesting links I find and photos from my cell phone, and I ask for recommendations via status updates. Other folks I am connected with write long notes, share their gaming scores or write funny pithy status updates.

NEEL "BUBBA" MURARKA (B.S., Computer Science, 2000, M.S., Computer Science, 2003) has friends in high places — lots of them. At Cal Poly, he was the student representative on the California State University Board of Trustees and a board member for Associated Students Inc. Now, Murarka is a Business Development Manager at Facebook, the Web's mushrooming social network with more than 400 million active users around the world.

Alumni can connect on Facebook at www.facebook.com/calpoly. Parents and current students on Facebook can connect with Cal Poly at www.facebook.com/california.polytech. Fan those pages and help Cal Poly top rival schools’ numbers.

Q: HOW DID YOUR CAL POLY DEGREE PREPARE YOU FOR YOUR CAREER?
A: In too many ways to count, but things that jump to mind include great technical understanding, confidence to work with anyone, and a willingness to jump in head first to solve problems.

Q: WHAT WAS THE BEST CLASS YOU TOOK AT CAL POLY?
A: Operating Systems II my senior year, where I built a network MP3 player with two lab partners in lieu of taking the final. It was so much fun to do something that hands-on and complicated.

Q: WHO WAS YOUR FAVORITE PROFESSOR AT CAL POLY — AND WHY?
A: I could spend days listing the names all of the professors and staff members who helped make me who I am. One person who was really impactful and who I continue to get great mentorship from is Dr. Baker. I'll miss seeing him around campus when I visit, and I hope he enjoys his well-earned retirement.
Chances are you’ve watched science fiction movies with astronauts flying spaceships from Earth, living on space stations and admiring the view of our planet.

That science fiction is now science fact, as Greg Chamitoff (EE ’84) and Rick Sturckow (ME ’84) can both personally attest. The two astronauts have been among NASA’s stars recently. And new adventures are on the horizon, with both involved in the final missions of the historic space shuttle program.

Chamitoff, who lived on the International Space Station (ISS) for nearly six months in 2008, is now going back, scheduled to launch on shuttle mission STS-134 this July to deliver an Alpha Magnetic Spectrometer (AMS). The AMS is a $2 billion physics experiment built by 15 countries to examine fundamental issues about matter and the origin and structure of the universe. The shuttle mission will also deliver micro-meteorite shields and spare parts for Dexter, a robot on the outside of the station that acts as the “hand and fingers” for routine exterior maintenance.

Chamitoff will not stay on the ISS during this mission. However, he will perform his first spacewalk outside the station, an experience he calls “a lifelong dream.” He will return to Earth after 10 days. The flight is one of the last in the shuttle program, scheduled to be decommissioned this year. Russian Soyuz rockets will be the primary mode of transportation for all trips to the ISS after the shuttle program is shut down.

The Montreal native was selected to become an astronaut in 1998 and qualified for his flight assignment as mission specialist in 2000. As an undergraduate student at Cal Poly, Chamitoff taught lab courses in circuit design and worked summer internships at Atari Computers and IBM.

Meanwhile, Sturckow has been the commander and pilot of four shuttle missions — the most recent last year aboard the shuttle Discovery on a supply mission that delivered, among other things, a treadmill to the ISS that was named after popular television comedian Stephen Colbert.

Sturckow’s first journey into the heavens was a historic mission in 1998, behind the throttle of Space Shuttle Endeavour. The shuttle was carrying the first two modules of the international Space Station, later joined together in orbit. Each circular module is 45 feet in length, 15 feet in diameter with windows to admire the view. Additional modules were later connected during subsequent missions. Solar panels provide power. A crew has permanently manned the station since 2000.

Sturckow is still playing an active role at NASA, now serving as a CAPCOM, or capsule communicator, for Mission Control. He acts as the “voice” for the flight control team on the ground when talking to an onboard crew.

The Lakeside, Calif., native came to Cal Poly because of off-road racing, competing in professional off-road races in Arizona, Nevada, and Baja California and gaining experience in leadership and project management. He joined the Marines after graduating, serving as an F/A-18 test pilot before he became an astronaut.

Chamitoff and Sturckow are two of the three Cal Poly alums who have soared into the heavens. Robert “Hoot” Gibson (AERO ’69) flew on five space shuttle missions between 1984 and 1995, the last one as commander on the first shuttle mission to dock with Mir, the Russian Space Station. Gibson retired from NASA in 1996.
PHILANTHROPY

MAKING YOUR DOLLARS MAKE SENSE

STATE PLANNING CAN BE TAXING

BY WARREN SINSHEIMER

Despite the tax hit, investors are taking a close look at this opportunity. Before acting, though, it’s a good idea to take a comprehensive review of long-term goals. For those who want to remember Cal Poly in their estate plans, it might actually be more tax efficient to name Cal Poly as a beneficiary of the existing IRA (or a proportion of it), rather than convert it to a Roth and incur the tax liability.

For those who have a longer horizon before retirement, there may be a bigger benefit to the conversion. If so, there are giving vehicles that help offset the tax liability. For instance, a Charitable Gift Annuity may provide some immediate tax savings, as well as tax-advantaged retirement income and ongoing support for Cal Poly.

This confluence of factors presents an unusual opportunity to confer with your financial advisers and the planned giving professionals at Cal Poly to determine an optimal strategy for your particular situation.

The good news is that combining estate planning with proactive financial management can help defray current tax liabilities.

One of the significant changes in tax law relates to Roth IRAs. Contributions are made with after-tax funds, so after five years and a minimum age of 59½, investors can withdraw both the capital and appreciated assets tax-free.

This year, and possibly only this year, Congress eliminated income ceilings that prevented people with higher incomes from participating. Through the end of the year at least, any investor can convert a traditional IRA to a Roth IRA.

The downside of converting an existing IRA is that the investor will have to pay regular income tax on the amount being converted. That can be a costly undertaking for anyone, especially those in higher tax brackets.

For simple language you can share with your tax adviser, visit: www.plannedgiving.calpoly.edu or contact one of our professionals at:

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

IT’S YOUR LEGACY. EXPLORE IT.
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.

“JUNGLE CUTS,” the float built by students and volunteers from Cal Poly San Luis Obispo and the university’s sister campus in Pomona, captured two awards at the 2010 Tournament of Roses Parade, held Jan. 1 in Pasadena, Calif. Parade judges honored the float with the Bob Hope Humor Trophy the day of the parade. And on Jan. 2, the Tournament of Roses and KTLA TV in Los Angeles announced that the Cal Poly creation had once again captured the annual Viewers Choice Award. The Cal Poly float also won the inaugural Viewers Choice Award in 2009.

The Jungle Cuts concept took a classic barbershop scene and set it in the jungle. The design by Andrea Swanson and Rick Slover of Thomas Baak and Associates, LLP played off the 2010 Tournament of Roses parade theme, “A Cut Above the Rest.”