Roger Rajewski, left, professor of pharmaceutical chemistry; Brian Blagg, professor of medicinal chemistry; and Rick Dobrowsky, professor of pharmacology and toxicology, perform a test in a lab. The researchers have found that a compound developed at KU can stop, and even reverse, in mice a debilitating condition of diabetes that causes pain in the extremities and can lead to amputations.

**Diabetes breakthrough**

**Researchers show KU-developed drug has potential to reverse debilitating effect of disease**

A drug developed at KU has the potential to stop a debilitating condition of diabetes that often leads to pain in the extremities and even amputations. The researchers recently published an article showing that the drug, KU-32, can stop and even reverse
diabetic peripheral neuropathy, or DPN, in mice. The condition leads to death of nerves in the extremities of individuals with diabetes.

“People with DPN can be very sensitive to light touch, which can cause significant pain,” said Rick Dobrowsky, professor of pharmacology and toxicology and one of the paper’s authors. “The other side is eventually diabetes causes death of the nerves. DPN often leads to loss of feeling in the hands and feet, which can make diabetics susceptible to wounds and infections and often leads to amputations of toes and feet.”

DPN is the second leading cause of amputations, after injuries.

Dobrowsky co-authored the paper with Brian Blagg, professor of medicinal chemistry; Roger Rajewski, professor of pharmaceutical chemistry; Joanna Krise and Michelle McIntosh, research associates with the Biotechnology Innovation and Optimization Center; Cuijuan Yu, research associate with the Higuchi Biosciences Center; postdoctoral researcher Yuanming Lu; and graduate students Michael Urban and Cuijuan Yu. The American Society of Neurochemistry’s journal, ASN Neuro, published the work.

The researchers administered KU-32, a drug developed by Blagg at KU, to diabetic mice. The compound stopped DPN and showed it can even restore sensory neuron function to damaged nerve tissue. KU-32 inhibits a specific member of a family of proteins called molecular chaperones.

“These studies provide the first evidence that targeting molecular chaperones reverses the sensory hypoalgesia associated with DPN,” the authors wrote.

There are approximately 24 million diabetics in the United States. Dobrowsky said nearly 60 percent of them suffer from DPN at some point. The researchers hope that eventually the drug could be used to help to treat the condition in humans. Their research shows KU-32 can be administered orally as infrequently as once a week and still be effective. It could be administered in small doses, potentially reducing severity of side effects.

“Our tests so far indicate that KU-32 is completely nontoxic and is absorbed in the blood stream very well. It has long-term efficacy,” Blagg said. “It is a promising treatment.”

There are only two FDA-approved drugs used for treatment of DPN, Blagg said. However, one is an anticonvulsant and the other is an antidepressant, and neither has the potential to reverse nerve degeneration.

Grants from the Juvenile Diabetes Research Foundation and the National Institutes of Health fund the ongoing research. The team is hoping to discover how long the drug can be effective in combating DPN. People often find out they have diabetes when they are suffering from the nerve-degenerating condition.

“The idea is to try to determine at what point in nerve degeneration will be most effective and at what point the drug will not be efficacious,” Dobrowsky said. “We’d like to know at what stage in the progression of DPN a window of opportunity exists for the beneficial use of KU-32.”

The researchers also hope to determine exactly how the drug stopped and reversed DPN in mice. It’s not immediately evident if it improved existing nerve fibers or generated new ones.

The drug is still in preclinical development. It likely will need another year or two of study. Then, researchers hope it could advance to clinical trials in humans.

Dobrowsky said the collaboration of researchers with different areas of expertise was key to the study.

“This is an excellent example of how collaboration allows us to achieve one of the School of Pharmacy’s goals, to discover medications that enhance and extend life,” he said.

New faculty begin first year on the Hill

Forty-six new faces cover nearly every corner of campus

A new academic year brings not only a crop of beginning students, but also a new class of KU faculty. Forty-six scholars are beginning their careers as KU faculty members this year. They represent nearly every corner of campus and come from a variety of backgrounds, having taught, studied and researched at institutions across the country and around the world. New faculty members, their disciplines and research interests are detailed below.

Jacqueline Brinton, assistant professor of religious studies

Brinton earned her doctorate from the University of Virginia. She most recently was a visiting assistant professor at Davidson College. Her research interests include Islamic religious history, modern Islam, Islamic ethics and gender issues in Islam.

Scott Bronson, assistant professor of business

Bronson earned his doctorate from the University of Tennessee. He most recently was an assistant professor at Michigan State University. His research interests are in auditing and corporate governance and he is a certified public accountant.

Hongyang Cai, assistant professor of civil, environmental and architectural engineering

Cai earned his doctorate from the University of Michigan. He most recently was a research associate at Hong Kong Polytechnic University. His research interests include daylighting, solar energy, legible buildings and environments and architectural lighting.

Darren Canady, assistant professor of English

Canady earned his master’s from New York University and an artist’s diploma in playwriting from the Juilliard School. His plays focus on his Midwestern roots and the fault lines between race, history and social change.

Clinton Chadwick, associate professor of business

Chadwick earned his doctorate from the University of Pennsylvania. He most recently was an associate professor at the University of Alabama-Huntsville. His research focuses on the impact of human resource systems and human capital on firm competitiveness.

Promothesh Chatterjee, assistant professor of business

Chatterjee comes to KU while completing his doctorate at the University of South Carolina. His research interests include processes influencing consumers' valuation of products, sequential decision-making and product choice.

Jungwon “Janet” Choy, assistant professor/assistant scientist, speech-language-hearing, Life Span Institute

Choy is a doctoral candidate at Northwestern University. Her research focuses on the effects of lexical processing on comprehension of agrammatic sentences.

Eric Deeds, assistant professor of
bioinformatics/molecular biosciences

Deeds earned his doctorate from Harvard University. He most recently was a postdoctoral fellow at Harvard Medical School. His research interests include modeling the assembly of biologically important macromolecular structures and understanding the dynamics of signaling networks.

John Derby, assistant professor of visual art

Derby earned his doctorate from The Ohio State University. He most recently served as a lecturer at KU. His research interests include disability studies and interdisciplinarity, social theory, assessment, contemporary art and visual and material culture.

Prajnaparamita Dhar, assistant professor of chemical and petroleum engineering

Dhar earned her doctorate from Florida State University. She most recently was a postdoctoral research fellow at the University of California-Santa Barbara. Her research focuses on the dynamics of biological soft matter systems.

Adrian Finucane, assistant professor of history

Finucane is a doctoral candidate at Harvard University, where she is an Artemas Ward Fellow. Her research interests include contact between peoples in the early modern Atlantic world, race and gender in early European colonies and beliefs about witchcraft in early America.

Jacob Fowles, assistant professor of public administration

Fowles received his doctorate from the University of Kentucky. His research interests include higher education governance, finance and policy and public budgeting and financial management.

Xin "Felicity" Fu, assistant professor of electrical engineering and computer science

Fu earned her doctorate from the University of Florida. She most recently was a computing innovation fellow at the University of Illinois at Urbana-Champaign. Her research interests include processor microarchitecture, multi-core computer architecture and non-scale technology scaling.

Verónica Garibotto, assistant professor of Spanish and Portuguese

Garibotto earned her doctorate from the University of Pittsburgh. She most recently was an adjunct assistant professor at Queen's University. Her research focuses primarily on the links among narrative (literature and film), history and politics in Latin America.

Heather Getha-Taylor, assistant professor of public administration

Getha-Taylor earned her doctorate from Syracuse University. She most recently was an assistant professor at the University of South Carolina. Her research focuses on public and nonprofit management, with special emphasis on personnel administration, executive leadership and organizational behavior.

Alfred Tat-Kei Ho, associate professor of public administration

Ho earned his doctorate from Indiana University/Purdue University-Indianapolis. He most recently was an associate professor at Indiana University/Purdue University. His research interests include performance measurement and budgeting, e-government and state and local applied finance.

Virginia Harper Ho, associate professor of law

Ho earned her law degree from Harvard Law School. She most recently served as a visiting assistant professor at Indiana University. Her research interests include corporate governance, Chinese law and legal reform and the regulation of multinational corporations.

Kyoungchul “K.C.” Kong, assistant professor of physics and astronomy

Kong earned his doctorate from the University of Florida. He most recently was a research associate at SLAC National Accelerator Lab. His research focuses on physics beyond the standard
Miloche Kottman, assistant librarian, KU Libraries

Kottman earned her master’s from the University of Wisconsin-Milwaukee. She most recently was interim assistant head of cataloging/head of Spencer Research Library processing at KU. Her scholarly interests involve metadata and the discovery interfaces used to create and/or display it.

Chad Kraus, assistant professor of architecture

Kraus earned his master’s from McGill University. He most recently was a visiting assistant professor at KU. His research interests include phenomenology in architecture and natural sustainability.

Pym Manopimoke, assistant professor and Oswald Scholar, economics

Manopimoke is a doctoral candidate at the University of Washington. Her research interests include time series econometrics, empirical macroeconomics and monetary economics.

Afshin Marashi, associate professor of history

Marashi earned his doctorate from the University of California-Los Angeles. He most recently was an associate professor at California State University-Sacramento. His research focuses on the Middle East, Iran and nationalism.

Marshall Maude, assistant professor of visual art

Maude earned his master’s from KU, where he most recently was a lecturer. His scholarly interests include ceramics, casting, metal fabrication and stone carving.

Felix Meschke, assistant professor of business

Meschke earned his doctorate from Arizona State University. He most recently was an assistant professor at the University of Minnesota. His research interests include corporate finance, corporate governance, mutual funds and international finance.

Lumen Mulligan, professor of law

Mulligan earned a bachelor’s from KU and his law degree from the University of Michigan. He most recently was an associate professor at Michigan State University. His research addresses the jurisdiction and remedial powers of the federal courts and ethical governance of nonprofit organizations.

Carlos Nash, assistant professor of anthropology

Nash is a doctoral candidate at the University of California-Santa Barbara. His research interests include articulatory phonetics, acoustic phonetics, linguistics and technology and sociocultural linguistics.

Peter Ojiambo, assistant professor of African and African-American studies

Ojiambo earned his doctorate from Ohio University. He most recently was a lecturer and language coordinator at the University of Illinois at Urbana-Champaign. His research interests focus on African language pedagogy: educational objectives and theory; and philosophical, administrative and curriculum challenges.

Margaret Wickens Pearce, assistant professor of geography

Pearce earned her doctorate from Clark University. She most recently was an assistant professor at Ohio University. Her research interests include critical cartography, indigenous cartography, map design, geovisualization and historical and cultural geography.

Paul W. Popiel, assistant professor/director of bands, music

Popiel earned his doctorate from Michigan State University. Previous positions include Oklahoma State University and the Jacobs School of Music at Indiana University. A proponent of distinctive new music for bands, he has commissioned and premiered numerous new works for wind ensemble and chamber winds.

Derek Reed, assistant professor of applied behavioral science
Reed earned his doctorate from Syracuse University. He most recently was assistant director of clinical services at Melmark New England. His research interests include the behavioral processes underlying choice and decision making and the translation of basic research on behavioral economics into application.

**Florence DiGennaro Reed**, assistant professor of applied behavioral science

DiGennaro Reed earned her doctorate from Syracuse University. Her research focuses on staff training practices, performance management of employees in nonprofit settings and outcomes for children with disabilities.

**Mary Jo Reiff**, associate professor of English

Reiff earned her doctorate from KU. She most recently was an associate professor at the University of Tennessee. Her research interests include composition studies and public rhetoric.

**Paola Sanguinetti**, associate professor of architecture

Sanguinetti is a doctoral candidate at the Georgia Institute of Technology. She is returning to a position as an associate professor at KU following doctoral study at Georgia Tech. Her research focuses on building performance and sustainability.

**Sonya Satinsky**, assistant professor, health, sport and exercise sciences

Satinsky received her master’s and doctorate at Indiana University. Her research interests include community-based health research, sexual health and body image.

**Frederic Sellet**, assistant professor of anthropology

Sellet earned his doctorate from Southern Methodist University. He most recently was an assistant professor at the University of Northern Colorado-Greeley. His research interests include plains and Rocky Mountains archaeology and Pleistocene and Holocene hunter-gatherers.

**Chris Silvia**, assistant professor of public administration

Silvia earned his doctorate from Indiana University. His research interests include public management, leadership, organizational behavior and networks and collaboration.

**Scott McBride Smith**, Cordelia Brown Murphy Professor of Music

Smith earned his doctorate from the University of Southern California. He most recently was a visiting professor at KU. He is an internationally recognized authority on piano teaching and pedagogy.

**David Alan Street**, assistant professor of music

Street earned his doctorate from Exeter University in the United Kingdom. He most recently was a teaching fellow at University College Dublin. His scholarly interests relate principally to musicology and music theory.

**Xuemin Tu**, assistant professor of mathematics

Tu earned her doctorate from New York University. She most recently was an assistant researcher at the University of California-Berkeley. Her research interests include scientific computing, numerical analysis and applied mathematics.

**Jeff Vitter**, provost and executive vice chancellor and professor of electrical engineering and computer science

Vitter earned his doctorate from Stanford University. He has been provost and executive vice president for academics at Texas A&M University; the Frederick Hovde dean of the College of Science at Purdue University; and distinguished professor and chair of the computer science department at Duke University. His research focuses on the algorithmic aspects of processing massive amounts of information.

**Robert Walzel**, dean of the School of Music

Walzel earned his doctorate from the University of North Texas. He most recently was director of the School of Music at the University of
Utah. He has performed extensively in virtually every medium featuring clarinet and saxophone, from major symphony orchestras to jazz and commercial music.

**Tara Wenger**, assistant librarian, KU Libraries

Wenger earned her master’s from the University of Texas-Austin. She most recently was the interim head of reader services at Spencer Research Library at KU. Her scholarly interests include literary copyright and access to cultural heritage materials.

**Carol Woods**, associate professor, quantitative psychology, and associate director, Center for Research Methods and Data Analysis

Woods earned her doctorate from the University of North Carolina-Chapel Hill. She most recently was an associate professor at Washington University in St. Louis. Her research interests include item response theory, differential item functioning and categorical data analysis.

**Liang Xu**, associate professor of molecular biosciences

Xu earned his doctorate from the Fourth Military Medical University in China. He most recently was an assistant professor at the University of Michigan Medical School. Xu’s cancer research focuses on therapy targeting pathways for radio- and chemo-sensitization by molecular modulation of apoptosis/autophagy pathways.

**Shi Du “Shirley” Yan**, Mossberg Distinguished Professor of Pharmacogenetics, Pharmacology and Toxicology

Yan earned her doctorate from Fujian Medical College. She most recently was a professor at Columbia University. Her research investigates the cellular and molecular mechanisms of cellular stress and survival in neurodegenerative disorders such as Alzheimer's disease, Parkinson’s disease and multiple sclerosis.

**Molly Zahn**, assistant professor of religious studies

Zahn earned her doctorate from the University of Notre Dame. She most recently was a lecturer at KU. The main focus of her research is perceptions of scripture and scriptural authority in early Judaism and Christianity, especially in the Dead Sea Scrolls.

**Zhongquan “Charlie” Zheng**, associate professor of aerospace engineering

Zheng earned his doctorate from Old Dominion University. He most recently was an associate professor at Kansas State University. His research interests include aerodynamics, vortex dynamics, computational fluid dynamics and heat transfer and turbulent flows. He is a fellow of the American Society of Mechanical Engineers and an associate fellow of the American Institute of Aeronautics and Astronautics.

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**Baltezor to lead effort to take KU drug discoveries to market**

Biotechnology Innovation and Optimization Center key part of cancer center quest
Michael Baltezor, a veteran manager of pharmaceutical and medical products companies in Kansas City, has been named director of a KU research center that focuses on bringing drug discoveries into the marketplace.

Baltezor joins KU’s Biotechnology Innovation and Optimization Center, known as BIOC, a research and commercialization group that operates at the Lawrence and medical center campuses. BIOC is seen as an important component of KU’s initiative to obtain National Cancer Institute designation for the bi-campus KU Cancer Center.

“Having someone with Mike’s vast industry experience in this role will be a real plus for BIOC,” said Steve Warren, vice provost for research and graduate studies. “He has a tremendous track record as a business executive who also understands the science extremely well.”

Baltezor has worked for drug development-related companies since 1976, including 10 years with the Dorsey Laboratories Division of Sandoz, seven years with Quintiles Inc. and 12 years with Marion Laboratories and its successor companies. Most recently, he was vice president of research and development in the Infection Prevention Division of CareFusion Inc., following two years as chief science officer for Medi-Flex Inc.

In his new role, Baltezor reports to Warren and serves as associate director of KU’s Institute for Advancing Medical Innovation, established in 2009 with an $8.1 million grant from the Ewing Marion Kauffman Foundation and a commitment of matching funds from KU Endowment.

“BIOC plays an integral role with IAMI,” Scott Weir, its director. “As we help faculty researchers and our external collaborators transform basic research into new drug therapies, BIOC helps us not only select the most promising drugs, but to formulate them into drug products which will be administered to patients participating in clinical trials. Mike brings tremendous industry experience, and with his leadership, will enable us to establish and advance strategic collaborations with industry, government, academia and disease philanthropy organizations, all in the effort of bringing new therapies to patients.”

Baltezor received a doctorate in pharmaceutics and pharmaceutical chemistry in 1977 and a master’s in 1975, both from KU. His advisers were Takeru Higuchi and Arnold Repta, known as pioneers in the formulation of drug compounds for development as products in the private sector. Baltezor received a bachelor’s in chemistry from Missouri Western State University in 1972, where he was the recipient of a Distinguished Alumni Award and an honorary doctorate.

“BIOC has established a reputation for excellence in solving drug delivery challenges,” Baltezor said. “My vision is for the group to become a more integrated partner with IAMI and other scientific, engineering and medical groups at Lawrence and the medical center. Our primary goal is to utilize the strength of an integrated scientific drug development approach to support the KU Cancer Center, the drug discovery, delivery and development research program and external collaborations with start-ups and established companies.”

BIOC was established in 2008 with external support from the Kansas Technology Enterprise Corporation. Its research programs are funded primarily by grants and contracts from the National Institutes of Health, IAMI, the KU Cancer Center, industrial partners and nonprofit health-related organizations.
Students study and use work stations in the newly-opened Learning Studio at Anschutz Library. The space has been remodeled and upgrade to give students an engaged work space with state-of-the-art technology in a comfortable setting.

**Anschutz opens expanded, improved 'Learning Studio' space**

**New concept a partnership of Libraries, Student Success, Information Technology**

On just the third day of classes, the library was already full. Students were working at laptops, lounging in new furniture, getting help from librarians, buying coffee, practicing presentations, meeting with tutors and getting writing help. All in the same space.

The new Learning Studio at Anschutz Library remodeled and dedicated space to help students engage in learning through technology, comfort
and flexibility, opened this semester.

The space, a partnership between KU Libraries, Student Success and Information Technology, is the result of asking students what they would like in a library and giving them the resources to be successful.

As students enter Anschutz, one of the first things they’ll see is an information desk staffed by a KU Info representative, a reference librarian and an Information Technology student. A wall that used to divide the space has come down and new computer workstations have been installed alongside a mix of lounge furniture, traditional library furniture and café. Much of the furniture is mobile, allowing students to pull chairs together for group study.

On the fourth floor, private tutoring areas and study rooms have been installed. All feature dry erase boards and power stations that laptops can be hooked into. The KU Writing Center has also moved into the space, expanding “writer’s roosts” in which students can receive tips on writing or simply work on projects.

The space also features technology that allows students to practice presentations and “Mediascape,” a tool that allows up to six laptops to be plugged in that can then share two large screens.

The Learning Studio project began last spring and was completed in time for the fall semester. Jen Church-Duran, assistant dean for user services with KU Libraries, said the project will expand as funds become available.

Church-Duran said that last year, more than 700,000 students visited Anschutz Library. In a survey, many stated that they often spend several hours at a time studying in the facility. The goal of the new Learning Studio was to provide everything students needed to stay engaged in learning. If they have to leave the building, the study session may not restart.

“I think it’s a much more open, warm, inviting environment for students,” Church-Duran said. “That’s exactly what we wanted, a place that could offer a collaborative, engaging environment.”

'Hilltop Honors' to present KU's highest awards for service, achievement Sept. 10

Distinguished Service Citation, Fred Ellsworth Medallion among awards to be presented

The KU Alumni Association will present the 2010 Distinguished Service Citation and Fred Ellsworth Medallion at the Hilltop Honors event on Sept. 10 at the Oread Hotel. For the first time, the four recipients of the association’s premier awards will be honored in one celebration of service and achievement.
This year’s Distinguished Service Citation, the highest honor given by KU and the association, will be presented to Anderson Chandler, Topeka, and Benjamin Hall, Bellevue, Wash. Since 1941, the award has saluted outstanding achievements “for the betterment of society and in behalf of humanity.”

The Fred Ellsworth Medallion will be presented to Gretchen Van Bloom Budig, Isle of Palms, S.C., and Monte Johnson, Lawrence. Established in 1975, the award honors individuals “who have provided unique and significant service to the University.”

Chandler is the chairman, president and director of Fidelity State Bank and Trust Company in Topeka. A longtime community volunteer and donor, he has served on the Jayhawk Area Council of Boy Scouts of America since the 1950s and has served on the national board of directors since 1993. He underwrites a Duty to God Award for Boy Scouts and has been honored by Boy Scouts at the highest national level.

His philanthropic work also includes service to the Topeka YMCA, Topeka schools, United Way, Washburn University and the Topeka and Shawnee County Public Library.

Chandler received a KU business degree in 1948. He established a professorship and lecture series in the School of Business and has served on the school’s Board of Advisors. In addition, he has been a KU Endowment trustee since 1985, and has served on the board of the KU Memorial Union Corp. He received the Fred Ellsworth Medallion in 1997 for his service to KU. He is an Alumni Association life member.

Hall spent most of his career at the University of Washington, where he is professor emeritus of biology and genome studies, rhododendron and azalea evolution and biogeography. His discoveries have helped develop vaccines for cervical cancer, insulin used by millions of diabetic patients and diagnostic agents used to assure the safety of blood in blood banks worldwide. He served on the UW faculty from 1963 until his retirement in 2007, when the university named a new research building in his honor.

Hall received a KU bachelor’s degree in 1954, and in 2003 he initiated the Mary Harkey Hall Award in Plant Biology at KU. The award, given in memory of Hall’s mother, provides financial support to graduate students studying botany.

Budig is the wife of longtime KU Chancellor Gene A. Budig. From 1981 to 1994, she hosted events at the chancellor’s residence and around the country, representing KU to thousands of students, alumni, donors and legislators during KU’s major fund drive, Campaign Kansas, from 1988 to 1992. In 1988, she published a guide for spouses of university presidents and chancellors called “How in the World Do You Do It?” The book became a resource for the national Association of State Universities and Land-Grant Colleges.

Since leaving KU, the Budigs have provided extensive funds for student scholarships and professorships to areas across the university, including the schools of education, fine arts, journalism and social welfare; the College of Liberal Arts and Sciences; the Lied Center; KU Libraries; and Kansas Athletics. The Budigs are life members of the KU Alumni Association.

Johnson began his career in the KU athletics department in 1961 as director of public relations, business manager and assistant athletics director. A former member of the men’s basketball team, he helped guide the KU Athletics Corp. board as an alumni representative from 1978 to 1982. After an 11-year banking career with Bank IV in Wichita, where he became senior vice president, he returned to KU as athletics director from 1982 to 1987.

Johnson earned a KU bachelor’s degree in 1959 and a graduate degree in 1967. He belongs to the Chancellors Club for KU Endowment and served on the alumni association’s national board of directors from 1971 to 1974. He and his wife, Kay Rathbone Johnson, are life members of the alumni association.
KU Bookstores' web site now features a tool that allows students to compare prices of buying a book at the store, renting it or purchasing it from another service such as Amazon or Half.com. The store is also able to print select titles on demand.

KU Bookstores introduces textbook rental, price comparison, print-on-demand options

Store one of few in country testing program

When faced with hefty textbook costs, students used to have only two options: fork over the money or take their chances without the books. This semester, KU Bookstores has started offering students several new options including book rental, price comparisons (from online retailers) and even print-on-demand materials.
The store has launched a new tool on its website, kubookstore.com, that allows students to search for books they need by course, then compare pricing options between buying it at the store, renting it, buying it from Amazon.com or Half.com or, for selected titles, having a version printed in the Kansas Union.

KU is one of a small number of universities in the nation offering the service. Estella McCollum, director of the KU Bookstore, said KU is one of only four “large schools” taking part in the program to help campus bookstores be more competitive in the online marketplace.

“I think students have appreciated having the option,” McCollum said of the store’s new analytical tool. “We can show them that, yes, you can afford the book and pay less.”

One might wonder how renting a textbook is different than buying it and selling it back at the end of the semester. Students can choose how long they want to rent it, either 30, 60 or 125 days. The price is normally lower than purchase price, and the book must be returned at the end of the rental period or a replacement fee is assessed. When purchasing a book, there is not a guarantee that books will be bought back after purchased.

KU was the first college to participate in publisher Follett's partnership with Bookrenter.com to offer the service. McCollum said renting is often an attractive option for students who might not be able to pay full price for a book.

As of Aug. 25, 544 orders had been made through the book rental option on the store’s site. There were more than 6,700 site visits at that point and students had saved an estimated $80,500 through renting, McCollum said.

Those who don’t wish to buy or rent a book have a fourth option: print on demand.

Oread Books recently transitioned to Jayhawk Ink, a store that still offers general interest books and magazines but is now equipped with state-of-the-art Hewlett Packard book printing equipment. The store will print a set amount of books that are available for in-store printing and put them on the shelves. If more are needed, they can be produced.

“With this, we’re essentially never out of stock on the printable titles,” McCollum said. “We just have a more efficient option for purchasing.”

The bookstore has an agreement with a few academic publishers to print titles and can print course packets, which include required readings such as journal articles and professor’s notes. Jayhawk Ink can print public domain titles such as Mary Shelley’s “Frankenstein” or Mark Twain’s “The Adventures of Huckleberry Finn” for only the cost of materials and can customize them in “Jayhawk Editions.” They hope to expand to print student projects, books, portfolios, cookbooks and other projects as the semester progresses.


The new options have proven popular, but it doesn’t appear the traditional method of buying a book at the store is in danger. McCollum said 80 percent of people who buy books through the site’s new comparison portal purchase them from the store. The other 20 percent are split among the other three options. She noted that all of the store’s profits support Student Success and the impetus behind the new options was to provide a service to students in helping them find the best possible deals on textbooks.
"Women's Civic Leadership From the Heartland" attendees, from left, Hadir, Radwa, Imane and Amal at the "White House Decision Center" at the Harry S. Truman Library and Museum in Independence, Mo. Twenty women from Morocco and Egypt spent a month at KU learning about civic leadership through a program sponsored by the U.S. State Department.

Moroccan, Egyptian women come to KU for civic leadership lessons

U.S. State Department funds leadership academy

*Editor’s note: The U.S. State Department requests that only the first names of participants are used.*

By Lauren Beatty

Ntissar wants to build a leadership center to empower young women like her. Esraa aspires to connect nongovernmental organizations. Ghita’s hope is
to preserve the heritage of her Moroccan hometown.

These three undergraduates from northern Africa, and 17 others, spent the month of July at KU attending “Women’s Civic Leadership From the Heartland,” a KU-created program sponsored by a $240,000 grant from the U.S. State Department’s Bureau of Educational Cultural Affairs. This was the first year the State Department invited proposals for women’s leadership programs, and KU’s was chosen as one of three women’s leadership programs to be hosted in the country.

The women, all from Egypt or Morocco, began the institute by participating in a series of exploratory exercises called “Do What You Are” that helped them identify and refine their life goals. They also completed the “Strengths Quest” and “Do What You Are” inventories, administered by the University Career Center. Then, the women were asked to develop mission and value statements.

“We discussed what means a lot to us — words that represent us, our favorite colors, images,” said Ntissar. “We found our best qualities.”

Ehraa, a law student at Cairo University, dove into plans for connecting nongovernmental organizations in her homeland.

“A lot of times, they overlap and don’t learn from each other’s mistakes,” she said. “They lose a lot of time and effort. I would like to coordinate the organizations, giving courses to volunteers to give them knowledge and skills.”

Basma, a student at Al Akhawayn University in Morocco, wants to better integrate people with disabilities into her society. She collected statistics, researched services already available in her native country and planned an awareness campaign with assistance from institute directors.

The women found that simply meeting each other and sharing their passions in an open and creative environment was beneficial.

“I learned a lot about the other girls, but I was surprised to learn even more about myself,” said Esraa.

Mary Banwart, associate professor of communication studies, is academic director and co-principal investigator for the grant that funded the institute.

“This has been life-changing,” she said. “I am so optimistic about the future of these women. We’ve seen firsthand a level of deep critical thinking on social issues and an incredible passion for change. You can see they’re going to persevere.”

**Kansas and beyond**

The core of the institute’s curriculum was designed by Banwart and Andi Witczak, director of the Center for Service Learning and co-principal investigator of the institute grant. Hannah Britton, associate professor of political science, also was a co-principal investigator. Linda Dixon, program assistant at the Center for Service Learning, was the administrative director of the program.

“We’ve been working on this curriculum for four years,” said Witczak. “We were trying to find a way for disciplines to work together because no one discipline can solve these problems.”

Mary Banwart

Through workshops, projects and travel, the women learned valuable skills that will help them become messengers of change in their home countries. According to all involved, the institute was powerfully inspiring.

**Do What You Are**
Part of the learning experience was going beyond campus. The women traveled to the Kansas Leadership Center in Wichita and the Kansas Insurance Commission in Topeka. They met with Insurance Commissioner Sandy Praeger, a KU alumna. Another alumna, Barbara Carswell, first vice president of Capital Federal bank in Topeka, also addressed the group.

In early August, the group traveled to Philadelphia and Washington, D.C. The National Constitution Center hosted the women in Philadelphia, designing programming that included a meeting with Judge Marjorie Rendell, first lady of Pennsylvania. Keith Yehle, director of federal relations at KU, organized panels and meetings for the group to interact with alumnae living in the Capitol.

“We truly couldn’t have done this with without the assistance of these people from across the university, local community, state and alumnae networks,” said Banwart.

**The next steps**

By now, all of the women have returned home. But the institute is far from over. Throughout the fall semester, the women and their KU mentors will communicate via Webinars, videoconferencing and online discussion boards. The women also will complete reflection papers as they work to see their social innovation projects come to fruition.

In December, participants will submit mini grant proposals to fund their projects. Banwart says institute leaders will review the proposals and offer feedback. The goal is to use the proposals in perpetuity as they grow their projects and secure more grants.

Banwart is hopeful the institute continues beyond this inaugural year. She and her colleagues will submit follow-up materials to the State Department in hopes of receiving a two-year grant renewal.

“This was a personal and professional highlight for me,” Banwart said. “These women are incredibly impressive.”

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**KU libraries rated in top 50 for volumes held**

The American Library Association has listed the KU Libraries as one of the top 50 libraries in the nation by volumes held. KU Libraries is ranked 47th among all U.S. libraries and 25th among public universities in the United States with 4,235,542 total cataloged items available to patrons.

“We’re pleased with the designation,” said Lorraine Haricombe, dean of KU Libraries. “The number of volumes we hold reflects deep collections of world-class materials that enhance the quality of scholarship here at KU. An even more important measure of our success is the number of students, faculty and community members we serve — and the level of quality we achieve in both service and collections.”

KU Libraries has participated three times in the past seven years in LibQUAL+, a service quality assessment tool administered by the Association of Research Libraries, and has made steady improvements in most major service areas measured.

KU Libraries logged about 1.7 million visits last year at all locations, the equivalent of each of KU’s 30,004 enrolled students visiting 56 times. Patrons checked out 256,242 items. The majority of the items were books, but computer equipment, DVDs and other items such as maps and microforms were checked out as well.
Last year, 93,546 items were checked out by undergraduate students, 76,789 were checked out by graduate students and 34,701 were checked out by faculty.

KU Libraries’ popular Ask a Librarian service answered more than 8,000 research requests by phone, e-mail, chat/IM, text and in person. Librarians and library staff taught 20,235 participants in 1,277 instruction sessions.

In the digital realm, KU ScholarWorks, the institutional repository for research published at KU, is ranked 14th in the nation and 62nd in the world by the Consejo Superior de Investigaciones Científicas, the largest public research body in Spain.

Fall tuition assistance recipients announced

Tuition assistance for the fall semester has been granted to 175 university staff members. The program is offered to university employees who have at least six months of full- or part-time employment at KU at the time the classes begin. The program provides tuition for one class of up to five credit hours.

Application guidelines can be found at the Human Resources and Equal Opportunity Web page.

For more information, contact Mary Karten at 864-7346 or mkarten@ku.edu. The application deadline for the spring 2011 semester is Nov. 5.

Tuition assistance recipients, their positions and their departments are listed below.

- Daniel Alam, administration and finance
- Ruth Allenbrand, College of Liberal Arts and Sciences
- Donald Allmon, College of Liberal Arts and Sciences
- Steven Allton, Legal Services for Students
- Christie Appelhanz, College of Liberal Arts and Sciences
- Cori Ast, Dole Institute of Politics
- Heather Attig, University Relations
- Nicole Banman, Kansas Public Radio
- M. Danielle Barker, Center for Science Education
- Bradley Barton, animal care unit
- Kimberly Bates, Academic Achievement and Access Center — Disability Resources
- Cynthia Beall, Higuchi Biosciences Center
- Russell Benke, Design and Construction Management
- Doug Bergstrom, Spencer Museum of Art
- Sam Billen, Office of Study Abroad
- Rebecca Blocksome, Spencer Museum of Art
- Colleen Boley, Office of Study Abroad
- Mark Bomgardner, Kansas Law Enforcement Training Center
- Amy Borton, aerospace engineering
- Boone Bradley, Center for Research on Learning
- Michael Branden, molecular biosciences
- Christopher R. Brands, Higuchi Biosciences Center
- Marisa Bregman, Lied Center
- Larry Brow, KU Libraries
- Keith Bryant, Recreation Services
- Eric Buselt, Continuing Education
• Cristi Cain, School of Education
• Doug Carter, housing maintenance
• Melissa Caywood, Student Health Services
• Nicole Chapman, College of Liberal Arts and Sciences
• Annemarie Chilton, Higuchi Biosciences Center
• Eileen Chrisjohn, Tertiary Oil Recovery Project
• Monica Claassen-Wilson, KU Libraries
• Cathy Clark, Design and Construction Management
• Adrienne Collins Runnebaum, multicultural affairs
• Matthew Cook, College of Liberal Arts and Sciences
• Elizabeth Crickard, School of Social Welfare
• Rachel Crist, Applied English Center
• Sharla Cruse, University Advising Center
• Luke Daniels, Facilities Operations
• Cynthia Davis, Army ROTC
• Lindsey Deaver, Department of mathematics
• Mary Denning, graduate studies
• Bailey DeReus, College of Liberal Arts and Sciences
• Erika Dickey, KU Libraries
• Jeanne Disney, Center for Research on Learning
• Jeremy Early, Office of Financial Aid and Scholarships
• Heather Eastlund, College of Liberal Arts and Sciences
• Richard Edgington, School of Education
• Christina Edmonds, Information Services
• Abby Ehling, graduate studies
• Martha Elford, Center for Research on Learning
• Richard Evanhoe, College of Liberal Arts and Sciences
• Anne Flaherty, Office of the Vice Provost for Student Success
• Ed Foley, Edwards Campus
• Traci Fullerton, information services/information technology
• Jennifer Gay, Office of Financial Aid and Scholarships
• Allison Gile, Academic Achievement and Access Center — Disability Resources
• Rebecca Gillam, School of Education
• Michaela Coppedge Gillispie, graduate studies
• Laura Gonsalves, Kansas Law Enforcement Training Center
• Charles Grady, Natural History Museum
• Howard Graham, Athletics Department
• Randi Hacker, Center for East Asian Studies
• David Hageman, electrical engineering and computer science
• Brian Hanabury, design
• Winona Hansen, Student Health Services
• Gretchen Heasty, School of Education
• Troy Heidner, electrical engineering and computer science
• Daniel Hellebust, CReSIS
• Melody Henning, Academic Achievement and Access Center — Disability Resources
• Justin Henning, University Relations
• John Hindes, Continuing Education
• Jason Holladay, Facilities Operations
• Robin Holladay, Department of English
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<tr>
<th>Position / Office</th>
<th>Name</th>
<th>Department / Institution</th>
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<tr>
<td>Lavonne Holmgren, Center for Research on Learning</td>
<td>Elisa Krapcha, Office of Admissions</td>
<td>Lauren McEnaney, College of Liberal Arts and Sciences</td>
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<td>Kang Hsu, International Student and Scholar Services</td>
<td>Denise Kunze, College of Liberal Arts and Sciences</td>
<td>Lucy McGilley, School of Engineering</td>
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<td>Lavana Hubbel, Student Health Services</td>
<td>Jennie Landrum, Parking and Transit</td>
<td>Vincent McKamie, Athletics Department</td>
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<td>Aaron Hueter, Applied English Center</td>
<td>Kirk Larson, Environment, Health and Safety</td>
<td>Peggy Miksch, Life Span Institute</td>
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<td>Annette Wendy Huggins, Kansas Public Radio</td>
<td>Melody Lawrence, School of Education</td>
<td>Todd Miles, Kansas Fire and Rescue Training Institute</td>
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<td>Heidi Hulse, College of Liberal Arts and Sciences</td>
<td>Angela Lenahan, Parking and Transit</td>
<td>Julie Morris, Life Span Institute</td>
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<td>Michelle Huslig-Lowrance, Department of Economics</td>
<td>Amy Leyerzapf, Athletics Department</td>
<td>Parveen Mozaffar, School of Engineering</td>
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<td>Tobin Jennings, Center for Research on Learning</td>
<td>Anthony Lynch, Bureau of Child Research</td>
<td>John Mulvihill, School of Engineering</td>
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<td>Jody Johnson, University Advising Center</td>
<td>Teresa MacDonald, Natural History Museum and Biodiversity Center</td>
<td>Eric Nicholson, Facilities Operations</td>
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<td>Adrienne Johnson, University Advising Center</td>
<td>Margaret Mahoney, Dole Institute of Politics</td>
<td>Doug Nickel, College of Liberal Arts and Sciences</td>
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<td>Brandie Johnson, provost’s office</td>
<td>Kimberly Manifold, Information Technology</td>
<td>Yue Pan, East Asian languages and Cultures</td>
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<td>Corinna Johnson, Department of Linguistics</td>
<td>Diana Marrs, Edwards Campus</td>
<td>Anna Paradis, School of Engineering</td>
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<td>Jessica Lea Johnson, Spencer Museum of Art</td>
<td>Lisa McBride, School of Education</td>
<td>William Parrott IV, Student Success Technical Services</td>
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<td>Ross Johnson, Information Services</td>
<td>Lindsey McCaig, School of Engineering</td>
<td>Jacquelyn Pedigo, School of Engineering</td>
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<td>Kevin Kenn, Comptroller's Office</td>
<td>Michelle McCarty, animal care unit</td>
<td>Margaret Perkins-McGuinness, Spencer Museum of Art</td>
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<td>Emily Kennedy, Institute for Policy and Social Research</td>
<td>Joanna McCloud, School of Social Welfare</td>
<td>Stephanie Peterson, Environment, Health and Safety</td>
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<tr>
<td>Sarah Kerwin, Parking and Transit</td>
<td>Debbie McCord, School of Social Welfare</td>
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</table>
• Jennifer Phillips, Environment, Health and Safety

• Sean Pitzer, Student Financial Aid

• Precious Porras, Multicultural Affairs

• Adam Pousson, College of Liberal Arts and Sciences

• Amy Price, Research and Graduate Studies

• Michael Prittie, electrical engineering and computer sciences

• Martha Proctor, College of Liberal Arts and Sciences

• Laurie Ramirez, School of Education

• Dara Raney, Office of Admissions

• Amanda Reasoner, Continuing Education

• Laura Riggs, Public Safety Office

• James Riggs, School of Engineering

• John Rinnert, instructional development and support

• Marysa Sacerdote, International Student and Scholar Services

• Ken Sarber, Student Health Services

• Kelcey Schmitz, Life Span Institute

• Sarah Scholle, Office of Admissions

• Brent Schultz, Department of Applied Behavioral Science

• Jeff Severin, Center for Sustainability

• Tamara Sigley, School of Social Welfare

• Leatrice Smith, College of Liberal Arts and Sciences

• Julie Solomon, social welfare

• Rachel Sorrels, Student Health Services

• Kim Spencer, Lied Center

• William Steele, Research and Graduate Studies

• Jeffrey Stevenson, Athletics Department

• Mary Strickell, Department of Psychology

• Erika Suarez, School of Social Welfare

• Gregory Swart, Comptroller's Office

• Amy Tackkett, School of Education

• Diane E. Taveggia, Applied English Center

• Tristan Telander, Spencer Museum of Art

• Jean Thoma, Athletics Department

• Gail Tiemann, Center for Research on learning

• Paul Trana, School of Education

• Leslie Traylor, Academic Achievement and Access

• Savanna Trent, College of Liberal Arts and Sciences

• Altaf Uddin, School of Law

• Sandra Urish, pharmacy practice

• Christina Van Nostrand, Kansas Public Radio

• Teri Varuska, Department of Applied Behavioral Science

• Leslie VonHolten, Center for East Asian Studies

• Michael "Shawn" Wade, KU Libraries

• Linda J.B. Wiley, Department of Molecular Biosciences

• Cathleen Wilkinson, Office of Student Financial Aid

• Dominick Williams, Athletics Department

• Sheree Willis, Confucius Institute

• Celeste Morgan Yaluk, Office of International Programs

• Kristin Zachrel, KU Libraries

• Xiaobin Zuo, Department of Chemistry
KU study abroad, programs lauded by national publications

KU is among nine public universities in the nation cited by U.S. News and World Report for having top study abroad programs, which the publication said education experts agree on as a key ingredient to student success.

KU offers programs in approximately 70 countries throughout the world. Students can study in Africa, the Americas, Asia, Australia or Europe. Twenty-seven percent of KU students study abroad at some point in their time at the university. U.S. News described the selected programs as “stellar.” KU and the University of Texas were the only Big 12 Conference schools cited.

The study abroad listing was among several high rankings the university collected in the past month from U.S. News, the Princeton Review and the “Fiske Guide to Colleges.”

U.S. NEWS AND WORLD REPORT

KU has 49 programs ranked nationally by U.S. News, including the special education and city management and urban policy master’s programs, which are No. 1 in the nation among public universities. In its newest rankings released this month, KU tied for 47th among public research universities. Among undergraduate programs, the School of Business was ranked 35th and the School of Engineering was tabbed at 46th. Unlike with graduate programs, the magazine’s undergraduate rankings don’t list individual degree programs, only top 50 schools.

FISKE GUIDE TO COLLEGES

Once again, KU is the only school in the state chosen for the renowned “Fiske Guide to Colleges,” produced by the former education editor of the New York Times.

“No school has a better balance of academics, athletics and social life,” a student says in the 2011 edition of the guide.

Architecture and urban design, allied health, fine arts, social welfare, pharmacy, nursing, education, business and engineering are most noted for undergraduate programs, according to Fiske. The journalism school is “amazing,” according to students quoted by the magazine.

Student services also rate highly.

“The Office of Student Success, run by its own vice provost, wins praise for its academic advising and for its help with internships, disability services and extracurriculars,” the guide says.

Fiske also praises the beautiful campus, describing it as one of the loveliest in the nation, and notes the city of Lawrence also gets “rave reviews” from students who call it the classic American college town.

PRINCETON REVIEW

Engaged faculty, strong academics, affordable tuition and an active social scene combine to make the KU one of the country’s best institutions for undergraduate education, according to the Princeton Review.

The education services company features the school in the 2011 edition of its annual college guide, “The Best 373 Colleges.” The publication also named KU to its list of “Best in the West” schools. Rankings are based on student surveys of issues ranging from the accessibility
of their professors to quality of the campus food. Students also answer questions about themselves, their fellow students and campus life.

“The school ‘provides numerous, wonderful opportunities to every student’ through ‘the integration of tradition and new media … to form a new level of excellence,’ ” according to the guide, which includes information on academics, tuition, enrollment, financial aid and student life to assist students and their parents in selecting a college.

In the profile of KU, publishers quoted students who were surveyed regarding their opinions of the university. The students praised the University Honors Program, diverse student body and affordability as well as a lively social life and devoted fan base for athletics. The David A. Ambler Student Recreation Fitness Center is described as first-rate.

“Life at KU is extraordinary. From going downtown to Mass Street to attending basketball and football games, there is always something to do in Lawrence,” one student told publishers.

Earlier this year, the Princeton Review included KU on its list of “Best Value” schools. One-hundred institutions are chosen — 50 public and 50 private — based on surveys of administrators and students at more than 650 public and private colleges and universities. The guide praised the university’s programs in communications, education, engineering, journalism, music, nursing, premedical sciences and the social sciences, attendance and financial aid — using the most recently reported data from each institution for its 2008-09 academic year.

School of Law lands top 20 'best value' rating

The School of Law is one of the top 20 "Best Value" law schools in the nation, according to preLaw magazine.

This is the second year in a row the law school has been honored by preLaw.

“This ranking we value because it is consistent with the primary mission of the law school: to provide a high-quality legal education that is affordable to students,” said Stephen Mazza, interim dean of the law school. “The rankings also reflect the dedication of our outstanding faculty and the hard work of our career services office.”

Law schools are honored if they meet four criteria: their bar pass rate is higher than the state average; their average indebtedness is below $100,000; their employment rate nine months after graduation is 85 percent or higher; and tuition is less than $35,000 a year for in-state residents.

“With tuition and cost of living expenses outpacing entry-level salaries, it is more important than ever for prospective law students to take into account value,” said Jack Crittenden, editor and founder of preLaw magazine and its sister-publication, the National Jurist.

Total tuition and fees for the 2010-11 academic year for a first-year Kansas resident are about $15,500.

Last year, the School of Law was ranked No. 21 on the Best Value list. preLaw’s fall issue, published in October, will rank the top 20 schools and assign a letter grade to the other 40 honorees.

“Our current students and alumni know the outstanding value they’ve received from their tuition dollars,” Mazza said, “and it’s nice to let others know that you don’t have to spend $40,000 a year in tuition to receive a high-quality law degree.”
Annual dinner to recognize University Support Staff retirees

Thirty-eight retiring University Support Staff employees will be honored at the 32nd annual retiree dinner Oct. 5. The dinner recognizes employees and provides them with a memento for their time of service.

The dinner will be held at 6 p.m. at the Big 12 Room in the Kansas Union. Meals are complimentary for the retiree, one selected guest and the departmental administrator who will introduce the retiree. For other guests the cost of the meal is $13. For more information, contact Mary Karten at 864-7346 or mkarten@ku.edu.

Retirees, their departments and years of service are listed below

• Carol Anderson, School of Law, 22
• Terry Beebe, Facilities Operations, 30
• Sandra Behymer, Department of Student Housing, 24
• Diane Brown, Comptroller's Office, 43
• Kerry Chapman, KU Libraries, 32
• Charley Chessher, Facilities Operations, 10
• Gwen Claassen, College of Liberal Arts and Sciences, 12
• Shirley Coffman, Office of the University Registrar, 23
• Mary Edwards, Facilities Operations, 37
• Jan Elder, Undergraduate Biology Program, 34
• Marilyn Greathouse, School of Engineering, 12
• Carole Hadl, Athletics Department, 45
• Rose Hermann, Athletics Department, 35
• Kenneth Hopkins, Facilities Operations, 42
• Larry Hopkins, KU Libraries, 19
• Kathryn Jansen, Comptroller's Office, 35
• Keith Kellum, Information Technology, 18
• Jerry Kendrick, Department of Student Housing, 21
• Janice Kiekel, Department of Student Housing, 14
• Joanna Long, Continuing Education, 43
• Wanda Lowe, Department of Speech-Language-Hearing, 21
• Floyd Matthews, Facilities Operations, 16
• James Means, Facilities Operations, 32
• Sharon Moritz, Department of Molecular Biosciences, 25
• Margaret Mosser, civil, environmental and architectural engineering, 29
• Wayne Reusch Jr., Facilities Operations, 46
• Nancy Richardson, School of Architecture, Design and Planning, 14
• Robert Shelley, Facilities Operations, 22
• Eddie Smith, Facilities Operations, 15
• Janice Smith, Instructional Development and Support, 37
• Jewel Smith, Office of the University Registrar, 20
• Rodney Smith, Facilities Operations, 30
Hui Zhao, assistant professor of physics and astronomy, demonstrates equipment in the Ultrafast Laser Lab. Zhao and a graduate student have published research on "spintronics," which could pave the way for next generation electronics.

**Professor's 'spintronics' research could open door for next generation computers**

Using powerful lasers, Hui Zhao, assistant professor of physics and astronomy, and graduate student Lalani Werake have discovered a new way to recognize
currents of spinning electrons within a semiconductor.

Their findings could lead the way to development of superior computers and electronics. Results from their work in KU’s Ultrafast Laser Lab will be published in the September issue of Nature Physics, a leading peer-reviewed journal, and was posted online in early August.

Zhao and Werake research spin-based electronics, dubbed “spintronics.”

“The goal is to replace everything — from computers to memory devices — to have higher performance and less energy consumption,” said Zhao.

The KU investigator said that future advancements to microchips would require a different approach for transmitting the sequences of ones and zeros that make up digital information.

“We have been using the charge of the electron for several decades,” said Zhao. “But right now the size of each device is just 30 to 50 nanometers, and you don’t have many atoms remaining on that tiny scale. We can’t continue that way anymore because we’re hitting a fundamental limit.”

Instead of using the presence or absence of electronic charges, spintronics relies on the direction of an electron’s rotation to convey data.

“Roughly speaking, an electron can be viewed as a tiny ball that spins like a baseball,” said Zhao. “The difference is that a baseball can spin at any speed, but an electron can only spin at a certain speed — either counterclockwise or clockwise. Therefore, we can use one spin state to represent ‘zero’ and another to represent ‘one.’ Because a single electron can carry this information, this takes much less time and much less energy.”

However, one major hurdle for spintronics researchers has been the difficulty in detecting the flow of spinning electrons in real time.

“We haven’t been able to monitor the velocity of those spinning electrons, but velocity is associated with the spin current,” Zhao said. “So there’s been no way to directly detect the spin current so far.”

The discovery by Zhao and Werake changes that.

The KU researchers have discovered that shining a laser beam on a piece of semiconductor generates different color lights if the spinning electrons are flowing, and the brightness of the new light is related to the strength of the spin current.

The optical effect, known as “second-harmonic generation,” can monitor spin-current in real time without altering the current itself. Zhao compares his new method with a police officer’s radar gun, which tracks a car’s speed as it passes.

This vastly improves upon spin-current analysis now in use, which the KU researcher says is akin to analyzing still photographs to determine a car’s speed, long after the car has sped away.

“Spintronics is still in the research phase, and we hope that this new technology can be used in labs to look at problems that interest researchers,” said Zhao. “As spintronics become industrialized, we expect this could become a routine technique to check the quality of devices, for example.”

A five-year CAREER award from the National Science Foundation funded the work by Zhao and Werake.
James Barnes, professor of music composition and music theory, recently was asked to commission a work for the internationally renowned Berlin Philharmonic Orchestra.

Barnes was contacted by Andreas Blau, flute player for the orchestra, about writing a piece for the 2012-13 season. The piece will be a flute concerto and most likely will be part of the regular concert series.

“Andrews Blau contacted me last fall about the possibility of writing this piece,” Barnes said. “To tell you the truth, when I first received the email, I thought it was a prank instigated by my graduate students. It took me a few days to realize that it really was Blau and that he was serious about my composing a work.

“This is a once-in-a-lifetime opportunity. All my life, I have listened to the fantastic recordings of the Berlin Philharmonic. To have the chance to compose something for this orchestra is a great honor.”

Barnes met with Blau in Munich while Barnes was in Germany to do a composition workshop with German and Italian composers. Barnes plans to finalize the piece in a year.

Currently the director for the division of music theory and composition, Barnes teaches music composition, orchestration, arranging and wind band history/repertoire courses. At KU, he has served as staff arranger and assistant and, later, associate director of bands for 21 years. He recently completed his 37th year of teaching at KU.

His numerous publications for concert band and orchestra are performed worldwide. His works — including six symphonies and two concertos — have been performed at such venues as Tanglewood, Boston Symphony Hall, Lincoln Center, Carnegie Hall, the Kennedy Center in Washington, D.C., Tchaikovsky Hall in Moscow and the Tokyo Metropolitan Concert Hall.

Barnes twice received the coveted American Bandmasters Association Ostwald Award for outstanding contemporary wind band music. He has been the recipient of numerous American Society of Composers, Authors and Publishers Awards, the Kappa Kappa Psi Distinguished Service to Music Medal and the Bohumil Makovsky Award for Outstanding College Band Conductors. Barnes recently was awarded the first BMI Award for Excellence in Teaching Creativity from the Music Educators National Conference. The world-famous Tokyo Kosei Wind Orchestra has recorded three compact discs of his music. Southern Music Co. has released three albums of his compositions, including “Symphonies,” a double CD featuring four of his symphonies for band.

Over the years, Barnes has been commissioned to
compose works for all five of the major American military bands in Washington, D.C. A recent CD release by the United States Air Force Band features two different works by Barnes: “Dreamers,” written to commemorate the 100th anniversary of powered flight by the Wright brothers, and “Wild Blue Yonder,” commissioned to commemorate the 60th anniversary of the Air Force.

Barnes has traveled extensively as a guest composer, conductor and lecturer throughout the United States, Europe, Australia, Taiwan and Singapore. He has guest conducted in Japan more than 35 times. He is a member of the American Society of Composers, Authors and Publishers, the American Bandmasters Association and numerous other professional organizations and societies.

Audio-Reader's 'For Your Ears Only' offers all things music Sept. 17, 18

Music for all tastes, rare gems for collectors and a bevy of stereo equipment will be available for bargain prices at the eighth annual “For Your Ears Only” sale, a fundraiser benefiting Audio-Reader.

The sale takes place from 6 to 9 p.m. Friday, Sept. 17, and 9 a.m. to 4 p.m. Saturday, Sept. 18, in Building 21 at the Douglas County Fairgrounds, 2120 Harper St., in Lawrence. Admission for Friday night, which features prize giveaways, free food donated by local restaurants and first pick through an extensive selection, is $10 at the door. Advance tickets are available for $7 at Audio-Reader, 1120 W. 11th St., in Lawrence. Admission is free on Saturday, and prices will be marked down throughout the day.

This year’s inventory features an extensive selection of jazz and big band record collections in pristine condition, donated by collectors in Douglas County. This includes a Smithsonian big band collection, Bluebird label big band collection, jazz heritage collection, King Oliver History of Jazz collection and many more. There are also hundreds of CDs covering the audio spectrum from rock, R&B, pop, opera, country, bluegrass and holiday music. Most records are $1 and CDs are $3.

“We have more CDs this year than we’ve ever had,” said Feloniz Lovato-Winston, event coordinator for the sale. “You can buy some great CDs from us at bargain prices and upload them to your computer or MP3 player.”

Shoppers in the market for audio equipment will have a plethora of goods to choose from, including collectible 45 RPM record players, turntables, DVD players, reel to reel players, disc changers, tuners, amps, receivers and speakers. The inventory includes a pair of Bose 901 speakers and sets from brands such as Philips, Martin, Advent, SPL, Sound Tech and many more.

Bill Anderson, program director for KCUR in Kansas City, which has served as a drop site for “For Your Ears Only” donations, is a big fan of the sale.

“I’ve been to past Audio-Reader sales and have picked up a drum set, LPs and hi-fi equipment,” said Anderson. “This year will be no different. I’ve seen some great audio equipment coming in and plan to take advantage of the blow out sale prices. I have my eyes on a particular pair of speakers.”

Audio-Reader is a free reading and information service for anyone who cannot read conventional print because of blindness or other visual, physical or
The annual Women of Distinction calendar features accomplished faculty, staff and students from across the university.
'Women of Distinction' calendars recognize outstanding faculty, staff, students

Twenty-four women from across KU are featured on the 2010-11 Women of Distinction calendar. They were honored Aug. 30 with a reception.

The women represent faculty, staff and students. Some are recent graduates. All have distinguished achievements in their work on campus and in communities locally, regionally and abroad.

The three faculty members selected this year are Alice Bean, professor of physics and astronomy; Estele Gavosto, associate professor of mathematics and associate director of KU’s Office for Diversity in Science Training; and Donna K. Ginther, professor of economics and director of KU’s Center for Economic and Business Analysis in the Institute for Policy and Social Research.

Staff members featured are Laura Isdell, assistant director of student housing; Precious Porras, assistant director of multicultural affairs; Adrienne Collins Runnebaum, assistant director of multicultural affairs; and Kristin A. Trendel, director of New Student Orientation. They were recognized for their role in championing student achievement.

Four students were recognized for individual achievements and 11 more were recognized for group accomplishments in working with athletics, the community and the campus organization Engineers Without Borders. Two are graduate students: Aslihan Demirkaya, a doctoral student from Turkey and a graduate teaching assistant in mathematics; and Porras, a doctoral student and member of the Office of Multicultural Affairs staff.

Calendars are free, although donations are accepted. They are available at numerous locations, including the KU Bookstores in the Kansas Union in Lawrence and at the KU Medical Center in Kansas City, Kan., and the Edwards Campus in Overland Park. Other Lawrence campus locations include the Student Involvement and Leadership Center in the Kansas Union, on-campus housing facilities and various university departments.

Horn lands grant to help improve education for
Preschools often lack a system for modifying their curriculum for children with disabilities. A new three-year, $1.5 million grant to Eva Horn, professor of special education, will make it possible for educators to provide a more appropriate and challenging curriculum for preschoolers with disabilities and help them be better prepared for kindergarten.

Funded by the Institute of Education Sciences in the U.S. Department of Education, the project will develop, refine and test a comprehensive curriculum framework so children with or at significant risk for disabilities can participate and make meaningful progress in preschool.

According to a 2006 Department of Education study, almost 1 million U.S. children age 5 and younger receive services under the Individuals with Disabilities Act. The act mandates that all children with disabilities be held to “high expectations” and ensured participation and progress in the same general curriculum taught to children without disabilities. But achieving that goal is complicated by the lack of monitoring systems in preschools, methods that are commonplace in elementary schools.

With the Institute of Education Sciences grant, Horn and colleagues at KU, Indiana University and the University of Maryland will use the Children’s School Success Curriculum Model and field test a version with 4-year-olds using universal design for learning modifications. Patterned after universal design in architecture, universal design for learning calls for multiple methods to help students learn, express what they’ve learned and stay motivated.

“We will ensure that the curriculum meets UDL principles so that all children show progress,” Horn said. “We also will develop procedures so that teachers can individualize the curriculum and meet the learning needs of all children, with a special focus on those with disabilities.”

The Children’s School Success Curriculum Model was developed through an earlier grant from the National Institutes of Health to Horn and colleagues. In that project, the researchers created, implemented and evaluated the curriculum for at-risk children. They documented that children made measurable progress using the curriculum although children with disabilities did not progress to the same extent as children without disabilities.

“Historically in early childhood education, our main concern has been to make preschool fun and engaging for kids,” Horn said. “We haven’t thought about what things we want preschoolers to learn by the end of the year. But what if we can achieve happiness and joy at the same time we think about where we want to take them?”

“The goal is not to bring the children with disabilities up to the same levels as children without disabilities but to ensure that they make significant progress compared to where they started, Horn said.

“Our research has shown that children who benefit the most from a high-quality curriculum are children who are the most in need, that children who are at risk actually gain the most.”

Horn said another goal of the grant is to determine if the approach is feasible in a real-world preschool setting.

“Other interventions have been proven effective but take the kind of resources and
staff that preschools simply don’t have,” she said.

The research will be conducted at preschools in eastern Kansas, urban areas of Maryland and rural West Virginia.

Co-investigator at KU is Susan Palmer, associate research professor of special education. Horn and Palmer are affiliated with KU’s Life Span Institute, one of the largest research and development programs in the nation for the prevention and treatment of developmental disabilities.

Other investigators are Gretchen Butera, associate professor of special education at Indiana University, and Joan Lieber, professor of special education at the University of Maryland.