

The Warren J. Baker Center for Science and Mathematics was dedicated Nov. 1.

PHOTO BY BRITTANY APP



## Cal Poly Dedicates Baker Center for Science & Mathematics

Although students have been putting the facility to good use since the start of fall quarter, Cal Poly officially dedicated the new \$119 million, 189,000-square-foot Warren J. Baker Center for Science & Mathematics at a ceremony Nov. 1.

"Every Cal Poly student will take at least one course in this building. Many will take quite a few more," said College of Science and Mathematics Dean Phil Bailey, who was a driving force behind the creation of the facility. "This is your building!" he added, calling out to students from each of the university's six colleges.

Named for President Emeritus Warren J. Baker, under whose leadership the project was originally commissioned, the center has been in the works in some form for 20 years. Construction began in 2010.

President Jeffrey D. Armstrong

described how essential the new facility is to the university's mission. "This building was designed with particular attention to serve our core educational philosophy – Learn by Doing," he said. "In the Baker Center, Learn by Doing opportunities abound: students grapple with real-world problems, they immerse themselves in hands-on research, and they collaborate in leading-edge labs and study spaces."

For many of the supporters who contributed to the building project, the ceremony was the first opportunity to experience the fruits of their generosity.

"I would love to learn there, and I'm sure students will too," said Rob Rossi (B.S., Architecture, 1975), an early donor to the campaign for the new building. "I'm a long time supporter of Dr. Baker and his goal of integrating science and

math onto the campus. The building really epitomizes that."

Fourth-year liberal studies student Ashlee Evonc expressed gratitude to all those who made the new facility possible. "Donors and supporters like you make our learning experience one we will never forget," she said.

In his remarks, Baker acknowledged the challenges, triumphs and collaborators involved in developing of building, before reflecting on his role in the Cal Poly legacy. "This building, and the buildings that bear the names of President Robert E. Kennedy and President Julian McPhee, all have something in common — they have lots of room for students to learn cooperatively," he said. "I'm very proud and humbled to be a part of the magnificent history of Cal Poly." —*Larry Peña*



## Cal Poly Ranked Best In the West by U.S. News for 21st Consecutive Year

Cal Poly has been rated the best public-master's university in the West in the U.S. News and World Report's 2014 America's Best Colleges guidebook — the 21st consecutive year the university has earned the label. Cal Poly ranked ninth in the magazine's overall list of the West's best universities, including both public and private institutions that provide "a full range of undergraduate and master's-level programs but few, if any, doctoral programs."

"Cal Poly's excellence is deep and enduring, as shown by our continued success in this prestigious ranking," said President Jeffrey D. Armstrong. "This honor belongs to our dedicated faculty and staff members, who provide the backbone of the Learn by Doing experience. And it belongs to our loyal alumni, whose generous support enriches the educational experience that transforms our students into the innovative leaders and resourceful professionals who can help solve society's most difficult challenges."

Cal Poly's College of Engineering was named the fourth best public-master's engineering program in the country, behind the U.S. Military Academy, U.S. Air Force Academy and the U.S. Naval Academy. —*Matt Lazier*

## Engineering Students Float Ideas in Reduced Gravity Aircraft

A team of five Cal Poly Engineering students conducted hands-on experiments in near-zero gravity this summer as part of NASA's Reduced Gravity Education Flight Program at Johnson Space Center in Houston. The undergraduate Cal Poly team was one of just six in the nation selected to conduct experiments related to current NASA research.

The near-weightless environment was achieved aboard NASA's G-Force One, a modified 727 Boeing airliner nicknamed the "Weightless Wonder." The microgravity aircraft produces periods of weightlessness lasting up to 25 seconds when

it is put through a series of extreme parabolic maneuvers in an unpopulated area over the Gulf of Mexico.

The Cal Poly experiment demonstrated the ability of a free-floating system to locate a point of interest and track it autonomously in real time for an extended period. The work contributes to technology currently in development by NASA to allow spacecraft to make unmanned landings on remote, rough-terrain surfaces, such as the moon or Mars.

Cal Poly team members included Christian Hume, a fourth-year electrical engineering major; Brandon Bussjaeger, a fourth-year computer science major; Sara Lillard, an aerospace engineering senior; and Jenna Becker and Bodin Rojanachaichanin, both mechanical engineering seniors. —*Amy Hewes*



Cal Poly Engineering students experience zero gravity through a NASA research program. **COURTESY PHOTO**



### Wine & Viticulture Program Elevated to Department Status

Cal Poly's College of Food, Agriculture & Environmental Sciences (CAFES) announced that its popular Wine & Viticulture Program has become an official department. The designation reflects the rapid growth of the program. With 250 students, Cal Poly's Wine & Viticulture Department is the largest of its kind in the nation and has enrolled more than 90 new students this year.

"This is a reflection of the popularity of our program, our outstanding climate for producing high-end wines, and the fact that we are the only university to offer a comprehensive program covering enology, viticulture and wine business," said Wine & Viticulture Depart-

ment Head Jim Cooper.

Cal Poly's program is the only one of its kind to offer an integrated educational program that focuses on three concentration areas: enology, viticulture and wine business. All students in the department conduct hands-on work in vineyards and wineries, where they produce a number of wine varietals. In addition, all students participate in paid internships at renowned domestic and international wineries. —Chris Murphy

### Philosophy Professor Receives NSF Grant for Cyberwarfare Project

Cal Poly Philosophy Professor Patrick Lin received a grant of nearly \$500,000 from the National Science Foundation (NSF) for "Safeguarding Cyberspace

*Cyberwarfare challenges standard existing legal frameworks governing armed conflict, including the assumption that war must require kinetic or physical attacks.*

with Ethical Rules for Cyberwarfare," a collaborative project with the Naval Postgraduate School and Western Michigan University. Lin and his team seek to address the ethics of cyberwarfare. Though there is a growing amount of literature on cyberspace technology and strategy, Lin noted there is a need to study the ethics of cyberwarfare to guide law and policy.

Cyberwarfare challenges standard existing legal frameworks governing armed conflict, including the assumption that war must require kinetic or physical attacks. Because military assets are difficult to penetrate, cyberwarfare has great potential to be directed at civilian infrastructure.

"Clear international law and policy can help limit the impact of cyberwar on civilians and safeguard cyberspace itself," Lin said. The project will aim to discover how cyberwarfare conforms, or can be made to conform, to war principles such as discrimination and deception.

Lin is director of the Ethics + Emerging Sciences Group at Cal Poly and is the author of books, articles and presentations on cyberspace, robotics and related topics. —Katie VanMeter



Students hard at work at the Cal Poly Winery. PHOTO BY CHRIS LESCHINSKY



## Cal Poly Earns High Rankings for Grad Salaries

Cal Poly ranked 58th out of 1,016 colleges and universities nationwide in a September report by the website Payscale.com. The site evaluates schools based on graduates' earning potential. Cal Poly also ranked 12th on the list of all public schools and 9th out of 96 schools on the West Coast.

In the first year that Payscale.com broke rankings down further by major, Cal Poly also earned high marks for graduates in computer science, biology and business.

The rankings are based on mid-career median salary data collected from 1.4 million employees who have bachelor's degrees but no higher degree.

"These rankings are a reflection of our graduates and the fact that they are prized in the workplace," said Cal Poly

President Jeffrey D. Armstrong. "We're proud that our graduates are recognized for their contribution to their industries and their communities."

In a separate report published by the website last spring, Cal Poly also ranked high for overall return on investment – graduate earning potential as compared to tuition costs.

For more details on how the university fared in the latest rankings, visit [www.payscale.com/college-salary-report-2014](http://www.payscale.com/college-salary-report-2014). — *Larry Peña*

## Cal Poly Announces Institute for Advanced Technology & Public Policy

Cal Poly President Jeffrey D. Armstrong has announced the creation of the Institute for Advanced Technology & Public Policy, founded and led by former state Sen. Sam Blakeslee. The interdisciplinary

institute will develop practical solutions to societal issues by informing statewide public policy through advanced technology. The institute already has three projects up and running and has received a generous gift of \$1 million that will help enable applied research and create new teaching and learning opportunities for faculty and students.

"Cal Poly has long been a recognized leader in the fields of innovation and technology, and this institute is another important way our faculty, staff and students can demonstrate leadership in developing and evaluating technologies to inform public policy," Armstrong said.

The nonpartisan institute is guided by a diverse advisory board of distinguished state leaders. Among the panel

*The interdisciplinary institute will develop practical solutions to societal issues by informing statewide public policy through advanced technology.*

are California Lt. Gov. Gavin Newsom, prominent California philanthropist and reformer Charles Munger Jr., and former Chancellor of the California Community Colleges and State Sen. Jack Scott. The institute's faculty sponsor is Douglas Piirto, head of the Natural Resource Management & Environmental Sciences Department.

Blakeslee, who holds a doctorate in geological sciences, earned a patent for his innovative work in geologic imaging while working at Exxon as a strategic planner and senior research scientist. He also operates a multi-branch investment and financial planning firm on the Central Coast. — *Matt Lazier*