An artist's rendering shows what the new Center for Design Research will look like. This view shows the center and the nearby Chamney Barn. The center will house a collaborative environment for research in sustainable energy.

**A sustainable future**

**Students building center to explore new energy solutions**
Grounds that were once home to a dairy farm that supplied milk to the city will soon be on the forefront of sustainable energy research. Next to a historic barn, a new center will house wind turbines, an electric vehicle charging station and a green roof.

Studio 804, the innovative design-build studio at the School of Architecture, Design and Planning, has broken ground on the Center for Design Research. The studio, led by Dan Rockhill, the J.L. Constant Distinguished Professor of Architecture, has completed plans and begun site excavations for the new center, an incubator for innovations in products and services. The facility, which will be one of the first LEED platinum-certified buildings on campus and in Lawrence, will be near the Chamney house and barn on Bob Billings Parkway, west of KU’s main campus.

The facility will be adjacent to the property’s existing buildings and will feature several wind turbines rising above the structure, a green roof and a vented wall that will promote cross ventilation in the summer and circulation of warm air in the winter.

The center also will feature an electric vehicle charging system that will open new avenues for research. Gregory Thomas, professor of design, said several faculty members have worked with Westar Energy to provide the facility with a smart grid meter. The smart meter will enable other "smart" appliances and technology, including the charging station, the first in Lawrence, to continually provide data on energy use at the site. Corporations such as General Electric are providing technology that will communicate with the smart meter and enable users to regulate the use of lighting, appliances, security and other tasks from within or outside the facility.

The center will encourage collaboration among faculty and students in many disciplines to address challenges and create new knowledge in sustainable practices in fields such as architecture, design, engineering and business. The facility will showcase new technologies and be open to the public to share knowledge developed at the center.

“This rendering shows another view of the Center for Design Research, set to be completed in May. By integrating green building materials and methods in every aspect of the design, construction and operation of the facility, a healthy environment promoting energy and resource efficiency can be achieved that will serve as a milestone in the university’s commitment to sustainable practices.” Studio 804 wrote in its project proposal.

Students in Studio 804 began designing the facility late last fall. They hope to have the project mostly complete by mid-May. Students will be involved in all aspects, including preparation of construction documents, obtaining proper city and state approvals, construction and raising funds.

“We do everything. In most cases we do almost every aspect of construction as well,” Rockhill said of Studio 804. “We give students a chance to synthesize their education by being involved in all aspects of such a project. It makes them better architects.”

The 22 students involved in the project are raising funds; no public money will be used. KU Endowment, the university’s fundraising and fund-management foundation, owns the land. Trustees for KU Endowment approved plans submitted by the school for the facility in February.

Each year, the studio designs and builds a structure. Students have constructed houses in Kansas City, Kan., neighborhoods and designed a community arts center — the state’s first LEED platinum-certified building — for Greensburg after it was devastated by a 2008 tornado. The projects have used innovative technologies
such as wind turbines and photovoltaics to generate sustainable energy.

“We had trouble keeping people out of the basement, because everybody was so fascinated by what was going on there,” Rockhill said of Greensburg’s 5-4-7 Arts Center, which included sustainable energy technologies in its basement.

John Gaunt, dean of the School of Architecture, Design and Planning, conceived the idea for Studio 804’s current project and said it will be a project that KU and the Lawrence community can be proud of.

“The university gains in the many ways that result from the realization of its educational mission in providing these students with an exceptional experience, possibly the very best of its kind,” Gaunt said. “It gains through this singular contribution to its collective excellence — in both substance and reputation. The community gains through the demonstration of what can be achieved through this extraordinary effort, including enhanced understanding of building methods, the achievement of sustainability and a broadened outlook concerning aesthetic possibilities.”

The former Chamney Dairy Farm is on KU’s west campus and was established in 1912. Harold Chamney was an influential community member, providing milk to hundreds of homes and local grocery stores. He was recognized by the state as one of 10 “Master Farmers of Kansas” in the 1930s.

“We saw a way to take advantage of a pretty unique location and share with the public some of the newest technologies,” Rockhill said. “I think this will contribute a lot to the conversation about sustainability and help show the university’s commitment to the community.”
Joseph Donnelly, an internationally recognized scholar in obesity and weight loss, has joined the KU Medical Center, but will continue his research and teaching on the Lawrence campus as well.
Acclaimed weight loss researcher Joseph Donnelly joins medical center, will continue work in Lawrence

New lab, expanded possibilities behind shift

Joseph Donnelly, an internationally acclaimed scholar in obesity and weight loss, has changed his appointment to the KU Medical Center to expand his research. The move will not affect the research his group is performing on the Lawrence campus.

“To most observers there won’t be a noticeable difference,” said Donnelly, who directs the Center for Physical Activity and Weight Management, part of the Life Span Institute.

Donnelly officially joined the Cardiovascular Research Institute, part of the KU Medical Center’s Department of Internal Medicine, on Feb. 6. His research group had been conducting work in Kansas City for some time and will continue to work in both Lawrence and Kansas City. About 15 full-time and 50 part-time employees work in his research groups between the two campuses.

“The plan is to build a lab there (KU Medical Center) in about a year,” Donnelly said. “It will be located in the Orthopedic Sports Medicine Clinic, which is attached to the Kirmayer Fitness Center.”

The new lab will enable his group to expand its research and community-based programs that work with individuals to fight obesity. Since 2000, Donnelly has received more than $20 million in National Institutes of Health grants for his research. The new lab will provide even more opportunities.

“There’s a bigger population in Kansas City, and there’s a greater number of human subjects researchers in the area that do similar work to what we do,” Donnelly said. “It seemed relatively logical to make the move. We think it’s going to expand what we’re able to do and open new doors for work with more of our colleagues.”

In addition to the new lab in Kansas City, Donnelly will continue to maintain the Energy Balance Laboratory in Robinson Center and lab space near Bob Billings Parkway and Wakarusa Drive in Lawrence.

Professor profile: Playing with design

Nils Gore, associate professor of architecture

There’s an old saying that all work and no play makes Jack a dull boy. It turns out all study and no play makes for a less-prepared architecture student.

In a new KU YouTube video, Nils Gore, associate professor of architecture, talks about using play in the classroom, having students handle building materials as part of education and students taking part in public service projects in the wake of Hurricane Katrina. (To see the video, visit http://www.oread.ku.edu/~or ead/2011/march/7/stories/gore.shtml.)

Gore believes in having his students “play” as part of their classes. Before designing buildings professionally, they try new things in a setting unlike the traditional classroom setting.
“I started using play as a way of having students come to solutions that they wouldn’t otherwise have,” Gore said. “Through accident, through serendipity, from learning vicariously through their classmates. Students are geared toward success all the time. If you term it as play it takes the fear away, and it makes it kind of a lower stakes game, so that if they fail on one of their play experiments, it’s not a big deal.”

While Gore’s students are playing in class and when they’re working on projects, they get their hands dirty. Instead of simply talking about designing a building and letting someone else worry about building it, the students handle the materials and learn how to do the work of constructing a building. The practice makes a more well rounded architect.

“It’s really very possible for me to design something that can’t be built by somebody else,” Gore said. “Now if I’ve had to engage in some aspect of that (building) experience when I was a student in college, that may give me some insight into what a person out in the field is going to be facing. And my hope is I’ll be able to be smarter about what I design so that the outcome, when it’s all done, meets my expectations.”

As students learn to design and build projects in the real world, they’ve been able to put those skills to use to serve others, before they leave school. After Hurricane Katrina, Gore’s classes partnered with a New Orleans neighborhood to help revitalize their shared community. A city bursting with culture, KU’s School of Architecture, Design and Planning worked with a neighborhood organization known as “the Porch” to help retain and revitalize the spirit of community and the arts.

“After Katrina we decided as a school that we wanted to do something. There was a lot of need down there. We could provide both help, and lessons for our students if we went down there,” Gore said.

“We built notice boards. This was before they had electricity, before they had Internet back and they wanted some sort of means to post information in the neighborhood. We built a tool shed, a shade structure, a mobile stage so they could have performances. As part of their cultural center, we built an outdoor classroom.”

In the years since, the neighborhood has had success with the project, gaining ongoing funding, hiring a full-time director and holding art classes for children. The project was an example of how an architect that is able to both design and build can both make a living and a difference.

“When a student achieves success at doing something that they’ve never done before, it’s really gratifying to them and boosts their self confidence,” Gore said. “Also when you go to a place like New Orleans and you’re actually doing something that you see is doing some good for a community in need, that helps your self esteem a lot.”

KU's excellence in radar research cited in selection to host distinguished conference

In recognition of its accomplished history and continued excellence in radar research and development, KU was selected to lead the most distinguished conference within the field.

The 2011 IEEE Radar Conference will be held for the first time May 23-27 in Kansas City, and its theme, “In the Eye of the Storm,” acknowledges the unpredictable Midwestern weather and the importance of radar in tracking severe storms. Nearly 500 leading scholars and industry practitioners from 24 countries will address how radar can measure climate change, support civil applications such as air traffic control, and advance technology to protect military personnel. The conference will take place at the Westin Crown Center. The IEEE is the world’s largest professional association for
the advancement of technology.

“It’s a great honor for KU to serve in this capacity,” said Shannon Blunt, associate professor of electrical engineering and computer science and general chair of the conference.

James Stiles, associate professor of electrical engineering and computer science, will serve as the general co-chair. Christopher Allen, professor of electrical engineering and computer science, and KU alumnus Nathan Goodman, now an associate professor at the University of Arizona, are the technical chairs. Richard Moore, distinguished professor emeritus of electrical engineering and computer science, who pioneered the field of radar remote sensing of the environment, is the honorary chair.

Allen, Blunt and Stiles are part of the Radar Systems and Remote Sensing Lab at the Information and Telecommunication Technology Center. The breadth of the lab’s research runs the gamut from the development of hardware systems for measuring the environmental phenomena to the theoretical investigation of futuristic sensor modalities. Over its more than 40 year history, the lab’s research has been supported by NASA, the National Science Foundation and multiple agencies within the Department of Defense.

The conference falls under the purview of the Institute of Electrical and Electronic Engineers, the world’s largest professional association for the advancement of technology with more than 400,000 members. The 2011 IEEE Radar Conference is sponsored by the Kansas City Section of the organization and its Aerospace and Electronic Systems Society, along with technical involvement from the group’s Microwave Theory and Techniques Society and Geoscience and Remote Sensing Society.

Reported campus crimes drop in 2010; robberies fall to zero

Targeted efforts lead to more drug, alcohol arrests

Reported crimes on the Lawrence campus declined again in 2010, yet arrests for drug and alcohol violations increased thanks to a targeted effort, according to the Public Safety Office.

Fewer incidents of assault, theft and robbery accounted for the majority of the decrease on campus. No robberies were reported in 2010, a marked decrease from the eight reported in 2009.

“The department took a very proactive stance in 2010, placing uniformed and plainclothes officers in the areas where the robberies had occurred in 2009,” Chief Ralph Oliver said. “Being able to have a greater presence in those areas really made a difference.”

Additionally, Public Safety officers participated in a grant-funded initiative titled Project ID, whose primary focus was to educate minors, bar owners and liquor store owners about the hazards and consequences of using fake identification cards. As part of the project, several arrests were made for minor in possession and possession of a fake ID. The grant was obtained by DCCCA. Other law enforcement agencies participating included the Lawrence Police Department, the Douglas County Sheriff’s Office and the state Division of Alcohol Beverage Control.

Reported crimes are down 22 percent since 2000. A full listing of crime statistics from 2000 to 2010 can be found at www.ku.edu/~kucops.
Faculty, staff encouraged to represent KU in Kansas City Corporate Challenge

You don’t have to be a student athlete to represent KU in Olympic-style events.

KU is once again taking part in the Kansas City Corporate Challenge, and all faculty and staff are eligible to compete in events including swimming, softball, bowling, darts, tug of war and many others.

Started in 1980, the Kansas City Corporate Challenge is an event that brings employees of companies from around the Kansas City area together in friendly competition. The Office of the Provost, Human Resources and Equal Opportunity, Edwards Campus, Unclassified Senate and KU Medical Center are co-sponsoring KU’s participation to encourage wellness, build morale and promote KU in the Kansas City area. The sponsors have covered the registration fee for all events.

A complete list of events and information about the event’s mission are available at kccorporatechallenge.com. Individuals who do not wish to take part in an event can still be part of the challenge by volunteering. Volunteers are needed in a variety of areas, and KU will receive points for everyone who takes part, including event participants and volunteers.

Challenge events will be held in and around the Kansas City area on nights and weekends during May and June. Participants are not required to commit to the entire two months, and specific event dates are available at the organization’s website.

To sign up for an event, visit kccorporatechallenge.com and click on the “challenge manager” icon on the right side of the page. Users will need to create a profile by clicking on the link for “create profile.” Those who have previously created a profile will only need to update it and complete a new waiver. Individuals creating a new profile should select “University of Kansas” and enter the company password ku7632 when prompted, then complete an electronic waiver.

The deadline for 3 on 3 basketball, darts, disc golf, dodgeball, fishing, flag football, golf, pool, racquetball, 3 on 3 soccer, softball, table tennis, tennis, volleyball and weightlifting is March 18. Deadline for other events is April 15.

Anyone interested in helping to coordinate KU’s participation or would like to be an event coordinator should e-mail benefits@ku.edu.

Pharmacy dean honored for efforts to link students, senior citizens

Kenneth Audus, dean of the School of Pharmacy, has been named the recipient of the 2011 Jim and Virginia Seaver Award from Douglas County Senior Services.

Audus was chosen for the award because of his work to partner KU students with local senior citizens in educational settings, such as flu shot clinics, bone density
scanning programs and lunch seminars on pharmaceuticals.

Kenneth Audus

“He’s the kind of person who just rolls up his sleeves and gets it done,” Jessie Kwatamdia, program director at Douglas County Senior Services, said. “He’s a servant leader. He leads by serving others. Dean Audus wants students to have life experiences working with older adults. Often he shows up to show support for the programs and the students. He’s done so much behind the scenes and invested so much in the community.”

The award will be presented at a ceremony April 28.

Audus has been dean since 2004. He earned his doctorate and did postdoctoral research at KU before becoming a faculty member. He said he is honored by the award and will continue to encourage students to work with senior citizens.

“It’s appreciated and encourages me to continue,” Audus said of the award. “Seniors and students benefit from interactions together. As pharmacists, seniors are the major group our students will interact with. The 65 and over age group will double in number in the next 20 years. That’s lots of people with lots of questions about their meds.”

In his tenure as dean, Audus has led the school through an expansion and move into a new facility. The school’s new west campus facility opened in 2010. The new branch in Wichita will allow the school to increase its annual enrollment from 105 to nearly 200. The school also consistently ranks near the top in research funding from the National Institutes of Health. The support is considered an important part of a school of pharmacy’s national reputation. KU has been in the top five for 10 consecutive years and in the top six every year since 1995.

For more information about the award ceremony, contact Kwatamdia at 785-842-0543 or jessie@sunflower.com.

Architecture professors honored for work to increase diversity

Carswell, Jackson among only three in nation to earn award

Bill Carswell and Hobart Jackson, associate professors of architecture, have been selected for the Association of Collegiate Schools of Architecture Diversity Achievement Award 2011. They will receive the honor at the association’s annual meeting in March in Montreal.

The award “honors the work of faculty, administrators and students in creating effective methods and models to achieve greater diversity in curricula, school personnel and student bodies,” according to the association.

Carswell and Jackson direct KU’s Multicultural Architecture Scholars Program, also known as MASP. They launched the program in 2003. With startup financial assistance
from a KU alumnus, and using and adapting the structure and rubrics of the School of Business Multicultural Scholars Program, they drafted a sustainable plan to increase the number of high-achieving multicultural students who graduate from the School of Architecture, Design and Planning.

Bill Carswell

“We’re grateful to Bill and Hobart for their commitment to this important program, a commitment that has endured through the eight years of MASP’s existence,” said John Gaunt, dean of the School of Architecture, Design and Planning. “This program benefits the school, the university and, most importantly, the students themselves — providing the guidance that supports their success and enriches our diversity.”

Hobart Jackson

MASP customizes KU’s general Multicultural Scholars Program structure and employs three strategies for recruiting and retaining multicultural scholars: intensive academic mentoring, cultural and professional socialization and scholarship funding for MASP scholars.

Each MASP Scholar receives

• Academic mentoring sessions that cover academic skills building; crisis management advising; and study abroad and internship advice and assistance

• Social-cultural and professional development activities, including attendance at music, opera and dance performances; architectural site and office visits with professional architects; and career-preparatory workshops

• Need- and performance-determined financial scholarship with discretionary additional financial assistance for study abroad experiences or conferences (all MASP scholarship funds come from private donor sources)

After graduation, MASP scholars act as a leadership corps to be professional advisers and mentors for future multicultural high-achieving high school students who want information on the profession of architecture and educational and career paths within it.

Carswell and Jackson join David Fox of the University of Tennessee-Knoxville as this year’s recipients of the award.
Kristi Neufeld, associate professor of molecular biosciences, and her graduate student Erick Spears study how a molecule, a protein called APC, suppresses colon cancer. In a recent article in the Journal of Biological Chemistry, they explain how a drug might someday treat the disease by blocking the action of one of APC’s molecular opponents.

Currently, no drug specifically treats colon cancer. The vast majority of cases derive from a faulty gene in intestinal cells that produces a defective APC protein. APC — whose hefty full name is Adenomatous Polyposis Coli — is named after the intestinal polyps it helps prevent. Polyps can turn malignant if not removed by surgery.

“Many researchers are trying to figure out now why this protein is so critical for preventing polyp formation,” Neufeld said. “Mine has been one of those labs.”

Neufeld’s work concerns the health of an astonishingly sophisticated organ. The last part of the digestive system, the colon absorbs water, salt, some nutrients, and keeps symbiotic bacteria in check. Key to its success are stem cells in its lining. These cells
reproduce or mature to take different jobs, and then shed when they wear out.

Inside the cells, a governing board of proteins decides whether more cells should reproduce — divide — or take on different jobs — differentiate. Scientists have previously determined that APC always advises differentiation. At the same time, another protein board member pushes for division. It is named Musashi after a renowned samurai swordsman.

APC and Musashi not only have opposite agendas in the colon, Neufeld and Spears now find, but also actively sabotage each other: behind the scenes, APC controls how many Musashi proteins get made and vice versa. When APC is absent, Musashi in a sense shouts louder, causing cells to proliferate out of control and form polyps and tumors.

The health of the colon requires both Musashi and APC. Restoring APC to people who lack a proper copy of its gene is still out of reach. But a designer drug may be able to subdue Musashi.

“Eighty percent of colon cancers will have a nonfunctioning APC protein. Technology doesn’t allow us to fix that,” Neufeld said. “Keeping Musashi controlled — we can try to do that in another way.”

Next, the team will look for a drug that will inhibit Musashi and will test their hypothesis in mice. The current work was done in cultures of human colon cells.

“Talking to different people, I am struck by how prevalent the disease is,” Neufeld said. “The research that I do is still years away from something that would benefit patients directly. But we’re getting closer. And I do think about how great it would be if something we found in the lab could be translated into a real therapy.”

The work was funded by the Kansas Masonic Cancer Research Institute and the Kansas IdeA Network of Biomedical Research Excellence Program of the National Center for Research Resources.

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**Diana Carlin selected to lead graduate education at Saint Louis University**

**Professor, administrator has been at KU for 24 years**

Diana Carlin, professor of communication studies and former dean of the Graduate School and International Programs, has been named associate vice president for graduate education at Saint Louis University.

Carlin has begun work at Saint Louis on an intermittent basis and will start full time June 1. In the new role, Carlin will oversee graduate education and hold a tenured faculty position in the Department of Communication in the College of Arts and Sciences.

A faculty member at KU since 1987, Carlin’s research focuses on political communication, debates, women in politics, speech writing and public sphere. She formed Debate Watch, a national research project focusing on presidential debates in 1996. She served on the advisory board of the Commission on Presidential Debates for 13 years.

From 2000 to 2007, Carlin was dean of the Graduate School and International Programs. As dean, she
helped graduate certificate programs and started the Global Awareness Program, which won a NASPA — Student Affairs Administrators in Higher Education — best practices award. KU also won a Paul Simon Award for campus internationalization, which was initiated by International Programs while Carlin was dean.

Her international experience continued in 2007-08 when she was dean in residence and director of international outreach at the Council of Graduate Schools in Washington, D.C. She has worked for the U.S. State Department and nongovernment entities to educate and encourage citizens and candidates to take part in debates in Russia, Moldova, Benin, Belarus and Georgia.

School of Engineering marks 100 years of Engineering Expo

Hundreds of elementary and secondary school students from around the state and region came to campus for the School of Engineering’s Engineering Expo Feb. 25 and 26. The event marked a century of fun and education this year.

The free annual event and open house challenges students to design and construct projects for use in one of 11 engineering competitions.

“The egg drop competition and pasta bridge competition are two of the traditional favorites,” said Engineering Expo co-chair Megan Ketchum, a junior in chemical engineering from Ottawa. “Students of any age can have fun with those. Anybody can design a way to try to keep an egg safe during a one-story drop, or see how much weight a bridge of pasta will support. Plus, breaking a pasta bridge is really fun.”

In addition to the competitions for K-12 students, the public viewed student organization displays and demonstrations, and several professors’ labs were open for tours. Engineering Student Council officers also gave a presentation at the Lied Center.

Two new competitions made their debut at the 2011 Expo. Students in aerospace engineering sponsored a competition to design the most efficient wind turbine. And KU’s chemistry department and Chemistry Club took part in their first Engineering Expo in several years by hosting a competition that challenged high school students to design a biodiesel fuel with the highest energy content.

Also new to Expo this year was Engineering Week, or E-Week. Organizers planned a weeklong series of competitions for KU students on campus to coincide with National Engineers Week. It included a scavenger hunt, paper airplane challenge and window painting.

In addition to creating, developing and innovating new devices at this year’s Expo, visitors had the chance to see the rich history of the event. This year marked the 100th anniversary of the School of Engineering’s first Expo in 1911. To commemorate the centennial, historical photos, newspaper clippings and other items were displayed in the Eaton Hall atrium.

“We’re trying to incorporate some of the older Expo themes, with new ideas as well,” said Ketchum. “We hope to bridge history and the future. One of the most interesting things people can see is a photo of a model of Lawrence that the civil engineering department constructed some time in the 1950s. It was about the size of a room,” Ketchum said.

Ketchum said the event has evolved over the years. In its early days, Expo was a parade through campus, with different engineering disciplines constructing floats with their latest innovations and competing for best display.