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National notice

ASU has been recognized by the journal *Hispanic Outlook in Higher Education* as one of the top choices for Hispanic students in the country. The national journal publishes an annual list where it reviews and recognizes the quality and efforts of higher education institutions to graduate and retain Hispanic students.

The magazine's May 5 issue ranked the top 100 colleges for Hispanics mostly based on the numbers of degrees awarded to Hispanic students and the quality of the institution. ASU ranked 20th overall in the number of bachelor's degrees awarded to Hispanics and placed in the top 10 in bachelor's degrees awarded to Hispanics in the academic areas of agriculture, architecture, communications and education.

"Our nation needs a highly qualified teaching force that closely reflects the demographics of the children and families being served within the halls of pre-K-12," says George W. Hynd, senior vice provost for education and innovation and dean of the Mary Lou Fulton College of Education. "We are extremely pleased to be included among *Hispanic Outlook's* top 100 institutions leading efforts nationally to increase the number of Latino college graduates within the field of education."

Of the 1 million students enrolled in public prekindergarten through 12th-grade schools in Arizona, non-Latino whites constitute the largest ethnic or racial group at 46 percent. Latinos account for 40 percent of the total enrollment statewide, and 50 percent in Phoenix and Tucson. Despite this dramatic shift, the overwhelming majority of Arizona teachers are non-Latino white females.

ASU also ranked 19th overall in Hispanic enrollment among four-year colleges, No. 22 in the number of doctoral degrees awarded to Hispanics and 76th in master's degrees awarded to Latinos.

ASU on the Web

ASU launched its Downtown Phoenix campus location page in February as the first of four sets of location pages to be published on the Web. Location pages for the Tempe, West, and Polytechnic campuses are now complete and can be viewed online at <http://campus.asu.edu>.

The new campus location pages, which help create a seamless Web presence across all campuses, contain campus- and location-specific information, including information on transportation, residence halls, student life, facilities, photos, tours, maps and events. Information common to the entire university will be located on general ASU pages.

To suggest a Web site to be profiled in *ASU Insight*, send the site address to asuinsight@asu.edu.

Rittmann offers fresh insight on energy challenge

Biodesign Institute researcher touts bioenergy alternatives

By Joe Caspermeyer

Perhaps there is no greater societal need for scientific know-how than in finding new ways to meet future energy demands. Skyrocketing gas prices, an uncertain oil supply, increasing demand from around the world, and the looming threat of climate change have made identifying and developing realistic energy alternatives a national priority.

For Biodesign Institute researcher Bruce Rittmann, the threat of global warming also presents a significant opportunity for

innovation and fresh solutions to today's energy challenges.



Bruce Rittmann

"Beginning with the Industrial Revolution, the unprecedented expansions of human population and economic activity have been based on combusting fossil fuels," Rittmann says. "Today, fossil fuels provide 80 percent of the energy needs to run human society worldwide: 34 percent petroleum, 32 percent coal and 14 percent natural gas."

In a new "Perspective" article published

in the journal *Biotechnology and Bioengineering*, Rittmann points the way toward developing bioenergy as the best realistic alternative to meet our current and future energy needs while cutting back on the use of fossil fuels.

Rittmann directs the Center for Environmental Biotechnology and is a professor in the Ira A. Fulton School of Engineering's Department of Civil and Environmental Engineering.

"The only way that human society has a realistic way of slowing and reversing global warming is bioenergy – and it has to be bioenergy that is done right," says (See **BIODESIGN** on page 11)



Crystal Castro, who graduated from Maryvale High School in May, looks forward to attending ASU this fall after taking a criminal justice class at the West

campus last spring through the Collegiate Scholars program. She is shown in this photograph at the Tempe campus while attending the Upward Bound program.

High school seniors see benefits from ASU college credit classes

By Sarah Auffret

Local high school students are getting a running start on college through an ASU partnership that allows them to take courses from ASU professors while still in high school.

Nearly 100 high schoolers have taken Engineering 101 and 102, criminal justice, economics and other college-level courses over the past two years.

The Collegiate Scholars program was started two years ago as part of Access ASU to increase the pipeline of Arizona students who attend ASU.

Students must be top high school seniors who meet requirements to attend the uni-

versity, and who are interested in an ASU course that is connected to a major or career. The courses are taught by ASU faculty members for university credit.

Last fall, high school seniors took an engineering class after school at Desert Vista High School twice a week from professors Mark Henderson and Bob Hinks, getting to explore hands-on engineering. They designed and built their own rockets and computer-controlled robots.

Students from other high schools also enrolled in an engineering class at the Polytechnic campus this year, as well as a criminal justice class at the West campus.

(See **HIGH SCHOOL** on page 11)

Researchers untangle quantum conundrum

By Nicholas Gerbis

Quantum computing has been hailed as the next leap forward for computers, promising to catapult memory capacity and processing speeds well beyond current limits. Several challenging problems need to be cracked, however, before the dream can be fully realized.

Two ASU researchers – Richard Akis and Regents' Professor David Ferry, both of the electrical engineering department's Nanostructures Research Group – have proposed a solution to one of the most controversial of these conundrums. In the process, they may have taken a significant step toward realizing a quantum computing future. Their solution appeared in a special April issue of the *Journal of Physics: Condensed Matter*.

Two basic requirements of any computer are the capacity to store a value (information) and the ability to read that value. Yet even these most basic requirements present cutting-edge challenges to quantum physicists.

Today's computers store data logically as bits – ones and zeroes represented physically as positive or negative charges in a storage medium. Quantum computers, conversely, will store data logically as quantum bits, or "qubits" – an entire range of values represented physically by an electron's angle of spin.

(See **ASU RESEARCHERS** on page 11)

WRITE STUFF, INDEED

Gold-medal editorial director wins Best Book title

By Britt Engle

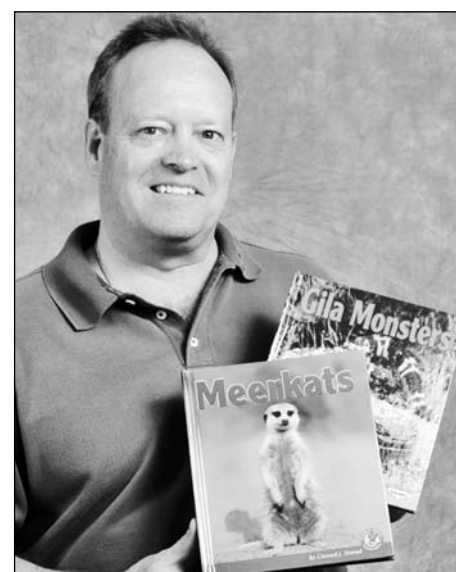
Conrad J. Storad, director of ASU Research Publications, recently had a very good week.

He and his staff learned they had won the 2008 Council for Advancement and Support of Education (CASE) gold medal as the best university research magazine in the country a few days after Storad received the Glyph Award for Best Book at the Arizona Book Awards for his children's story "Meerkats."

"All I can say is that 2008 has been a very, very good year for my staff and myself in terms of professional accolades and recognition," says Storad, who was named Arizona Children's Author of the Year in 2001. "The award for Best Book is definitely a major award in my career as a children's author."

He also earned the Governor's Choice Award in 2005 for his

(See **GOLD-MEDAL** on page 11)



Conrad Storad, director of ASU Research Publications, shows off two of his children's books, "Meerkats" and "Gila Monsters." His book "Meerkats" was the first children's book to ever garner the Best Book Award from the Arizona Book Publishing Association.

TOM STORY PHOTO

Online early childhood program assists teachers as deadline nears

By Matt Crum

With a change in certification requirements looming for Arizona's kindergarten teachers, the education colleges at ASU's Polytechnic, Tempe and West campuses are collaborating to offer an online program enabling teachers to add an early childhood endorsement to their elementary education or special education teaching certificate while earning a master's degree.

Starting in July 2009, teachers in public school prekindergarten and kindergarten settings must possess an early childhood certificate or endorsement to meet new Arizona Department of Education requirements.

Currently, Arizona teachers with an elementary education certificate are eligible to teach kindergarten. That eligibility ends in July 2009 for those without an early childhood endorsement.

ASU is the only university in Arizona offering a program to address this situation for working teachers.

"Across urban and rural areas of the state, there are kindergarten teachers who will be ineligible to continue in their current positions unless they meet this new requirement," says Mari Koerner, dean of the College of Teacher Education and Leadership. "ASU's online program enables these teachers to stay on the job while they earn the early childhood endorsement."

The ASU program, which leads to a master's degree in curriculum and instruction with an early childhood education concentration, begins Aug. 25 with the start of the fall semester. Teachers who start this August and complete program requirements will meet the July 2009 deadline and remain eligible to teach kindergarten. (They also must pass the early childhood subject knowledge portion of the Arizona Educator Proficiency Assessment.)

Following a one-day, on-site orientation at the beginning of each semester, coursework will be delivered completely online. After taking online classes in the fall and spring semesters, teachers will complete a supervised four-week practicum in a prekindergarten setting during the summer of 2009.

Additional coursework in the fall of 2009 completes requirements for the master's degree. Teachers who already have earned a

master's degree can choose not to take the final semester's coursework if they do not desire to obtain a second master's.

Teachers will enroll through the Polytechnic, Tempe or West campus of ASU, depending on where they wish to be placed for their summer prekindergarten practicum experience. Placements will be available in public, private and charter schools, as well as private early childhood programs in all 15 of Arizona's counties, so that teachers around the state will not have to travel long distances to meet the practicum requirement.

"This cross-campus initiative embodies ASU President Michael Crow's vision of one university in many places," says Elaine Surbeck, associate dean for teacher education in the Mary Lou Fulton College of Education. "Early childhood education faculty throughout ASU worked together to meet the needs of teachers not only in metropolitan Phoenix, but across the state."

While the need for an early childhood endorsement is most pressing for kindergarten teachers, achieving the endorsement can benefit any teacher wishing to focus on teaching in prekindergarten through third grade. The new ASU master's program will develop teachers' knowledge of a range of subjects, including emergent literacy, developmental and functional assessment of young children, and mathematics in early childhood education.

Teachers interested in pursuing the program are encouraged to begin the application process as soon as possible. Admission requirements include possession of a bachelor's degree and an Arizona elementary education or special education teaching certificate, along with submission of university transcripts and proof of measles immunization. (Additional supporting documents may be required of applicants with less than a "B" average in the last 60 semester hours of their bachelor's degree program.)

The School of Educational Innovation and Teacher Preparation at ASU's Polytechnic campus will supervise practicum experiences in the following school districts and counties:

- Maricopa County (East Valley districts: Apache Junction, east Mesa, Chandler, Gilbert, Higley, J.O. Combs and Queen Creek).

- Gila County.
- Pinal County.
- Apache County.
- Navajo County.

For more information, contact Billie Enz at (480) 283-0311 or bjenz@asu.edu.

The Mary Lou Fulton College of Education at ASU's Tempe campus will supervise practicum experiences in the following school districts and counties:

- Maricopa County (Central Valley districts: Balsz, Cave Creek, Creighton, Isaac, Kyrene, west Mesa, Murphy, Osborn, Paradise Valley, Phoenix Elementary, Roosevelt, Scottsdale, Tempe and Wilson).

- Pima County.
- Santa Cruz County.
- Cochise County.
- Graham County.
- Greenlee County.

For more information, contact Beth Swadener at (480) 965-1452 or beth.swadener@asu.edu.

The College of Teacher Education and Leadership at ASU's West campus will supervise practicum experiences in the following school districts and counties:

- Maricopa County (West Valley districts: Alhambra, Buckeye, Cartwright, Deer Valley, Dysart, Fowler, Glendale, Liberty, Litchfield, Littleton, Madison, Pendergast, Peoria, Surprise, Tolleson and Washington).

- La Paz County.
- Mohave County.
- Yavapai County.
- Coconino County.
- Yuma County.

For more information, contact Nancy Perry at (480) 421-1718 or nancy.perry@asu.edu.

Crum, with Public Affairs at the West campus, can be reached at (602) 543-5209 or mattthew.crum@asu.edu.

Escontrías to lead ASU's academic personnel office

By Chakris Kussalanant

Gabriel Escontrías Jr. has been named the new director for the Office of Academic Personnel.

Escontrías will serve as the liaison to the academic units and faculty with questions or concerns about university and college policies concerning the status of their appointments, requirements for sabbaticals, leaves, reappointments, tenure and promotion.

"My overall goal is to make sure that the Office of Academic Personnel becomes user-friendly, and to ensure that all our processes abide by ASU Policies and Procedures," Escontrías says.

Although Escontrías' new assignment doesn't become effective until July 1, he already has begun working on a number of projects.

He's been developing a new monthly brown bag series so everyone in the College of Liberal Arts and Sciences can become more familiarized with academic personnel processes; providing information to the ASU Web Team to redesign the Office of Academic Personnel's Web site; and has been working with other colleagues to create a manual on university policies and procedures.

Escontrías served as the manager of academic personnel in the College of Liberal Arts and Sciences. He joined the college in February 2007 to serve as assistant to the dean of natural sciences.

Escontrías holds a bachelor's degree in sociology and a master's degree in higher and postsecondary education from ASU. He is pursuing a doctoral degree in education at ASU's Mary Lou Fulton School of Education. He also is the 2008-2009 president of the ASU Chicano/Latino Faculty and Staff Association.

Kussalanant, with Media Relations, can be reached at (480) 727-9181 or chakris.kussalanant@asu.edu.

Creager takes reins as Stardust Center director

By Julie Russ

The College of Design has announced the appointment of Kurt Creager as the new director of the Stardust Center for Affordable Homes and the Family.

The announcement was made at the Stardust Center Advisory Board meeting April 29.

Creager previously was the chief executive officer of the Vancouver Housing Authority in Vancouver, Wash., where he was responsible for producing more than 3,500 housing units over a 15-year period.

Creager has more than 25 years experience in nonprofit affordable housing, private development and government-based public housing authorities.

As the former chief of housing and economic development for King County in the state of Washington, he created a countywide housing opportunity trust fund, which has since invested \$150 million in more than 9,000 affordable housing units in more than 40 localities.

Creager has been active in Phoenix for the past few years as senior vice president for Housing Development for CDK Partners. He also has his own consultancy, Urbanist Housing Solutions, where he focuses on transit-oriented and sustainable master planned communities in Scottsdale, Beaverton, Ore., and Kootenai County, Idaho.

Urbanist Solutions is also retained by the housing authority of Los Angeles to help diversify their portfolio to include a significant inventory of work force housing for communities.



Kurt Creager

"Kurt Creager brings an entrepreneurial spirit to the intersection of public and private enterprise," says Conrad Egan, president of the National Housing Conference and a Stardust board member. "He has a lifelong commitment to increasing and supporting good, affordable homes to families and the organizational, managerial and leadership skills to bring the Stardust Center to a higher level of performance."

"Stewardship is important," Creager says. "The Stardust Center needs to extend its reach into the community to leave it in a better condition than how we find it. We will remain grounded in the local community but will be striving to increase the visibility and applicability of the center's work to the national and international stages."

Wellington Reiter, dean of the College of Design, says Creager is coming to Arizona at a pivotal time for housing and real estate development.

"He has the knowledge of the complex financing and development strategies vital to the development of affordable and work force housing," Reiter says. "In today's economic climate, we will need his experience and leadership to ensure that the Stardust Center will continue to be at the forefront of solutions to today's challenges in housing and sustainable development."

Creager was a Fannie Mae fellow in the State and Local Public Executive Program in the John F. Kennedy School of Government at Harvard University, and he is a graduate of the Institute for Public Policy and Management at the University of Washington. He received his bachelor's degree in environmental planning and architectural graphics at Western Washington University.

Russ, with the College of Design, can be reached at (480) 965-6693 or jruss@asu.edu.

Association praises ASU undergrad for meningitis vaccine presentation

ASU undergraduate Rebecca Raub was one of a handful of students that presented their works at the 2008 American College Health Association's annual meeting June 3-7 in Orlando, Fla.

Raub discussed ASU's meningitis vaccination program during a talk titled "Collaboration with a Student Group on a Voluntary Meningitis Vaccination Program."

"Her presentation really stimulated interest in what a student group that is committed to campus health could accomplish," says Allan Markus, director of the ASU Campus Health Service and Raub's co-presenter. "Of the 235 faculty presenters at the meeting, Rebecca was one of only 14 students chosen to present their work."

The importance of vaccinations in the battle against meningitis was brought to the attention of ASU students last year through the Health and Counseling Student Action Committee. The committee helped to raise awareness of meningitis vaccinations, assisted in the development of forms to track data and increased

the percentage of vaccinations given by the ASU Campus Health Service by more than 60 percent.

Raub is chair-emeritus of the committee.

"I couldn't be more proud of the success of our meningitis vaccination program this year," Raub says. "All the Health and Counseling Student Action Committee members and volunteers made a huge impact on our vaccination rate."

An article titled "Improving Vaccination Rates in States and Universities Without Mandatory Vaccination Policies," written by Markus and Raub, was published this spring in the national American College Health Association's newsletter.

Raub will be a junior at ASU this fall. She is majoring in molecular biosciences and plans to pursue a career in medicine after she graduates.

The incoming president of the Health and Counseling Student Action Committee group, Jelena Peric, also attended the meeting and will coordinate this year's efforts on improving health and counseling care for ASU students.

ASU Insight

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Faculty welcomes international law scholar

By Judy Nichols

Laura A. Dickinson, a professor at the University of Connecticut School of Law whose work deals with transitional justice, legal responses to terror, foreign affairs privatization, and the interrelationship between international and domestic law, will join the faculty of ASU's Sandra Day O'Connor College of Law in August.



Laura A. Dickinson

She also will become director of a new center on international law and national security, to be jointly sponsored by the College of Law and the School for Global Studies in the College of Liberal Arts and Sciences.

"ASU is a university whose faculty members are striving to solve some of the most serious problems facing the state, the nation and the world," ASU President Michael Crow says. "Laura A. Dickinson is a renowned scholar who is focused on international issues of great consequence, and we are fortunate that she has agreed to join our College of Law."

Dickinson, a graduate of Harvard College and Yale Law School, will be a Foundation Professor of Law. She will teach human rights and courses related to international law and administrative law. Her appointment enhances the college's already strong faculty presence in international law, human rights and national security.

"Professor Dickinson will be an important bridge between the College of Liberal Arts and Sciences and the College of Law," says Elizabeth

D. Capaldi, ASU's executive vice president and provost. "Her appointment builds on current strengths at ASU to create an interdisciplinary program in the area of international law with the College of Liberal Arts and Sciences. Her center in this area will be adding two additional faculty members shortly, positioning ASU as a leader in global education and research."

Adds Quentin Wheeler, university vice president and dean: "As the College of Liberal Arts and Sciences becomes increasingly global in its vision and reach, the expertise that professor Dickinson brings will be of inestimable value to our students and programs. Her widely recognized views on international issues, human rights and democracy studies are of deep relevance to many of our units and programs. Under her leadership, the new research center in the college will have far-reaching impacts on campus, across the nation and around the world."

In commenting on her scholarly interests, Dickinson says: "I became interested in human rights when, as a law student, I had the opportunity to take a human-rights clinic. We sued the U.S. government for Haitian and Cuban refugees who were picked up on the high seas and brought to Guantanamo Bay. They were not getting any screening to see if they were refugees, and we challenged that in federal court."

Following that early experience, Dickinson worked on a variety of alien tort cases in which non-citizens could bring cases of torture or other serious human rights abuses in federal court against foreign dictators who came to the United States.

Dickinson, who is widely published and quoted, is the author of the upcoming book,

"Outsourcing War and Peace," to be published by Yale University Press. The book focuses on the increasing privatization of military functions, foreign aid and diplomacy, the ways in which such privatization affects human-rights law, and the variety of mechanisms that might be used to create greater accountability over private actors working abroad under government contracts.

"When we went to war in Iraq, I could see after the first year that we were using contractors to an unprecedented degree," Dickinson says. "I was interested in the human-rights implications of that."

Jeremy Paul, dean of University of Connecticut School of Law, says Dickinson's work is notable because it avoids the polarized views on the issue.

"Laura's work steers a course between two extremes," Paul says. "She thinks it's unrealistic to believe public financing can fund all activity overseas and that contracting is here to stay. In that regard, she's breaking from liberal orthodoxy."

"On the other hand, she believes it is extremely important to police the activities of all the non-governmental agencies representing our country around the world. Her book, which proposes a series of accountability mechanisms that would start with the contract the agency signs, will be extremely important."

Adds Patricia D. White, dean of the Sandra Day O'Connor College of Law: "Laura Dickinson is emerging as one of the real stars in international law, and the College of Law is fortunate indeed to have her joining its faculty."

Nichols, with the College of Law, can be reached at (480) 727-7895 or judith.nichols@asu.edu.

Garcia tapped as Spencer Postdoctoral Fellow

By Verina Palmer Martin

Assistant professor David Garcia has been selected as a 2008-2009 National Academy of Education/Spencer Postdoctoral Fellow to research the convergence of school choice and school accountability with the diversification of the Latino population in the United States.

Garcia, of the Division of Educational Leadership & Policy Studies in ASU's Mary Lou Fulton College of Education, is one of 20 fellows selected this year from a pool of more than 150 applicants. He will receive a \$55,000 award to support salary replacement and research expenses for the two-year fellowship.

In Arizona, school choice offers students the opportunity to attend public, charter or private schools. Garcia says there is a preponderance of evidence that school choice also leads to self-segregation, but these studies used only African-American and white students in the framework.

"There has been no consistent stream of research on Latinos and school choice," he says. "The research does reveal that students who leave traditional public schools tend to attend charter schools with others of the same race. Latinos, however, do not."

Garcia says Latino parents have strong opinions that could shape school policy, but previous school choice studies don't reveal their viewpoint on the issues.

"Dr. Garcia's study to examine the diversification of the Hispanic community and the union of accountability and school choice policies has the potential to provide critically important information for Arizona and the nation," says Stafford Hood, associate dean for research with the Fulton College. "The steady and rapid increase of the Hispanic population in major urban areas in the Midwest, South and East Coast – where they had not typically been present in large numbers – increases the potential of Dr. Garcia's research to inform state and federal policy-makers. His work has consistently been of high quality, and many of us eagerly await what we might learn from this particular project."

Garcia intends to investigate further the trends associated with school choice, taking into account that Latinos differ from other minority groups



David Garcia

in that they have assimilated over generations and are more likely to live in mixed-race neighborhoods. At the same time, a new influx of immigrants is changing community dynamics nationwide. This shift is largely unexplored in the area of school choice, Garcia says.

"Accountability and choice have gone hand-in-hand with groups of people dissatisfied with public schools," he says. "One outlet has been school choice – giving people an opportunity to go elsewhere."

But in a previous survey of Arizona parents on school choice, Garcia oversampled Latino parents and found that they are more likely to be dissatisfied with the school choices available to them. They also are more likely to support harsher accountability measures.

"Choice is healthy," he says. "Choice is good for the system. But we need to keep in mind that we need to have accountability in choice as well. Latino parents are less likely to believe they have good choices for their children. They are more willing to take more drastic, heavy-handed actions with regard to improving schools."

"Understanding where these trends may go is important. The argument in my papers is that understanding how they are going to shape the debate on school choice and accountability could foreshadow what's going to happen nationally. Arizona now looks like what many states will look like in the future."

Garcia, whose professional experience includes extensive work in education policy development and implementation, previously served as Arizona's associate superintendent of public instruction before joining the faculty in the Fulton College in 2004.

The fellowship is funded by a grant to the academy from the Spencer Foundation. The Spencer fellowships are the oldest source of support for education research, nationally or internationally, for recent recipients of the doctorate. Garcia also will receive professional development as well as interact and work with the National Academy of Education and the Spencer Foundation.

"I'm looking forward to participating in the next couple years," Garcia says, adding that the most exciting part will be when he presents his research to NAE.

Martin, with the Mary Lou Fulton College of Education, can be reached at (480) 965-4911 or verina.martin@asu.edu.

Biodesign Institute adds 2 outreach educators

By Julie Kurth

The Biodesign Institute at ASU has appointed Kenneth Costenson and Lisa Osinga as outreach educators. Together, they bring more than 35 years of teaching and educational administrative experience to the institute.

Costenson and Osinga will develop tactile and experiential science-based education for teachers and students in grades K-6, and will seek outside funding to support these programs.

"Ken and Lisa have expertise in delivering science curriculum that engages students that will be a great asset in our efforts to inspire the next generation of scientists," says Richard Fisher, director of education outreach for Biodesign.

Costenson, a seasoned educator, most recently served as secondary science specialist for the Mesa Public Schools, where he coordinated the

delivery of the science curriculum for the junior and senior high schools throughout the district. He supervised and was instrumental in establishing the Mesa Biotech Academy at Mesa High School, which has become a national model for secondary biotechnology programs.

Costenson started working with students in 1969 in Davenport, Iowa. He has inspired students through his 19 years as a teacher at Dobson High School in Mesa and prior teaching roles in Illinois and Texas. Since moving to the Phoenix area, Costenson also served as an adjunct instructor at Rio Salado Community College in Tempe, and at ASU's Tempe and Polytechnic campuses.

He earned a bachelor's degree in biology and a master's degree in zoology from the Western Illinois University-Macomb.

Osinga brings a fresh classroom perspective

to the position of outreach educator. Before her current position, Osinga was a biology teacher at Thunderbird High School in Phoenix. There, she taught accelerated biology and general biology courses.

Since 2006, Osinga has been part of Promoting Reform through Instructional Materials that Educate (PRIME), a program that facilitates the selection of quality teaching materials, which align with Arizona science standards. In fact, she completed Project PRIME's graduate-level program at Northern Arizona University.

Osinga earned a bachelor's degree in biology and a master's degree in secondary education from ASU.

Kurth, with the Biodesign Institute, can be reached at (480) 727-9386 or julie.kurth@asu.edu.

In THE NEWS

ASU experts frequently are called upon by the local and national news media to provide insight and opinion on current events and issues of public interest. Following are excerpts of recent news articles featuring ASU representatives.

High-tech satellites, combined with low-tech methods on the ground, soon will be used to help understand how bees are responding to climate change – and to predict how far the aggressive Africanized bees will spread in North America. "One of the questions is how well they'll be able to pick up the flowering events that are important for bees" from the satellite data, says ASU's **Jon Harrison**, a School of Life Sciences professor. "There's been a tremendous disparity in predictions for how far north Africanized honeybees are going to go," Harrison says, in part because what limits their expansion is not understood. *Discovery News*, May 28.

San Francisco is the fittest big city in the USA, according to a scientific analysis released May 29 by the American College of Sports Medicine. Many cities already have initiatives to encourage more physical activity, but others need to be doing more, says **Barbara Ainsworth**, an ASU exercise and wellness professor. "Cities can take this information and use it to improve the quality of life for their residents," she says. *USA Today*, May 29.

Quentin Wheeler, dean of ASU's College of Liberal Arts & Sciences, launched ASU's International Institute for Species Exploration to find ways for taxonomists to work together, and to work more efficiently to speed up new discoveries. "My hope is that, in five years, taxonomy will be practiced very differently," Wheeler says. "That we have a cyberinfrastructure. That we have remote access to species. That we have an image library and teams of specialists throughout the world working together. That's a huge change from what we have today." *East Valley Tribune*, June 7.

When it comes to choosing a baby's name, some parents are choosing to name their offspring after athletes. "It is inevitable, because sports heroes are our heroes," says ASU English professor **Don Nilsen**. Nilsen and his wife, **Alleen**, also an ASU English professor, are co-presidents of the American Name Society. Adds Alleen: "As mothers, we have no doubt that we feel close to the child, but we aren't so sure about the fathers, and so we name babies after their paternal ancestors, or encourage our husbands to choose names that relate to their interests. This may be a contributing factor in the new popularity of sports-related names." *Orlando Sentinel*, June 15.

Scientists say they have found proof of water ice on Mars away from the polar ice caps, a discovery made by NASA's Phoenix Mars Lander. "As for the ice, we were expecting to find it, but science is full of the unexpected, so until they actually found the ice and can begin to study it there are real questions about whether or not the hypothesis was correct," says ASU geophysicist **Phil Christensen**. "The real excitement will come when they start to study the ice in detail, and attempt to learn how it formed and how old it is." *Space.com*, June 20.

Phoenix No. 11 on list of U.S. fittest metros

By Chris Lambrakis

Metro Phoenix could use added support for people to live healthy and active lifestyles compared to 15 other large cities in the United States. At least that's according to a new program and report by the American College of Sports Medicine (ACSM) in Indianapolis, in conjunction with the WellPoint Foundation.

The ACSM American Fitness Index (AFI) inaugural data report, "Health and Community Fitness Status of 16 Large Metropolitan Areas," is a snapshot of the state of health and fitness in America's 15 most populous metropolitan areas, plus the greater Indianapolis metropolitan area. (As the headquarters of ACSM, Indianapolis was included in the rankings.)

The greater Phoenix metro area ranked as the 11th fittest among America's largest metropolitan areas.

"At this point we, would just like to inform the Phoenix area of its position and have an opportunity to chat about the program with city officials in the various areas reflected in the report," says Barbara Ainsworth, an ASU Exercise and Wellness professor and vice-chair for the development of the American Fitness Index.

The AFI data report breaks down several components related to health and fitness, including a unique evaluation of community-level data, and offers strengths and weaknesses of each city. In addition to a data report, the AFI is a program designed to improve health, fitness and quality of life in the United States by promoting physical activity.

The data reveals that citizens in the Valley of the Sun have lower-than-average rates for chronic health diseases, in addition to a lower obesity rate. An above-average number of the local population exercised in the last 30 days, but just 53.6 percent reported being physically active regularly at least at moderate intensity. Just 23 percent of its citizens eat five or more fruits and vegetables per day. Phoenix invested on average with its peer cities on park-related expenditures, yet it scored lower than average on recreational facilities and creating an environment conducive to physical activity.

An ACSM research team from the Indiana University School of Family Medicine collected and analyzed the data gleaned from U.S. Census data, the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS), and other existing research data to give a scientific, accurate snapshot of the health and fitness status at a metropolitan level.

San Francisco and the surrounding Bay Area took the honor as the fittest metro area. For a complete release and list of the data components, go online to www.AmericanFitnessIndex.org.

Lambrakis, with *Public Affairs at the Polytechnic campus*, can be reached at (480) 727-1173 or lambrakis@asu.edu.

ASU honors Spielberg for communication excellence

By Carol Hughes

Steven Spielberg, a three-time Academy Award winner, is the 2008 recipient of ASU's Hugh Downs Award for Communication Excellence. His latest film, "Indiana Jones and the Kingdom of the Crystal Skull," starring Harrison Ford, opened in theaters worldwide late last month.

"This year's award honors a master storyteller," says H.L. "Bud" Goodall Jr., director of ASU's Hugh Downs School of Human Communication.

The award winner was announced June 19.

Spielberg, a founding partner of DreamWorks Studios, has written, directed or produced some of the top-grossing films of all time, including "Jurassic Park" and "E.T. The Extra-Terrestrial."

Among his film honors are two Oscars for best director and best picture for "Schindler's List," and a third Oscar for best director for "Saving Private Ryan." Those movies also earned Spielberg Golden Globe awards.

The Directors Guild of America (DGA) presented Spielberg with its Lifetime Achievement Award, as did the American Film Institute. Spielberg has earned three DGA Awards and 10 DGA nominations – more than any other director in history.

In crafting the award narrative for the ASU honor, respected broadcast journalist Hugh Downs says Spielberg is "a man who has demonstrated the power of narratives to inform, persuade and entertain, all the while reminding us of how important it is to be able to respect the past in order to imagine a better future."

"In an age defined by new global communication and shaped by our use of new communication technologies, it is only right and fitting to honor an individual who has used film – and the innovations we associate with his films – to change how we think about our worlds, both real and imagined," Downs writes. "The stories that are the soul of Steven's films, and the technological advancements that have been created to touch the heart and appeal to our capacity for wonder, deserve to be recognized not only as achievements in the filmic arts, but moreover as superlative achievements of human storytelling and inspiration."

In accepting the award, Spielberg says: "It is a great honor for me to receive this award, for many reasons. First, it comes from Hugh Downs, whose work as a communicator I have long admired and respected. Second, because the award recognized the significance of human communication, which

"In an age defined by new global communication and shaped by our use of new communication technologies, it is only right and fitting to honor an individual who has used film – and the innovations we associate with films – to change how we think about our worlds, both real and imagined."

*– Respected broadcast journalist
Hugh Downs*

is something we need more than ever in today's world. And third, because the root of this award springs from Arizona, which has meant so much in my own early life. So, thanks, Hugh, and thanks, Arizona State University."

As a teenager, Spielberg lived in Scottsdale, and he attended Arcadia High School in Phoenix for several years before moving to California. While at Arcadia, Spielberg wrote and directed "Firelight," a science-fiction movie.

Spielberg is the second recipient of the Hugh Downs Award for Communication Excellence. Last year, the honor went to Larry King, host of CNN's "Larry King Live."

The idea behind the award came from school alumna Jeanne Lind Herberger, who wanted to honor the school's namesake by establishing an annual award to commemorate Downs' legacy.

Downs has experience as a television host, producer and author. He is a living legend among American communicators, Goodall says.

Downs served as anchor of "20/20," host of "The Today Show," announcer for "The Tonight Show with Jack Paar" and co-host of the PBS talk show "Not for Women Only."

Hughes, with the *College of Liberal Arts and Sciences*, can be reached at (480) 965-6375 or carol.hughes@asu.edu.

Webcam offers 'dean's-eye view' of construction

ASU's College of Public Programs now offers a live webcam that shows a "dean's-eye view" of construction at the Downtown Civic Space Park from the sixth floor of the college, located next to the park in downtown Phoenix.

Workers began installing three giant steel beams and two large steel rings June 23 to support the floating net sculpture designed by artist Janet Echelman.

The webcam can be accessed online at <http://copp.asu.edu/do/from-the-dean/civic-space>. It is housed in the offices of Debra Friedman, university vice president and dean of the College of Public Programs at the Downtown Phoenix campus.

The design of the sculpture, "Sky Bloom," was inspired by Arizona's distinctive monsoon cloud formations, and by saguaro flowers and boots (which form inside the cactus).

The sculpture will be suspended 38 feet above the park on a framework of two steel rings, tapered poles and cables. It will rise to an overall height of 100 feet and be about 100 feet wide at the top.

Building the structure that will support the art sculpture is a complicated feat of engineering that has taken almost a year to plan and design.

The net sculpture is expected to be installed later in the year, and the webcam

will be active for real-time viewing during that time.

The sculpture already has received the Excellence in Structural Engineering Award from the Arizona Structural Engineers Association.

When completed early next year, the Downtown Civic Space Park will include several large grassy areas, spaces with game tables, public seating and hardscape where student organizations can network, much like they do outside ASU's Memorial Union in Tempe.

For information, contact Corey Schubert at (602) 496-0406 or corey.schubert@asu.edu.

Cronkite students earn host of awards for journalism prowess

A documentary produced by students in the Walter Cronkite School of Journalism and Mass Communication has won two awards for excellence in national and international competitions.

The documentary, "Holy Hunger in the Midst of Plenty," follows Muslim students at ASU as they observe Ramadan, a monthlong religious observance emphasizing prayers, fasting, charity and self-examination.

The 15-minute student documentary, produced by students Jamie Murdick, Stjepan Alaupovic and Zabihullah Noori, won a 2008 Bronze Telly Award as well as a Videographer Award of Distinction.

The Telly Award is one of the most prestigious awards given for video and film production, as well as television programs, commercials and work created for the Web. Productions in more than 200 categories are judged on their individual merits, and the best are given Silver Telly or Bronze Telly awards.

The international videographer awards program honors talented individuals and companies in the video production field. Entries number in the thousands from all 50 states and multiple countries.

The Cronkite School documentary, entered in the "Produced by Students" category, received the organization's highest award.

Murdick, Alaupovic and Noori, all recent graduates of the Cronkite School, created "Holy Hunger in the Midst of Plenty" last year while students in professor John Craft's documentary production class.

Craft says that Noori, a graduate student at the time and a Muslim, was interested in how Muslim students try to adhere to their

faith and still fit into a secular culture at ASU, especially during Ramadan. The idea grew into a semesterlong team project.

"They told the story very well, and in today's world, this is an important story," Craft says.

Cronkite students also recently finished ninth in the national Hearst Journalism Awards for 2007-2008 – the seventh consecutive year that the school has finished in the top 10.

More than 100 accredited journalism schools from around the country compete each year, entering their students' best work in monthly competitions for radio and television news, multimedia, photography and writing. Schools are ranked at the end of the year based on points awarded in the monthly contests.

This year, Cronkite students placed in every category, taking sixth overall in broadcast news, seventh in multimedia, 13th in photography and 17th in writing in the awards that are often called the Pulitzers of college journalism.

Cronkite student Bonnie Bolt was selected to participate in the Hearst national championships earlier this month. It is the fifth time in the past six years that a broadcast student from the school has been selected for the championships, which bring top journalism students from across the country to San Francisco to test their skills in an intensive, weeklong face-off.

Bolt, who graduated in May, was the winner of a \$1,500 scholarship.

The annual Hearst Journalism Awards Program was established by the William Randolph Hearst Foundation in 1960 to provide support, encouragement and assistance to journalism education at the college and university level. The program distributes more than \$550,000 in scholarships and grants annually.

The following is a complete listing of Cronkite Hearst winners for the year:

Television News Reporting

Bonnie Bolt, Mesa, fourth.
Michelle Ashworth, McLean, Va., fifth.

Radio News Reporting

Dana Granillo, Phoenix, 11th.
Sam Eshelman, Carlsbad, Calif., 14th.

Radio Feature Reporting

Sam Gavin, Newark, Ohio, 14th.

In-Depth Reporting

James Kindle, Riverton, Wyo., second.

Feature Writing

Celeste Sepessy, Goodyear, eighth.

Multimedia

Annalyn Censky, Tucson, seventh.

Photojournalism, Picture Story Series

Deanna Dent, Tempe, 11th.

Photojournalism, News and Sports

Deanna Dent, Tempe, 17th.

Insight *On campus*

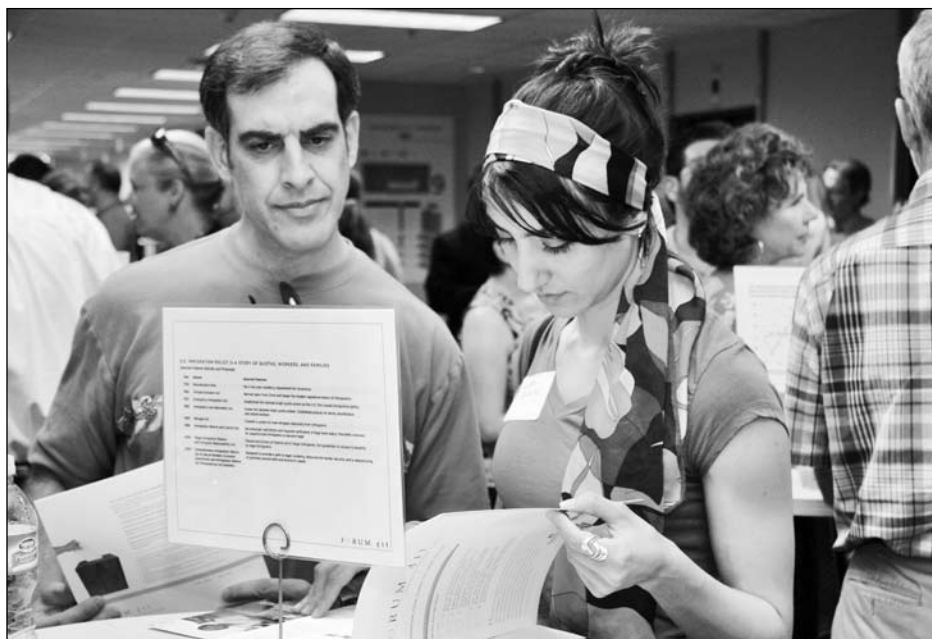
June 27, 2008

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FELIPE RUIZ-ACOSTA PHOTOS

Morrison Institute unveils Forum 411

In the photo at right, filmmakers Matt De Jesús and Lourdes Gonzáles examine a report June 11 at the networking event "Immigration: From Global to Local to Kids," at Morrison Institute for Public Policy at ASU's Downtown Phoenix campus. The event launched Forum 411, a new quarterly briefing series that examines Arizona's most critical public policy issues. The event also featured photography, pictured above, by Eliza Gregory from the exhibit "FUSE: Portraits of Refugee Households in Metropolitan Phoenix," now on view at the ASU Museum of Anthropology. To read the new issue of Forum 411, visit the Web site www.morrisoninstitute.org.



Nothing's bugging ASU's Stout

Professor's enthusiasm earns distinguished teaching award

By Margaret Coulombe

If you drop into a microbiology class for majors at ASU, you might see associate professor Valerie Stout waving a pool noodle – or stumbling, arms trailing behind, palms up, in an interpretative dance version of the "runs" and "tumbles" used by bacteria to locate food sources. It's a movement she's coined the "Chemotaxis Dance."

At times perplexing and insightful, inspiring questions and humor, Stout's innovative arsenal of active learning practices and love of teaching earned her the 2007 Distinguished Teaching Award from ASU's College of Liberal Arts and Sciences.

"I strive to pass on my enthusiasm and passion for science and learning and instill a love of the scientific process to students," Stout says.

She also wants her students in microbiology and molecular biology to graduate from ASU with "the necessary backgrounds to make them both competitive and flexible in our rapidly changing field and intellectually proficient in an increasingly technological society."

This has meant that her students have to develop a solid grounding in facts – and, perhaps more importantly, that they acquire the ability to think critically and creatively and adapt to new situations and technologies.

"I want students to be able to read anything in the popular press and be able to critique it and be able to say, 'Hey, this doesn't make sense,'" she says.

Stout's approaches, however, make a lot of sense. She is one of two faculty members at ASU selected by the National Academies to attend the Summer Institute on Undergraduate Education in Biology, which took place June 22-27.

(See STOUT'S on page 8)

ASU designs program to address speech pathologist shortage

By Erica Velasco

Every year, the number of children in Arizona public schools who need speech and language services increases, while the number of qualified speech-language pathologists does not. To address this shortage, ASU's Department of Speech and Hearing Science, together with the Arizona Department of Education, is helping technicians who work in Arizona public schools earn a master's degree while completing their clinical training on the job.

ASU's Professional Enhancement Program (PEP) provides education and training on a part-time basis to speech-language technicians who are working in Phoenix area public school districts. Students enrolled in the accelerated master's degree program takes classes at night at ASU and are partnered during the day with qualified speech-language pathologists for their clinical training.

"The demand for speech and language services has increased so much, and so quickly," says Cathy Bacon, a clinical associate professor of speech and hearing science in ASU's College of Liberal Arts and Sciences.

She oversees PEP, which is supported with a five-year, \$625,000 grant from the Arizona Department of Education.

In 2006, there were about 50,000 children in Arizona public schools who qualified for speech and language services, according to the Arizona Department of Education. But in that same year, there were just 1,620 qualified speech-language pathologists in public school districts.

A qualified speech-language pathologist has a master's degree and the necessary clinical training to identify and administer therapy to people with speech and language disorders, Bacon says.

There are many reasons often cited for the increased de-

"The demand for speech and language services has increased so much, and so quickly."

– Cathy Bacon, ASU
clinical associate professor
of speech and hearing science

mand for speech and language services in public schools, including the rise in the number of children diagnosed each year with autism, Bacon says.

"In addition, there are a lot of other handicapping conditions that result in speech and language delay in children that then require the services of speech-language pathologists," she says.

While more and more school-aged children need such services, so do adults. People who suffer from strokes or brain injuries often need services from a speech-language pathologist.

"These types of needs have resulted in a national shortage of speech-language pathologists," Bacon says. "Our department is very concerned about this problem and is addressing ways that ASU can contribute to solutions to address this shortage."

ASU and the Arizona Department of Education recently conducted a stakeholder meeting to review data and develop a plan to address the statewide shortage. Stakehold-

ers, including special education directors, Arizona certification and licensing agencies, state lawmakers, school district representatives and other universities met at ASU's Decision Theater, where they used the facility's advanced visualization environment to view detailed, three-dimensional models of potential solutions.

"We also have a strong commitment to providing the best services possible to schoolchildren from qualified pathologists, because speech and language disorders can have such a strong impact on learning," Bacon says. "Children who are born with significant birth disabilities or are born prematurely often experience academic failure. If we can intervene and help support their language skills and development, they have a greater chance to be successful in school – and later in life."

With the goal of increasing the number of qualified pathologists who work in Arizona's public schools, ASU developed PEP. The part-time, accelerated master's degree program is designed to be completed in three years, compared to the full-time master's program, which takes two years to complete.

Now in its second year, 11 students are enrolled in the program. They work in the Mesa, Scottsdale, Kyrene, Deer Valley, Murphy Elementary, Roosevelt, Washington and Creighton school districts.

ASU receives more than 200 applications each year to its master's degree program in speech-language pathology, Bacon says. With the addition of PEP, the program will accommodate 10 additional students to total 40 master's students in speech-language pathology admitted and trained each year.

"ASU's program is competitive," Bacon says. "We have (See ASU DESIGNS on page 8)



Events are free, unless otherwise noted. Items in the "Exhibitions" section run at exhibit opening and on the first of each month only. Building abbreviations are listed according to the official ASU phone directory. Send information to Judith Smith at jps@asu.edu or fax (480) 965-2159. For information about ASU events, visit the Web at <http://events.asu.edu>.

Lectures

■ Wednesday, July 2

Biodesign Institute Summer Internship Brown Bag Lunch Seminar, noon-1 p.m., Biodesign Auditorium. Roy Curtiss III, director, Center for Infectious Diseases and Vaccinology, and Sudhir Kumar, director, Center for Evolutionary Functional Genomics, Biodesign Institute, discuss their projects. Information: (480) 727-0370.

■ Tuesday, July 8

"Meditation Made Easy-Practical Applications and Tools," noon-1 p.m., Mercado, Downtown Phoenix campus, 502 E. Monroe St., Phoenix. Speaker: Karen Danner, president and chief executive officer of Love Yourself Well Inc. R.S.V.P.: ASUlectures@asu.edu or (602) 496-1000.

■ Wednesday, July 9

Biodesign Institute Summer Internship Brown Bag Lunch Seminar, noon-1 p.m., Biodesign Auditorium. Frederic Zenhausern, director, Center Applied NanoBioscience, and Stuart Lindsay, director, Center for Single Molecule Biophysics, Biodesign Institute, discuss their projects. Information: (480) 727-0370.

Miscellaneous

■ Saturday, June 28

Twilight Tour, 7-8 p.m., Deer Valley Rock Art Center, 3711 W. Deer Valley Road, Phoenix. Admission: \$6.50 adults; \$3.50 students and seniors; \$2.50 children 12 and younger. Reservations and information: (623) 582-8007.

■ Tuesday, July 1

"Résumés and Cover Letters: Show 'em What You Got!" 3-4:30 p.m., Student Services Building (SSV) room 329. Sponsored by ASU Career Services. Information: (480) 965-2350.

■ Wednesday, July 9

"The Employment Interview: Be a STAR!" 3-4:30 p.m., SSV room 329. Sponsored by ASU Career Services. Information: (480) 965-2350.

Events and Performances

**Indicates tickets are available at ASU Gammage, Mill Avenue and Apache Boulevard, (480) 965-3434; ASU Kerr Cultural Center, 6110 N. Scottsdale Road, Scottsdale, (480) 596-2660.

■ Friday, June 27

"Disney's High School Musical," 7:30 p.m., ASU Gammage. Continues at 2 p.m. and 7:30 p.m., June 28; 1 p.m. and 6:30 p.m., June 29. **

Exhibitions

ASU Art Museum, Nelson Fine Arts Center – Regular hours: 11 a.m.-9 p.m., Tuesday; 11 a.m.-5 p.m., Wednesday-Saturday; 1-5 p.m., Sunday. Summer hours: 10 a.m.-5 p.m., Tuesday-Saturday. Information: (480) 965-2787.

Through Aug. 30, "Exploring Dreams: Images from the Permanent Collection" and "Ninth Annual Family Fun Day," July 12, 10 a.m.-2 p.m. "Exploring Dreams" presents artwork that echoes the dreamlike, surreal images encountered in the depths of sleep and in the shades of waking. The exhibition examines the concepts and science of dreams, what dreams are, and their purpose and meanings. To further enhance viewers' experiences, hands-on and informational activities in the gallery encourage visitors to explore their own dreams through images and text. Family Fun Day will be a dream-inspired day with activities such as making dream-catchers and other dream-inspired arts and crafts, and dance, music and theatrical performances in partnership with CONDER Dance, AZ Opera in a Box, and other local groups and volunteers. Eight/KAET-TV will bring a favorite character for photos with children. This event is made possible in part through an investment by IKEA, Changing Hands Bookstore, the ASU Art Museum Advisory Board and the Friends of the ASU Art Museum.

ASU Art Museum Ceramics Research Center – 11 a.m.-5 p.m., Tuesday-Saturday, Tempe Center.

Through Aug. 2, "Susan Beiner: Synthetic Reality." This ambitious, room-sized installation explores the artist's concerns of genetically altered foods, cloned animals and the hybridization of the material world. Information: (480) 965-2787.

ASU Gammage – 1-4 p.m., Monday. Information: (480) 965-6912.

Through June 29, photographs by Edward L. Davies, and museum-quality canvas and archival ink artworks by Cooper Downs.

Deer Valley Rock Art Center – 9 a.m.-5 p.m., Tuesday-Saturday; noon-5 p.m., Sunday. 3711 W. Deer Valley Road, 2 miles west of I-17. Information: (623) 582-8007.

Through Sept. 1, "Land of Fire, House of the Sun: Award-Winning Rock Art Photography." This exhibit features a stunning array of rock art photographs from

the Coso Mountains in California.

The Galleria – 8 a.m.-6 p.m., Monday-Friday, located in Mercado Building C, 502 E. Monroe St., Phoenix. Information: (602) 496-1500.

Through June 30, "Two Generations of Photography." Opens July 1, "Arizona and Beyond." A colorful exhibit of photography and digital paintings by Apache Junction artist Edith Nye, highlighting local flowers, plants and scenery. Artlink First Fridays participant July 4, 6-9 p.m.

Harry Wood Gallery – 9 a.m.-5 p.m., Monday-Thursday; 9 a.m.-3 p.m., Friday, Art Building, first floor. Information: (480) 965-3468.

Through Sept. 5, "Annual Juried MFA Summer Exhibition." This juried exhibition is open to all enrolled master's degree in fine arts students, working in any media. Jurors are selected by the Gallery Exhibitions class from among local and regional arts museums, as well as gallery directors and curators.

Hayden Library Rotunda – normal library hours. Information: (480) 965-6164.

Through Sept. 30, "Surveying Arizona: Select Photographs from the Arizona Historical Foundation Collection." This exhibit features more than 40,000 photographs from the Arizona Historical Foundation.

Hayden Library Labriola National American Indian Data Center – 11 a.m.-5 p.m., Monday-Friday and by appointment. Second floor, Hayden Library. Information: (480) 965-6490.

Through Aug. 8, "Pow Wow: Arizona and Beyond." In celebration of ASU's annual Pow Wow, the Labriola Center exhibits photographs by local artists Ann Leonard and Patricia Etter from three Pow Wows.

Defenses

David Erkens, PhD, Acc., 9 a.m., June 27, BA 257.

Martin Mende, PhD, Bus. Adm., 9 a.m., June 27, BAC 440.

Jonathan Davis, PhD, Bio., 1 p.m., June 27, LSA 109.

Mumin Tufan, PhD, Curr. & Instr., 2 p.m., June 27, ED 425.

Donald Bale, PhD, Ed. Ldrship and Pol. Stu., 10:30 a.m., July 1, ED 312.

Mohammad Alam, PhD, Ind. Engr., 3 p.m., July 1, GWC 510.

Wai-Ying Chow, PhD, Psy., 2 p.m., July 3, PSYN 231.

David Pegram, PhD, Curr. & Instr., 4:30 p.m., July 3, LL 316.

Amanda White, PhD, Fam. & Hum. Dev., 9 a.m., July 10, COWDN 105.

Xin Zhang, PhD, Comp. Sci., 10 a.m., Jul. 10, BYENG 210.

Nicholas Schweitzer, PhD, Psy., 1 p.m., Jul. 10, LAWLB L-101.

Yu-Kyong Choe, PhD, Spch. and Hrg. Sci., 10:30 a.m., Jul. 11, COOR 3301.

Valentina Canese Caballero, PhD, Curr. and Instr., 1 p.m., Jul. 11, FARMER 425.

Jeanine Cordova, PhD, Chem., 3 p.m., Jul. 11, PSC-101.

EMPLOYMENT

The following positions are available as of June 27 and are subject to change. All positions will be advertised in *Insight* only once. The staff requisition or job order number for each position is indicated by the (#) sign. ASU is an equal opportunity-affirmative action employer.

ASU POSITIONS

A complete job announcement for classified, administrative and service professional positions at the Downtown Phoenix, Polytechnic, Tempe and West campuses is available on the Human Resources Web page at www.asu.edu/asujobs, or the Telecommunication Device for the Deaf at (480) 965-3002.

For complete position descriptions and application requirements for academic positions, contact the appropriate department listed below. Faculty, academic professional and graduate assistant positions are also listed on the Human Resources Web sites and details must be obtained from the hiring department. Application deadlines are listed.

Dates listed are application deadlines, and application material is due by 11:59 p.m. on that date. Positions are 100 percent, full-time employment (FTE) unless otherwise noted. Codes below are: (O) – position is open to the public; (L) – position is limited to current ASU, Northern Arizona University, University of Arizona and Arizona Board of Regents employees.

STAFF POSITIONS

TEMPE CAMPUS

Professional

Academic Success Specialist (O) #17473 – W. P. Carey School of Business/Undergraduate Programs (July 3).

Academic Success Specialist (O) #17480 – College of Liberal Arts and Sciences (July 14).

Academic Success Specialist (O) #17528 – Community College Relations within the Office of the Senior Vice President for Academic Affairs (July 7).

Academic Success Specialist-Mechanical and Aerospace Engineering (O) #17463 – Ira A. Fulton School of Engineering-Department of Mechanical and Aerospace Engineering (July 2).

Accounting Associate (O) #17466 – Residential Life (July 7).

Business Operations Manager (O) #17542 – VP-Research and Economic Affairs (July 7).

Business Operations Manager Senior-Mechanical and Aerospace Engineering (O) #17444 – Ira A. Fulton School of Engineering-Department of Mechanical and Aerospace Engineering (July 2).

Coordinator K-12 Outreach (O) #17516 – Ira A. Fulton School of Engineering (July 7).

Development Officer (O) #17479 – College of Liberal Arts and Sciences-Advancement (July 21).

Development Officer Senior (O) #17476 – College of Liberal Arts and Sciences-Advancement (July 21).

Editor Assistant (O) (part-time) #17502 – VP University Administration (July 2).

Grant/Contract Coordinator (O) (part-time) #17506 – College of Liberal Arts and Sciences-Psychology Prevention Research Center (July 8).

International Student Service Assistant (O) #16940 – International Student Office (July 3).

Management Analyst Senior (University Architect Office) (O) #17504 – University Services (July 2; every week thereafter until search is closed).

Management Research Analyst (O) #17520 – Executive VP and Provost of the University (July 31).

Payroll Compliance Specialist Senior (O) #17477 – Office of Human Resources-Payroll Department (July 2).

Specialist (O) #17597 – College of Design (July 3).

Technical Support Analyst (O) #17554 – Barrett, the Honors College (July 7).

Technical Support Analyst Associate (O) #17549 – Business Technology Services (July 7).

Undergraduate Business Career Coordinator (O) #17284 – W. P. Carey School of Business/Undergraduate Programs (July 2).

Technical and computer

Chief Engineer Broadcast/Information Technician (O) #17508 – Eight/KAET-TV (July 15).

Research/Lab Assistant (O) #17507 – Biodesign Institute (July 3).

Theater Technical Assistant (O) (part-time) #17495 – Public Events (July 7).

Administrative support

Office Assistant/Receptionist (O) (part-time) #17449 – College of Law (July 1).

Office Assistant/Receptionist (O) #17482 – College of Liberal Arts and Sciences-Department of Religious Studies (July 7).

Service/field craft/maintenance

Building Attendant-Second Shift (Facilities Management) (O) #17425 – University Services (July 2; every week thereafter until search is closed).

Custodian Lead-Weekend Shift (Facilities Management) (O) #17526 – University Libraries (July 11; every week thereafter until search is closed).

Electrician-Repair & Maintenance Second Shift (Facilities Management) (O) #17308 – University Services (July 2).

General Maintenance Mechanic Lead (Residential Life Services, Facilities Management) (O) #16530 – University Services (July 7).

Groundskeeper (Facilities Management) (O) #17279 – University Services (July 9; every week thereafter until search is closed).

HVAC Refrigeration Technician, HVAC Services (Facilities Management) (O) #17411 – University Services (July 27; every week thereafter until search is closed).

DOWNTOWN PHOENIX CAMPUS

Professional

Nina Scholars Program Director (O) #17525 – College of Public Programs (July 7).

Research Technician (O) (part-time) #17523 – College of Nursing & Healthcare Innovation (July 2).

Administrative support

Library Supervisor (O) #17551 – University Libraries (July 14).

POLYTECHNIC CAMPUS

Professional

Editor Assistant (O) #17460 – Polytechnic campus (July 2).

WEST CAMPUS

Technical and computer

Manager Information Technology #17413 – Applied Behavioral Health Policy (July 7).

Administrative support

Administrative Assistant 14744 – College of Teacher Education and Leadership (May 12).

ACADEMIC POSITIONS

TEMPE CAMPUS

Assistant/Associate/Full Professor #9173 – Mary Lou Fulton College of Education-Psychology in Education (Sept. 30; every two weeks thereafter until search is closed).

Faculty Associate #P5048 FTE 49% – Herberger College of the Arts-School of Art (July 15; every month thereafter until search is closed).

WEST CAMPUS

Full Professor of Management/Chair-Department of Management – Sept. 30; every two weeks thereafter until search is closed.

Sage Scholarship gives Watjen opportunity to see Laos firsthand

By Judith Smith

Laos is a poor, landlocked country in Southeast Asia with a per-capita income in 2007 of \$710. Most of its population lives on subsistence farming, and it has a tropical monsoon climate, according to a U.S. State Department report.

It's worlds apart from Paris, London and Rome, the more familiar destinations for travel abroad.

But ASU's Meg Watjen was overjoyed when she learned that she was the winner of the 2008 Sage Family Southeast Asian Studies Scholarship, which provides for a six-week summer study in Laos.

Watjen, an anthropology major, plans to study the diffusion of chili peppers from South America and Central America to Southeast Asia. She'll use her research from Laos – and from Indonesia in previous trips – to write an honors thesis.

"It's only in the last 500 years that chilies have arrived, yet they are a central part of Southeast Asian cuisines," she says. "They are used differently in different countries, so this is one thing I will look at. Another is how they arrived in each country. I will compare the island of Indonesia, influenced by thousands of years of sea trade, to landlocked Laos, which received influences via land and river routes."

Watjen will conduct her study by going to cooking schools and markets.

"I'll spend approximately two weeks in both Vientiane and Luang Prabang," she says. "Both have cooking schools – though

these are for the most part just informal restaurants that teach you to cook your own food, and then you sit down and eat it."

She also hopes to study with a well-respected cook in Laos named Vandara Amphayphone, whom she read about in *Trippin'Mag*.

Watjen says she applied for the Sage Family Scholarship because "I am working on a Southeast Asian (SEA) studies certificate through the Center for Asian Research, and I am focusing on SEA for my honors thesis project."

"Though I have spent a little time in SEA, I have never been to Laos but have heard fantastic things about it and the people there," she says. "I am very excited about the opportunity and most grateful that Mr. Bill Sage has continued to support ASU students who wish to travel to Laos."

Last year's winner, Rebecca Townsend, says she wanted to study in Laos because she was considering a career path involving Southeast Asia.

"I was particularly intrigued by Laos because it isn't as well known in the United States compared with Thailand or Vietnam," Townsend says. "A lot of people thought I was a bit crazy for wanting to go, but it wasn't at all the experience many people imagine when they think of less-developed countries."

"The Lao people were, of course, very friendly, but one of the things that struck me the most was the pride they had in their country and culture. I think Americans, myself included, tend to view the world through Western eyes."

Townsend will begin the master's of Southeast Asia program at the University of Michigan in the fall.

James Rush, a professor of history who oversees the Sage Scholarship, says that the most important thing about the scholarship is that "it provides an opportunity for an ASU student to gain an in-depth exposure to Laos during an extended study tour."

"Although recipients do execute a specific project in Laos, the larger value of the experience lies in traveling throughout the country and being exposed to its variety and beauty, becoming acclimated to Laos's tropical climate and human habitat, meeting and living with Lao families, and being exposed to aspects of Lao culture – including language, food, religion and social customs," Rush says. "Travel like this can be transformative."

Sage, who endowed the scholarship four years ago, received a degree in political science from ASU. He worked for the Agency for International Development in Laos, building new schools and putting Lao youth into Ministry of Education training programs in preparation for teaching in rural areas of northwest Laos.

When he returned to the United States in 1975, he began working with Lao refugees in California.

The Sage Family scholarship is a tribute to Sage's parents, Lloyd G. and Twyla M. Sage, "who gave me the opportunity of going to ASU," he says.

Smith, with Media Relations, can be reached at (480) 965-4821 or jps@asu.edu.

Growing use of nanomaterials spurs research

By Joe Kullman

Potential risks from the use of nanomaterials will be explored by three ASU engineering faculty in a project supported by a \$400,000 grant from the U.S. Department of Energy Office of Biological and Environmental Research.

Nanomaterials are becoming more prevalent in our lives each day. These are particles of less than 100 nanometers – less than one one-thousandth the width of a human hair – composed of metals, carbon, polymers or semiconductors. They are increasingly used in clothes and cosmetics, plastics and cleaning solutions, skin lotions and bandages.

Nanoparticles offer an array of benefits, including:

- They have been found to effectively improve methods of cleaning up water pollution.
- They are helping produce medical advances by acting as carriers of medicinal drugs to specific parts of the body for fighting cancer.
- They are used to strengthen plastics and rubber, to make clothing more durable, sunscreen lotions more protective and antibacterial solutions more potent.

But while the properties of nanoscale materials can improve such products, there's growing concern about the impact of some nanoparticles when they find their way inside our bodies or out into the environment.

"We are exposed to engineered nanomaterials through our skin, eyes, nose and mouth," says Jonathan Posner, an assistant professor in Department of Mechanical and Aerospace Engineering and the Department of Chemical Engineering in ASU's Ira A. Fulton School of Engineering. "They get transported into waterways and soils. And we are just not certain if they are detrimental in any way."

Posner's partners in the research project are Paul Westerhoff, professor and chair of the Department of Civil and Environmental Engineering, and Trevor Thornton, a professor in the Department of Electrical Engineering.

They will examine how and where nanomaterials get transported, and what environmental and biological risks the materials may pose.

"This research will provide government and industry policy-makers essential information to arrive at prudent decisions about the safest ways to regulate, handle, dispose of and manage nanoscale materials in the environment, as well as the potential for using nanomaterials in medical therapies," Posner says. "To the best of our knowledge, there is no research currently addressing these specific issues."

The effort will require gaining an understanding of how nanomaterials are partitioned, or separated – particularly in liquids – and how to precisely measure the partitioning and model the process.

For an analogy of this type of partitioning, Posner says, think of salad dressing.

"If you shake up Italian salad dressing, you mix together oil and

water and spices," he says. "But if you let the dressing sit a while, the oil and water separate into phases. The oil moves to the top and the water to the bottom, because they are immiscible (incapable of being mixed) and have different densities. So, then, where do the spices go? A question like that is important when considering the fate and transport of nanomaterials in the environment and the human body. Partitioning is basically a measure of where the spices go: into the oil or the water."

"For instance, partitioning determines where nanomaterials end up in the body, such as in the blood, kidneys, brain or in fat tissue. In the environment, one would be concerned with what fraction of the nanomaterials ends up in the waterways, soils or biomass. Partitioning measurements are typically made for pesticides and pharmaceuticals before they are mass-produced, so that we can better understand where they end up."

Thus, with the rising use of nanomaterials, he says, "We need to be able to predict their fate, to know how they might break up and how and where they get transported."

There are particular questions about the interaction of nanoparticles with human body cells. Some particles may tend to gather on the protective membranes that wrap around the body's cells. There is concern that the particles could weaken the membrane, causing it, in effect, to leak and harm – or even kill – cells. It also is not well understood how – or if – nanoparticles enter cells.

Studies of such possible effects have so far been largely inconclusive and sometimes contradictory, Posner says.

The ASU research project is designed to overcome that problem by devising methods to more closely determine the behavior of nanoparticles. That includes developing microfluidic technologies to measure partitioning, transport and toxicity.

Nanoparticle partitioning experiments will provide a foundation for developing screening tests for environmental toxicology and for predicting the behavior of the particles in the environment and the human body.

The project reflects the complexity of trying to grasp the environmental impact of nanotechnology, says Thornton, who also directs the Center for Solid State Electronics Research at ASU.

"This work combines faculty and student research assistants from three areas of engineering: electrical, civil and mechanical," he says. "It exemplifies the interdisciplinary knowledge necessary to understand nanotechnology and the kind of collaborative approach to research that is taking place at ASU."

The project, Posner adds, "will build on the very strong nanotechnology research already going on at ASU."

A wide range of nanotechnology research includes projects funded by the Environmental Protection Agency focusing on the toxicology of nanomaterials, as well as on using nanomaterials to treat water.

Kullman, with the Ira A. Fulton School of Engineering, can be reached at (480) 965-8122 or joe.kullman@asu.edu.



Jonathan Posner

Mahalov takes aim to reduce air travelers' turbulent times

Anyone who frequently travels by airplane has likely experienced clear-air turbulence. It's the kind of jarring turbulence that can quickly turn a smooth flight into a bumpy ride, often causing aircraft to drop anywhere from a few feet to thousands of feet within seconds.

A recently awarded \$716,000 grant from the Air Force Office of Scientific Research will fund research by ASU professor Alex Mahalov aimed at reducing those anxious moments for air travelers.

Mahalov also will study another kind of atmospheric turbulence that poses problems for astronomers.

Optical turbulence results from the amplitude and phase fluctuations in electromagnetic waves propagating through the atmosphere, which is what causes stars to appear to "twinkle." It also is a major source of telescope image degradation, making it difficult for astronomers to get clear views into space.

Mahalov is a professor in the Department of Mathematics and Statistics in ASU's College of Liberal Arts and Science, with a joint appointment in the Department of Mechanical and Aerospace Engineering in the university's Ira A. Fulton School of Engineering.

Mahalov, working in the engineering school's Center for Environmental Fluid Dynamics, will use funding from the grant over a three-year period to improve techniques for identifying, forecasting and detecting areas of clear-air turbulence and modeling of optical turbulence under extreme environmental conditions.

He will collaborate with experts at the National Center for Atmospheric Research in Boulder, Colo., on improving the ability of numerical codes to forecast clear-air turbulence, particularly in areas of mountainous terrain.

"Improved real-time predictability and forecasting of high-impact, clear-air turbulence events will minimize the potential for costly devastation to human life and loss of business assets," Mahalov says.

He also will work with astronomers at the observatories at Mauna Kea in Hawaii on using adaptive optics to reduce telescope image degradation caused by atmospheric optical turbulence.

Mahalov works with ASU's high-performance computing group on creating real-time, high-resolution environmental forecasts. When researchers study multi-scale dynamics over a relatively limited geographic area, he explains, they need to use high-resolution models to produce accurate predictions.

For more information, contact Joe Kullman, media relations officer at the Ira A. Fulton School of Engineering, at (480) 965-8122 or joe.kullman@asu.edu, or April Johnson at the Center for Environmental Fluid Dynamics at (480) 965-5602.

Grad student earns award for graphics know-how

By Stephanie Patterson

Bemly Randeniya, a graphic information technology graduate student at ASU's Polytechnic campus, recently earned \$1,500 for placing first in the GEF/Flint Group Technical Writing Contest. He will have his essay published in the August issue of *GRAVURE Magazine*, a leading publication for the rotogravure industry, a printing process that engraves images onto cylinders for high-volume production.

Randeniya, an international student, also will be honored in September at the Gravure Association of America's annual Leadership Summit in New Jersey.

Randeniya rose from production assistant to deputy production manager for the Associated Newspapers of Ceylon Limited in Sri Lanka. When he decided to further explore the field of printing, Randeniya transferred to ASU at the Polytechnic campus, in part on the reputation of Thomas Schildgen, chair of the Department of Technology Management, and partly for the Arizona weather.

Randeniya says he valued having a mix of practical and theoretical experiences in his program, but he credits the guidance given by one of his professors the most.

"Dr. Howard Nelson's direction helped me

achieve this national-level accomplishment," says Randeniya, who also received a gold medal in graphic reproduction photography certification from the Sri Lanka Institute of Printing.

Randeniya, who is active in his community, is a founding trustee of Karuna Trust, a non-governmental organization dedicated to improving the living standards of people in Sri Lanka.

He has six credit hours left to complete his degree and hopes to graduate in December.

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Stout's enthusiasm in classroom earns distinguished teaching award honors

(Continued from page 1)

The institute brought together 22 pairs of committed educators – one senior, one junior – to train together. Stout's partner teacher is Shelley Haydel, an assistant professor in School of Life Sciences and a researcher in the Biodesign Institute at ASU. Haydel teaches two undergraduate courses – “Medical Bacteriology” and “Pathogenic Microbes” – and studies tuberculosis and the antibacterial effects of clay minerals.

Like Stout, teaching is a focus for Haydel.

“I try to create an environment that instills a desire within students to learn, respectfully ascertain the learning capabilities of each student and promote collaborative and holistic learning experiences,” Haydel says. “Attending the summer institute will help

me identify and develop new strategies to improve undergraduate educational experiences and bring these new tools back to share with other instructors at ASU.”

Stout and Haydel expect to return with new ways to incorporate scientific teaching principles of active learning and assessment into their classrooms and attract more diverse students into research. In addition, the institute focuses on developing mentoring skills to pass along to postdoctoral fellows and teaching assistants, and to enrich graduate curriculum in teaching.

The National Academies Summer Institute harbored one surprise around mentoring for Stout. Her former undergraduate student, ASU alumna Clarissa Dirks, now an assistant professor of biology at Evergreen State College and herself a 2004 Summer Institute participant, assisted her and Haydel's instruction.

“Mentoring and caring are the keys to everything, not just science,” Stout says. “And one of the most gratifying things about teaching or mentoring is when your student goes on to exceed you.”

The National Academies Summer Institute was organized by the National Research Council of the National Academies in partnership with the Wisconsin Program for Scientific Teaching at the University of Wisconsin, Madison. It's supported by the Howard Hughes Medical Institute, Research Corporation, the President's Committee on the National Research Council and the University of Wisconsin-Madison.

Coulombe, with the School of Life Sciences, can be reached at (480) 727-8934 or margaret.coulombe@asu.edu.

ASU designs program to address statewide shortage of speech pathologists

(Continued from page 1)

very bright, successful students in the master's program. It's not a matter of having enough students who are interested and are in the field as much as it's having enough resources to provide the training programs for those students.”

One of the graduate students in the program, Monica Avina, chose PEP for its flexible class schedule and benefits.

“It's a wonderful program if you want to pursue a master's degree, and you aren't the typical age of most college students,” she says. “It's also great because it allows you to continue working and still get a degree part time.”

Courtney Petersen, another student enrolled in the program, says she feels more confident in her ability to do her job because of the on-the-job clinical training.

“I was able to learn more about the type of tools I could use to implement therapy through the great examples of experienced speech-language pathologists,” Petersen says. “I know I have so much more to learn, but at least I know I'm on the right track.”

The scope of speech language pathology has expanded in the last several years, Bacon says.

In a master's degree program, students “must learn the research that guides clinical practice for a variety of communication

disorders that affect individuals from birth to old age,” she says.

The Arizona Department of Education hopes this program will increase the number of qualified speech-language pathologists to accommodate the overwhelming need.

“We are really committed to the highest-qualified person working with our students,” says Miriam Podrazik, director for the Comprehensive System of Personnel Development at the Arizona Department of Education. “If ASU could concentrate on a cohort of master's degree students, it would help increase the skill level of these people. We are tremendously grateful to

ASU for providing this program.”

ASU strives to increase its community reach by providing technicians a place to advance their career while still making a difference, Bacon says.

“People choose this profession to make a difference in children's lives,” she says. “This program really embeds ASU in the community and allows us to affect the shortage of speech-language pathologists directly.”

More information can be found online at shs.asu.edu.

Velasco, with the College of Liberal Arts and Sciences, can be reached at (480) 965-1156 or erica.velasco@asu.edu.

In BRIEF

Revision updates departments' Web sites

The new University Administration/Business and Finance Web site, <http://uabf.asu.edu>, will launch June 30. The Web site aligns the university administration and business and finance departments' Web sites, creating a more functional, user-friendly site for the ASU community. It is designed to help visitors locate information, tools and services faster and more efficiently.

To provide feedback about the new Web site, send an e-mail to btsweb@asu.edu.

Fellowship pays tribute to Haggerson

Phoenix's American Indian College is establishing the Nelson Lionel Haggerson Fellowship to pay tribute to ASU professor emeritus and Fulbright scholar Nelson L. Haggerson for his more than 25 years of mentorship, community service, and international scholarship and expertise.

Selected Haggerson Fellows will display excellence in leadership and service to American Indian College, an accredited college endorsed by the Assemblies of God Church that serves Native Americans and other minorities.

Preschool program has openings for fall

The Mary Lou Fulton College of Education Preschool has openings in the fall for its 7:30 a.m.-5 p.m. Monday-Friday Extended Day Preschool Program and its 8:30 a.m.-3:40 p.m. Abbreviated Day Program.

The preschool is available for children ages 3-5 who are toilet trained, and this program is accredited by the National Association for the Education of Young Children.

The preschool is located in the Farmer Education Building, room 104, on the Tempe campus.

For more information, call (480) 965-2510 or visit the Web site <http://education.asu.edu/about/preschool.dot>.

Devils' Workshop returns to ASU July 8

The second annual summer edition of the Devils' Workshop – Summer Showcase – featuring ASU staff members will take place during various noon hours July 8-Aug. 8, in two locations: Organ Hall and Piper Writers House.

Concerts in Organ Hall will take place from 12:10 p.m. to 12:50 p.m., July 9, 16, 23 and 30.

Artist demonstrations and talks and literary readings will take place in Piper Writers House, also from 12:10 to 12:50, on dates to be announced.

Performing at Organ Hall will be William Swayze, piano and organ; Gary Quamme and Kevin Snow, organ; vocalists Rob Spindler, Bonita Power and Kristen LaRue; and Native American flute player David Webb. Tenisha Baca will give a dramatic reading. The schedule will be announced soon.



A look back to the past

This University Archives photograph shows how the view north from Old Main looked long ago. In 1897, the main entrance to the Tempe campus was Eighth Street (University Drive), which led to the Main Building. The structures seen at the foot of the Tempe Butte were part of the Mexican community of San Pablo, which was established in 1873.

PHOTO COURTESY UNIVERSITY ARCHIVES, ARIZONA STATE UNIVERSITY LIBRARIES

Artists signed up so far to demonstrate and discuss their arts and crafts are Erica Velasco and Richard Henne, photography; Cynthia Milberger, ceramics; Nancy Lesko, pounded flower art; Karen Lamb, hand-made greeting cards; Laura Toussaint, stamping; Jean Doig, lacemaking; Teresa Robinette, jewelry; and Jeanie Grim, knitted and crocheted arts. Reading will be Raye Thomas. Dates will be announced.

The festival is open to other staff who wish to participate. To sign up, contact Judith Smith at (480) 965-4821, or jps@asu.edu. Daily calendars will be posted on the summer Devils' Workshop site, <http://artfest.asu.edu>.

Female volunteers sought for wine study

The ASU Department of Nutrition is calling for female volunteers to participate in a study to determine the polyphenol absorption efficiency of and preference for different wines.

Participants must be females from 21 to 29 years of age who weigh more than 110 pounds and are moderate drinkers. People who are pregnant, who smoke or who are highly active are not eligible to participate.

The study involves three afternoon visits to ASU's Polytechnic campus, with each visit about two to three hours in length. Each visit will include consumption of one standard 5-ounce serving of wine in 15 minutes and the collection of three blood samples. A qualitative survey about the wine also will be administered. For more information, contact Kristen Rasmussen at (480) 727-1268 or kristenkrasmussen@gmail.com.

ASU undergrad receives spa scholarship

Michelle Bashore, a senior in the spa management certification program in the Department of Exercise and

Wellness in the School of Applied Arts and Sciences, has been announced as the recipient of a \$2,500 scholarship from the International Spa Association (ISPA) Foundation. Bashore topped the list of 18 applicants from 14 schools, winning unanimous selection by the ISPA board.

Bashore was accepted to the Polytechnic program in the spring semester of 2007 after transferring to ASU from Mesa Community College. Her background in cosmetology, including manicure arts and esthetics, heightened her interest in spa management.

The spa management program at ASU's Polytechnic campus is one of the first of its kind offered at a university. The program accepts a limited number of applicants per term and offers its students a combination of courses including small business accounting, marketing, personnel and leadership, as well as nutrition, lifetime fitness, stress management and massage therapy. Students also are required to complete an extensive internship at a resort or destination spa to gain hands-on experience in spa operation and administration. Bashore has excelled in the program, maintaining a 4.0 GPA and the respect of her instructors.

Crow's talk to employees available on Web

ASU President Michael Crow expressed his appreciation to ASU employees for their commitment and contributions during the Employee Recognition Celebration May 14 at Old Main on the Tempe campus, and a videotape of his address is available at the Web site <http://asunews.asu.edu/video-archive>. To view it, find the “5/15/08 Employee Recognition Celebration” listing and click the link.

This event is one component of the University Employee Recognition Program. For more information, visit the Web site www.asu.edu/recognition.

Liberal arts students receive dose of career skills from professionals

By Matt Crum

What's next after you take off that cap and gown? Answering that question is potentially more complicated for students earning their bachelor's degrees in liberal arts fields than in professional programs.

This spring, students in ASU's New College of Interdisciplinary Arts and Sciences received free training from professionals in the career planning field, along with advice from individuals in a variety of professions, to help them answer this and other career questions with confidence.

Trainers from Leathers Milligan-OI Partners led students through a series of workshops on topics such as assessing one's skills and interests, researching potential employers, résumé writing and interviewing skills. Leathers Milligan & Associates is the Arizona partner of OI Partners, a corporation of career consulting, executive coaching, leadership development and career transition professionals in 200 locally owned offices.

Student participants then gained career insights from panelists representing the public and private sectors in a series of panel discussions.

"The move from backpack to briefcase is a huge transition, and it can be quite intimidating," says Zabdy Montenegro, who just completed her bachelor's in psychology through New College, located on ASU's West campus. "Participating in this program gave me the tools and skills to help me walk into a job interview with confidence."

"The move from backpack to briefcase is a huge transition, and it can be quite intimidating."
— Recent ASU graduate Zabdy Montenegro

Montenegro says she received helpful practical advice about preparing for interviews and writing her résumé.

"I found out it's important for your résumé not simply to list what you've done, but to address the skills you've gained through your work and school experience," she says.

Her participation in the career preparation program has yielded results. Montenegro received three job offers and is in the midst of more interviews.

"Employers need graduates who are well-prepared to deal with the realities of the workplace, and this program enables students to be more knowledgeable and effective when engaging prospective employers," says Mark Leathers, founder and partner of Leathers Milligan-OI Partners and a member of the Dean's Advisory Council for New College.

A Leathers Milligan employee was taking a class taught by Elaine Jordan, New

College's director of college internships, when their discussions led to creation of the series of workshops developed in collaboration with ASU's School of Global Management and Leadership.

"We are grateful to Leathers Milligan and the panel participants for the time and expertise they have donated to this project," Jordan says.

Students said the training they received in how to describe themselves was particularly valuable.

"We believe industry leaders already see the value in hiring liberal arts graduates," Jordan says. "This program helps students fully understand and better articulate the immense value they bring to the business world. You could see them grow in self-esteem and confidence as the program went along."

"Confidence also comes from having a plan, knowing how to talk with potential employers and evaluate what the employer is saying to us," Leathers adds. "Students said they gained a sense of empowerment that they can be successful in finding the job that is right for them."

Gwen Scheetz, the Leathers Milligan senior consultant who conducted the workshops, describes the student participants as "gutsy" and willing to try out new skills, such as networking. "Not many job seekers enjoy networking at first," Scheetz says. "But having a chance to practice, as we did in the workshops, makes all the difference. We told the students that the only way to get good at this is through practice and more practice!"

Students had the chance to meet professionals from a range of public and private fields who volunteered to participate in panel discussions that Jordan coordinated. Panelists represented organizations including the city of Glendale, Great Scott Productions, Habitat for Humanity, the FBI, State Farm Insurance and others.

"It was a fantastic experience for the students to meet people from the professional community who took an interest in them," Jordan says. "Panelists shared their e-mail addresses with students and were generous with their time."

The final session Jordan held with students was a debriefing designed to look for ways to improve the program in the future. Already it's been a great success. Students evaluated themselves before and after the program and showed a 73 percent improvement in their ability to assess their skills, construct a résumé, interview, negotiate and network.

"The skills they learned will benefit these students not just in the short term but for years to come," Jordan says. "We're looking forward to helping a new group of students this fall."

ASU's New College of Interdisciplinary Arts and Sciences offers degree programs spanning the humanities, arts, and social and natural sciences. More information is available at <http://newcollege.asu.edu/>.

Crum, with *Public Affairs at the West campus*, can be reached at (602) 543-5209 or matthew.crum@asu.edu.

Experience aids Grunig in audit services role

By Julie Newberg

Question: What does ASU's University Audit and Advisory Services do?

Answer: It's an essential component of the way ASU conducts business, ensuring that university operations and administrative processes are conducted in an ethical and proper manner.

Tracy Grunig recently was hired as the new director of University Audit and Advisory Services, bringing significant experience in higher education and enterprise risk assessment to her role.

Enterprise risk assessment is a process that is designed to identify potential events that can affect an entity, and it spells out methods of managing the risks.

Grunig, a returning ASU employee who worked as the internal audit manager at the university, served as assistant executive director for the Arizona Board of Regents (ABOR) from 1993 to 1998. She is a certified public accountant and a certified fraud examiner.

"Tracy brings an unusual combination of prior experience, including industry, a 'big four' accounting firm and post-secondary educational institutions' audit departments," says Paul Ward, ASU's general counsel and vice president for university administration. "It's important to understand that all employees have a responsibility for internal controls and compliance with applicable laws, and ABOR and ASU policies and procedures. With her extensive experience, Grunig is able to bring her expertise in promoting ethical workplace behaviors."



Tracy Grunig

In a memo posted on the department's Web site, ASU President Michael Crow says that "Arizona State University is committed to observing the highest standards of ethical behavior so that Arizona's citizens may have confidence in the integrity of ASU. All members of the university community must recognize our shared responsibility of educating the future leaders of Arizona and the nation carries with it an obligation to adhere to fair, ethical and legal business practices."

In her new role, Grunig will ensure that ASU adheres to proper business practices by supervising financial, operational and compliance audits at the university, and by coordinating with ABOR's audit function. She also will direct advisory services with an educational component that offers personnel training to ensure good business practices, internal controls and separation of duties.

One of her primary goals is to enhance the relationship of her office with other areas within the university so that people feel comfortable coming to her to ask questions about business practices and day-to-day activities.

Grunig graduated summa cum laude with her master's of public administration degree from ASU, and she earned a bachelor's in business administration from California State University-Long Beach. She can be reached at (480) 965-5511 or tracy.grunig@asu.edu.

University Audit and Advisory Services is located at University Center, 1130 E. University Drive, suite 110. The general office number is (480) 965-1801.

Newberg, with *Media Relations*, can be reached at (480) 727-3116 or julie.newberg@asu.edu.

Center's classes boost students' Spanish skills

By Julie Newberg

Brushing up on Spanish skills and helping to make the world a better place are a few of the experiences that are possible for students who sign up for internships at the Community Learning Center on the ASU Downtown Phoenix campus.

Students who took advantage of the first internships offered last semester learned advanced Spanish skills from people taking classes at the center – and went beyond the call of duty when they developed new ideas for an advanced English class.

Three of the students – Miaka Golden, Jonathan Randel and Alexander Ritchman – recently were hired as facilitators for the center and were honored for their work at the recent Downtown Devil Recognition awards ceremony.

The Community Learning Center offers members of the community the opportunity to take online classes offered through the Instituto Tecnológico y de Estudios Superiores de Monterrey (el Tec) in Mexico,

Courses offered through el Tec cover topics such as statistics, math, business, science and health.

The classes are taught in Spanish and indigenous languages, with an English curriculum under development.

"El Tec offers more than 80 courses that are offered free to the community," says Rosa Molinar, executive coordinator for the Community Learning Center.

A few classes, such as a basic computer skills course, carry a \$30 fee.

More than 600 people use the courses offered through el Tec by taking classes at University Center, Washington Elementary School, Veda Frank Elementary School in Tempe or at home on their personal computers.

"Many of them are parents who want to help their children in school," Molinar says.

ASU students can earn credit hours through internships at the center by taking a SPA 484 class through the School of International Letters and Cultures in Tempe,

and facilitated by University College on the Downtown Phoenix campus. Interns help clients with subjects such as basic computer skills, learning English and HTML Web design.

Interns commit to working eight hours per week throughout the semester. Molinar counts the students as special individuals who are expanding their Spanish skills as they help educate an underserved population.

"The students learn how to work with low-income families," Molinar says. "Our participants often are afraid of the computer. These students helped them to not be afraid, and to navigate the Internet."

"The workload is less complicated because of the students. They have so much energy. They are motivated to work."

For information about internships, e-mail professor Barbara Lafford at blafford@asu.edu.

Newberg, with *Media Relations*, can be reached at (480) 727-3116 or julie.newberg@asu.edu.

Pickens chosen to lead major policy groups

By Maribel Pena

In the time frame from last fall to this spring, ASU Chief of Police John Pickens has seen his star rise in the ranks of two major organizations: president of the Arizona Association of Chiefs of Police (AACOP) and general chair of the university and college section of the International Association of Chiefs of Police (IACP).



John Pickens

In January, Pickens ascended to the position of president of AACOP. In this role as the principal executive officer, he provides general direction, supervision and control of the business affairs for the association. He has been a member of AACOP since 2000 and has advanced quickly since becoming fifth vice president in 2006.

"One of the things I like about AACOP is the ability to enhance cooperation and coordination among law enforcement agencies on the local, state and federal levels," Pickens says.

According to AACOP's Web site, the association's main purposes are to promote and enhance the cooperation and coordination between public and private entities in the interest of law enforcement, with a mission that focuses on dealing with personal issues, and to promote efficiencies in government, police professionalism and the maintenance of individual liberty.

In October, Pickens was named general chair of the university and college section for IACP, in which he is a lifetime member with more than 20 years of continuous service. Through October 2009, Pickens will preside over the section's meetings and represent the section in all official matters, along with his other duties.

In addition to being general chair, he also has been appointed to the National Law Enforcement Institute on Violence Against Women. This project of IACP is a national effort to coordinate and create new approaches to address and prevent domestic violence, sexual assault, stalking and human trafficking. He assists in promoting the institute while identifying strategies to improve partnerships within the university community to deal with sexual assaults.

"This is terribly important work, and it is especially appropriate to have representation from a university perspective on the Leadership Institute," says Paul Ward, ASU's general counsel and vice president for university administration. "We are fortunate that Chief Pickens will bring innovative approaches for investigating sex crimes to the ASU Police Department."

Pena, with *Media Relations*, can be reached at (480) 965-3502 or maribel.pena@asu.edu.

Law school seminar shines spotlight on timber, water management issues

By Janie Magruder

Students at ASU's Sandra Day O'Connor College recently spent five days exploring public lands and waterways in northern Arizona during a field seminar that added meaning to what they'd learned in the classroom last fall.

Professor Joe Feller led the five students in the Natural Resource Law Field Seminar to Glen Canyon Dam, the Kaibab Plateau, the Vermilion Cliffs National Monument and Mount Trumbull, located north of the Grand Canyon, in May.

The group was accompanied by professor Bret Birdsong of the William S. Boyd School of Law at the University of Nevada-Las Vegas and several UNLV law students.

The group focused on natural resource management issues, involving water, rangelands and forests.

"The idea is to give them in-depth knowledge of the issues that they study in class in an abstract sense and of the laws applicable to natural resource management," says Feller, who has offered the seminar for about 15 years. "You can't understand how these laws work without some on-the-ground contact."

No trip is ever the same, Feller says, pointing to a photo he took May 22 of fat snowflakes falling on the group. This year and last, the group viewed the devastation of a large wildfire on the Kaibab Plateau and talked about resulting resource management challenges. This year, they took a boat trip on the Colorado River, and discussed lawsuits and plans that have changed how the water is managed.

"The major water issue in the seminar is the flow, quality and temperature of the water of the Colorado River throughout the Grand Canyon, and how they affect wildlife – especially fish – in the canyon," Feller says. "Regarding timber, the Kaibab Forest has most of the Southwest's largest remaining stands of old, uncut trees, and the question is, 'How are these going to be managed, and how does that affect wildlife, primarily birds?'"

The students also explore management of ranges and how government plans affect livestock grazing, he says.

"I see a greater appreciation in our students," Feller says. "It's more of a citizen education than a career path for them, because there aren't a lot of jobs in public-lands management. Philosophically, it's part of a well-rounded education for them to understand the regulation of public lands, because they are part owners of the land."

The seminars have led to a major writing project for Feller, whose article, "Collaborative Management of Glen Canyon Dam: The Elevation of Social Engineering Over Law," will be published this summer in the *Nevada Law Journal*.

Feller's partners in the seminars are the Arizona Game and Fish Department and employees of the U.S. Department of the Interior's Bureau of Land Management and Bureau of Reclamation, the National Park Service, the U.S. Forest Service, the U.S. Fish & Wildlife Service, and the U.S. Geological Survey. Private partners include employees of the Grand Canyon Trust and the Museum of Northern Arizona.

These agencies have provided manpower, funding and materials. Years ago, Arizona Game and Fish gave Feller a grant for expenses and loaned them its cabin for participants' lodging. More recently, the seminar has been funded through proceeds of a lawsuit Feller and the National Wildlife Federation won in 2005 against the Bureau of Land Management (BLM) over management of a wilderness area in western Arizona.

"I'm always thankful and apologetic to the agencies that help us," Feller says. "We invite ourselves up there, and we have criti-

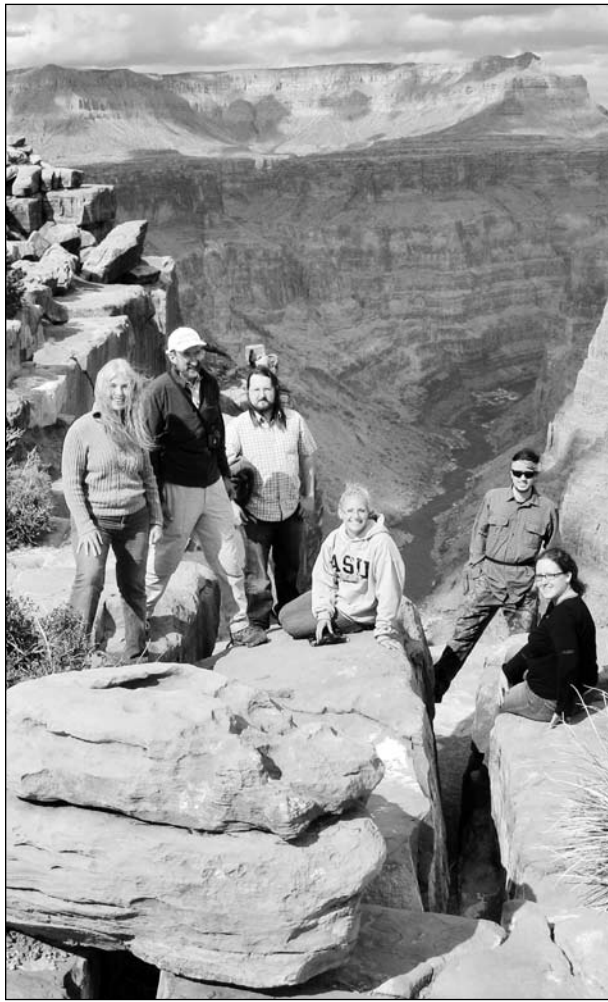


PHOTO BY BRET BIRDSONG

Professor Joe Feller, second from left, with Sandra Day O'Connor College of Law students, from left, Cathy Fine, Eric Templeton, Michelle Drury, Brian Webb and Erika Mansur at the Toroweap Overlook on the North Rim of Grand Canyon National Park.

cisms about how they are managing the land. The students and I come with a lot of questions, and the agencies have been very tolerant of that. And the BLM continues to host us, even though I sued them."

One of Feller's associates is Rick Miller, a wildlife habitat program manager for Arizona Game and Fish who, years ago, suggested that the seminar be expanded to include timber issues in addition to water and grazing. Miller says the seminar is unique among law schools, and that it's beneficial to students and wildlife managers.

"I expect some of these students over the years will be involved in politics, writing laws, and working for the state or the federal government, and having them knowledgeable about these issues will help keep them from going to the back burner," Miller says. "The benefit of Joe's program to natural resources is that the more information that people making the decisions have, the better these decisions should be."

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Matheson earns Jesse Udall Award

By Janie Magruder

Professor Alan Matheson of the Sandra Day O'Connor College of Law has received a prestigious award named for an Arizonan who was a dedicated public servant and a model for future lawyers.

Matheson, dean emeritus at the College of Law, received the Jesse Udall Community Service Award in May from the Phoenix chapter of the J. Reuben Clark Law Society, for providing significant service to the greater community.

Udall was a former chief justice of the Arizona Supreme Court, an officer in the U.S. and Arizona National Guards, a veteran of World War I and World War II, and a bishop, president and missionary president for the Mormon Church.

Judge Daniel A. Barker of the Arizona Court of Appeals, a past president of the Phoenix chapter, says Matheson's selection was an easy one.

"Alan has rendered a couple persons' lifetime of service," Barker says. "To us, he was an obvious choice. He's highly respected in the legal community, and he has been a great example for so many of us who believe in the rule of law and the role that faith plays in it."

Matheson says the award was unexpected.

"I was delighted to receive it, and I treasure it because of the organization and the wonderful attorneys who are members," says Matheson, who serves as the adviser for the student chapter of the J. Reuben Clark Law Society at the College of Law. "Their recognition is especially meaningful."

The society draws on the philosophy and personal example of J. Reuben Clark Jr., a Mormon lawyer who had a long and distinguished career, having worked for the U.S. Department of State, as a former U.S. Ambassador to Mexico and as a longtime counselor to president Heber J. Grant of the Church of Jesus Christ of Latter-day Saints.

Udall also had an impressive career, having served as Graham County attorney, a member of the Arizona Legislature and a superior court judge in Graham County. As a legislator, he sponsored a bill that established junior college districts in Arizona.

Udall, who retired as chief justice of the Arizona Supreme Court in 1972, died April 18, 1980.

Matheson, who knew Udall, calls him a "compassionate and able person and a wonderful role model." Udall also was fair-minded, and he recognized talent: years ago, when no one would interview – much less hire – Mary Schroeder, he employed her as a clerk. Schroeder later went on to become chief judge of the Ninth U.S. Circuit Court of Appeals.

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Alan Matheson

Recent ASU graduate takes helm of law school's pro bono office

By Janie Magruder

A recent law graduate with a rich background in social work who excelled in pro bono work and in participation in law student organizations has been named head of the department that oversees both functions at the Sandra Day O'Connor College of Law.

Kristine Reich, a 2008 alumna of the College of Law, has replaced K Royal as director of pro bono and community outreach. Royal recently resigned and moved to Texas, where her husband took a new job.

Reich is well-suited for her new position, having served on the boards of four student organizations at the College of Law and volunteered for three of the college's pro bono projects.

"Kristine's long career in social work, combined with her exemplary record in law school and her devotion to pro bono work and the pro bono program, made her the ideal candidate," says Patricia D. White, the college's dean. "Her creativity and energy will take our already vibrant program to new heights."

Reich was president of the pro bono board, and she was vice president of the Women Law Students' Association, the Sports & Entertainment Law Students Association and the American Association for Justice Student Organization. She worked with victims of domestic violence and other crimes, as well as with families struggling with legal problems.

"This opportunity is mutually a good fit for my aspirations to make a meaningful impact on the community by providing legal resources to underserved populations, and for the College of Law in having an employee who is dedicated to the university's goal of social embeddedness," Reich says.



Kristine Reich

Reich, who has an undergraduate degree in business administration and psychology from Grand Canyon University, in addition to a master's degree in social work from ASU, worked in child welfare and family services for 12 years before enrolling in law school. She has worked for Arizona Department of Economic Security, Aid to Adoption of Special Kids, the Behavioral Health Agency of Central Arizona and ASU's School of Social Work. She also served on three advisory committees commissioned in 2003 by Gov. Janet Napolitano to make recommendations on child-welfare reform.

"You get to the point in social work where the complexities and difficulties of working with

at-risk families and other social problems can be draining," Reich says. "I began to wonder what else I could do to build more skills and have more in my toolbox for being a more effective advocate. I decided I wanted to build my competency, and that having legal skills and a law degree would give me a better opportunity for having a seat at the table of decision-makers."

She says being a law student was one of the most challenging things she's ever done.

"Every day was a balancing test," says Reich, a married mother of two daughters who credits her family and friends with supporting her through law school. "I wasn't able to attend some of the social functions, but I did participate in student organizations, pro bono and moot court. And it was important to me to continue being 'cookie mom' for the Girl Scout troop – and to be there to watch my children at their gymnastics and swim meets."

"My journey at law school was pragmatic and mission-focused," she adds. "More than for the prestige of being in the top 10 percent of the class or for possible financial opportunities, it was important to me to learn and network as much as possible, and the pro bono opportunities and student organizations were a great way to do that. I also wanted as many experiences as possible of challenging myself to be judged, and the more I participated in moot court and pro bono activities, the more invaluable feedback I received."

Reich was outstanding in moot court competitions. She was the national winner of the American Bar Association's 2006 Representation in Mediation Competition, when she was a first-year law student. She also was a regional winner and national semifinalist in the ABA's 2008 contest.

Reich also placed in several other competitions, and she received the Janet M. Mueller Oral Advocacy Award – given for excellence in oral advocacy and moot court competition – at her graduation May 9.

Reich, who plans to take the Arizona bar exam this summer and to practice law eventually, says her goals are to sustain and build upon the success of the pro bono program coordinated by Royal. This year, law students contributed more than 73,000 hours of free legal and law-related services to the community, which was valued at more than \$7.3 million. Reich also plans to create new opportunities for law students to build relationships with the law community.

"K put her heart and soul into this job," Reich says of her predecessor. "I want to continue and improve upon her legacy."

Reich lives in Phoenix with her husband, Chris, and their two young daughters: Jordyn, 10, and 8-year-old Mackenzie.

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ASU researchers propose solution to controversial quantum conundrum

(Continued from page 1)

Electrons and other subatomic particles spin like tiny tops, complete with tilt, or "precession." Since there are an infinite number of angles at which an electron can tilt, there theoretically are an infinite number of values that a qubit can store. Practically speaking, however, the number of available values will be constrained by technology and other theoretical limitations of computer science.

Currently, researchers are hard-pressed to build even simple quantum computers. The problem is that quantum states are notoriously difficult to pin down and measure. Akis and Ferry's research, combined with that of former ASU colleague Jonathan Bird, could yield insights that help solve these problems.

Bird, now at the University of Buffalo, has made important strides toward measuring quantum states using "entanglement," a characteristic of quantum mechanics by which two quantum particles interact at a distance. His measurement technique is based on quantum states produced by electron-electron interactions.

"This is like the 'readout' of a spin," Akis says. "It all has to do with e-e interactions, but from a remote distance."

Bird's method is useful if it has something to measure and a theory to back it up, but electron-electron interactions are complex and poorly understood. Indeed, simple quantum mechan-

ics models often ignore electron-electron interactions entirely, instead relying on "one-electron approximation" models, which leave a number of questions unanswered.

Akis and Ferry were wrestling with one of the most controversial of these questions when they came up with a model that explained the electron-electron interactions Bird was measuring.

They immediately saw the potential.

"Bird's experiment is more than a pretty measurement," Ferry says. "There are indications that you could use this in quantum computing applications."

Their findings also could have important implications for quantum data storage. One way to store qubits is via a quantum point contact (QPC), which is the quantum equivalent of a computer gate. Generally, the quantum behavior of electrons is represented by a stair-step graph of the conductance of these gates. Usually, the steps are either twice or half of a particular conductance value, and they work just fine under a simple one-electron approximation model. Electrons are treated like bullets shooting through gates and not interacting with their other electrons.

These models fail to explain at least one odd case, however, which inspired the *Journal of Physics: Condensed Matter* to dedicate an entire issue to papers addressing it. The case breaks the usual pattern of QPC conductance plateaus, occurring at the 70 percent mark instead of half

or twice a particular conductance value.

Akis and Ferry skipped the one-electron approximation and showed that the odd behavior at the 70 percent mark was due to interactions between up- and down-spinning electrons. This explanation means that the oddball conductance plateau can be read using Bird's method and provides an explanation for the electron-electron interactions that the method measures.

"We all use the same basic ideas," Akis says. "Everyone agrees that you have to have e-e interactions or some manifestation of that. But the complete explanation is still kind of up in the air. A lot of it is based upon the model you use."

According to Akis and Ferry, electrons passing through QPCs react to them much as water would react to a series of hills and valleys. Electrons of one type of spin find it easier to clear these "hills" than electrons of the opposite spin, which mostly rebound away. Thus sorted, the particles that cleared the hills can be partially confined via a hole in the middle of the gate, resulting in a local spin polarization that can be measured via Bird's entanglement method.

"Bird's experiment is the kind of thing where you say to yourself, 'Well, this could start to nail down what's really going on,'" Akis says.

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Biodesign Institute researcher Rittmann offers insight on energy challenge

(Continued from page 1)

Rittmann, who leads many of Biodesign's sustainability-themed research projects. "Most critically, we need to be able to have bioenergy sources that work on a very, very large scale."

Besides the scalability issues of bioenergy, any technologies developed also must be able to produce energy while minimizing damage to the environment or affecting the world's food supply.

For Rittmann, the most obvious renewable-energy solution – one that passes the tests of scalability, environment and food – stems from the very factor that makes life on Earth possible: sunlight.

"The good news is that we have plenty of energy from the sun," Rittmann says. "Every day, the sun sends to the earth's surface about 173,000 terawatts of energy, or more than 10,000 times more that is used by human society. So, we have a lot of what we like to call 'upside potential' for capturing sunlight energy."

"When people think of capturing sunlight energy in biomass, they focus on plants, which are familiar. However, plants are quite inefficient at capturing sunlight energy and turning it into biomass that can be used as a fuel."

– Biodesign Institute researcher Bruce Rittmann

Up to now, harnessing the energy of the sun has proven to be technically and socially challenging. In particular, approaches to make biofuels from crops such as corn have been met with skepticism in recent days.

"When people think of capturing sunlight energy in biomass, they focus on plants, which are familiar," Rittmann says. "However, plants are quite inefficient at capturing sunlight energy and turning it into biomass that can be used as a fuel."

As a result, he says, plants could provide only a tiny fraction of our society's energy needs.

"Obviously, we need the plants for producing food and sustaining natural ecosystems," Rittmann says. "Plants simply fail the scalability, environmental and food tests."

In contrast, microorganisms – the smallest forms of life on Earth – can meet the scalability and environmental tests. Rittmann sees a vast untapped potential of using microbes in

service to society to meet our energy challenges.

"Photosynthetic bacteria can capture sunlight energy at rates 100 times or more greater than plants, and they do not compete for arable land," Rittmann says, adding that this high rate of energy capture means that renewable biofuels can be generated in quantities that rival our current use of fossil fuels.

In addition, non-photosynthetic microorganisms are capable of converting the energy value of all kinds of biomass, including wastes, into readily useful energy forms, such as methane, hydrogen and electricity.

"Microorganisms can provide just the services our society needs to move from fossil fuels to renewable biofuels," Rittmann says. "Only the microorganisms can pass all the tests, and we should take full advantage of the opportunities that microorganisms present."

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High school seniors see benefits from taking ASU college credit classes

(Continued from page 1)

"It was fun, not like a typical class," says Brian Gobster, a 2008 Corona del Sol High School graduate who took the Polytechnic engineering class and is enrolled at ASU for the coming fall. "We built a rocket and a robot, so we used our academic skills."

"I thought taking the class would help integrate me into the college setting, so I wouldn't be overwhelmed my first year. I'll have about 14 hours of college credit when I start ASU this fall, with this program and my dual credits."

Crystal Castro, who graduated from Maryvale High School in May, was intimidated when she enrolled in the criminal justice class at West last spring, but now feels more confident about attending ASU this fall. She is the first in her family to attend college.

"The course was pretty challenging, but I got through it," she says. "Now I know what to expect. I got to know the other students, and I enjoyed the class. It sets me apart, having some college credit. I feel better about coming to campus."

The cumulative grade-point average for their ASU coursework to date is 3.37. Three-quarters of the students have since gone on to ASU and maintained a GPA of 3.3.

"This gives students the chance to experience the academic rigor of a university, and to make an easier transition to college," says Antonia Franco, director of Access ASU. "They can see the wealth of opportunities ASU offers, meet other students and feel engaged and a part of the university."

"It also allows colleges to showcase their top programs in a meaningful way to high school students. Once students have a firsthand experience in the discipline, they can select a major with more certainty."

Brianna Burns, who just completed her freshman year at ASU, took Engineering 101 and 102 at the Polytechnic campus before graduating from Dobson High School.

She says the ASU courses were challenging but "extremely fun" – and that they solidified her choice of an engineering major.

"The courses were extremely helpful in teaching students how to work in teams, and the importance of teamwork

in completing complex projects," Burns says. "If I was still in high school, I would love the opportunity to take more ASU classes offered by the Collegiate Scholars program."

Anna Battle, principal at Desert Vista, was instrumental in bringing the program to her high school last year, along with Desert Vista technology chair Dan Zavalera. The two even worked with ASU to create a pre-engineering course, to prepare their top students for the rigors of a college class.

Next fall, Desert Vista will play host to another ASU engineering class, and may open it to students from other high schools.

"This is the very beginning of what we hope to be a huge relationship with ASU," Battle says. "We're in the baby stages, but we want to see it grow. We're excited about the possibilities. It's a new type of partnership, one that benefits our students and our teachers. We're looking at working with other units at ASU, to give opportunities to all types of kids."

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Gold-medal editorial director Storad wins Glyph Award for Best Book

(Continued from page 1)

book "Don't Call Me Pig!"

Although his children's books are not directly connected to ASU, he considers promoting science and nature literacy as one of his essential duties as editor of ASU Research and *Chain Reaction*, a free educational publication that brings ASU science and research to young readers and classrooms throughout Arizona and across the United States.

"The idea to create *Chain Reaction* grew out of my work as a children's author and through many conversations with elementary and middle-school teachers, reading specialists and librarians," Storad says.

His book "Meerkats" was the first children's book to ever garner the Best Book

Award from the Arizona Book Publishing Association.

"The judges liked it because it presented facts and interesting information in a fun and entertaining manner for young readers," he says. "The photography in the book is also quite excellent."

Storad says he watched many episodes of the popular Discovery Channel program "Meerkat Manor" in conducting background research for the book. The book is just one of more than 100 titles in the Early Bird Nature Book series published by the Lerner Publishing Group in Minneapolis, Minn. Storad has written many titles for that series, including four new ones: "Gila Monsters," "Javelinas," "Galapagos Tortoises" and "Piranha."

The gold medal given to Storad and his

staff for ASU Research Magazine was one of 28 awards given to the Research Publications staff for their work in 2007-2008 alone. (See "ASU Research Magazine: Best in the nation" on page 2 of the June 13 issue of *ASU Insight*.)

"I am blessed to work with the most talented staff on campus," Storad says. "We always strive to make each new issue of our magazines better than what we've done in the past. We know we do good work, but it is a bonus when that good work is recognized by those in the publications profession who know that top quality publications do not produce themselves."

"Meerkats" was selected May 10 as the Best Book at the Arizona Book Awards. The black-tie event was conducted by the Arizona Book Publishing Association. Eli-

gible works must have been published in 2007 by an Arizona author or publisher, or must be primarily set in or about Arizona.

Winners and finalists were awarded Glyph Awards in 34 different categories. Award-winning Arizona author Jewell Parker-Rhodes was the emcee for the event.

Storad is working on two new books: "Mars" and "The Rattlesnake Rules." The first is part of the new Early Bird Astronomy book series, and the book is geared toward readers in grades 2-4. "The Rattlesnake Rules" is a new picture book that should be ready for sale early next year.

"Everyone has rules to live by," Storad says. "Even rattlesnakes."

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Stowe receives Governor's Heritage Preservation Honor Award

By Erica Velasco

ASU professor Noel Stowe has been honored for his outstanding achievements in preserving Arizona's historic resources through the public history program he guides at the university.

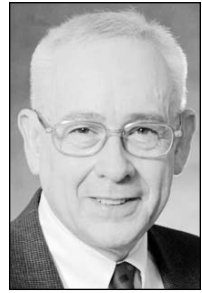
He received the 2008 Governor's Heritage Preservation Honor Award and was recognized June 13 at the Arizona Statewide Historic Preservation Partnership Conference.

"Noel Stowe has worked tirelessly as a public historian to preserve historic documents, archives and monuments," says Deborah Losse, dean of humanities in the College of Liberal Arts and Sciences. "His knowledge and commitment have helped Arizona preserve its heritage. The award is a well-deserved recognition of his contributions."

Stowe was nominated for the honor by William Collins, deputy state historic preservation officer. Collins, an ASU alumnus, earned a bachelor's degree in history and economics in 1986, a master's degree in economics in 1990 and a doctorate in history in 1999.

"The Governor's Heritage Preservation Honor Award will be presented to professor Noel Stowe

in recognition of his years of service as founder and guiding spirit behind the ASU Department of History's Public History Program," Collins says. "Over the years, this nationally recognized program has graduated numerous public history and historic preservation professionals who now apply their knowledge and skills across the country, in academia and outside, to promote public appreciation of our shared cultural and historic heritage."



Noel Stowe

"The public history program at ASU is a valued partner in the efforts of the State Historic Preservation Office and other preservation organizations in ensuring that history students enter the professional world with both sympathy for historic places and a resume of the highest professional skills and knowledge."

Stowe began his ASU career in 1967 as an assistant professor in the department of history. His areas of expertise are public history, the

Southwest, Mexico and Latin America.

He served as chair of the department from 1998 to 2007. Stowe also served as senior director of the graduate program in public history from 1980 to 2007. Previously, he was associate dean of ASU's Graduate College from 1991 to 1994 and 1995 to 1996.

Stowe earned a bachelor's degree in history and social studies in 1963 and a doctorate in history in 1970 from the University of Southern California.

Stowe's book, "Arizona at 75: The Next 25 Years," was published by the Arizona Historical Society with the ASU Public History Program. The book was part of the program's cooperative project with the Arizona Historical Society to commemorate Arizona's Diamond Jubilee with assessments by leading historians and to provide recommendations on preserving Arizona's historical documentation. Stowe's other publications include "Accountancy in Arizona" and "California Government: The Challenge of Change."

He has been awarded grants from the National Endowment for the Humanities, National Park

Service, American Historical Association and Arizona Humanities Council.

As a member of the Arizona Historical Society Museum, Stowe also serves on numerous boards in Arizona and its communities. He has served on committees of the Arizona Historical Advisory Commission (Arizona Centennial), American Historical Association and Organization of American Historians. He is a committee member of the American Association for State and Local History and the National Council on Public History.

In 2004, Stowe received the Friend of the Humanities Award from the Arizona Humanities Council. The same year he was bestowed the Gary S. Krahenbuhl Difference Maker Award from the ASU College of Liberal Arts and Sciences. In 2007, he received the James V. Mink Oral History Award in Recognition of Outstanding Contributions to Oral History in the Southwest from the Southwest Oral History Association.

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