



Report to the Kentucky Council on Postsecondary Education

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Energy Conservation Pays Off Again During Heat Wave

Similar to the energy savings employed over the Thanksgiving and holiday breaks last year, NKU has saved thousands of dollars in energy consumption during this summer's heat wave by simply enlisting students, faculty and staff to shut off whatever they could.

Expanding a campus-wide effort already in place to save both energy consumption and dollars, NKU reduced lighting in public areas, turned off water coolers, shut down food service equipment that was temporarily unneeded and shut down water pumps in the fountain and lake waterfalls, among other measures. Individuals turned off lights, appliances, computers and equipment not in use. The largest potential energy and cost savings NKU offers, in addition to these individual efforts, continues to come from high-quality building and equipment maintenance. Last year NKU re-roofed three buildings and in the process doubled the amount of insulation on the buildings, while installing a highly reflective "cool" roof on another campus building.

Based on the significant savings from last fall and winter, NKU will likely continue the elaborate campus shut down, including the closing of many parking lots and garages (including no lighting or snow removal), the closing of many campus buildings not in use (including turning off most elevators, lighting and reduction of temperatures) and other physical plant systems being turned off.

NKU Biology Professor Recognized for Mentoring Efforts

Dr. Kristi Haik, an associate biology professor at Northern Kentucky University, has received the Council on Undergraduate Research (CUR) Biology Division Mentor Award for her efforts in serving as a role model to students and other mentors of undergraduate research nationwide.

The award was highly competitive. CUR represents over 900 institutions and received applicants from across the country. "To be able to say that NKU is the winner of a national undergraduate research mentoring award is so huge because NKU has been pushing hard to support undergraduate research," Dr. Haik said. "Everyone here is so supportive. They're fantastic."

Twenty-three students mentored by Dr. Haik have completed 73 abstracts at local, state and national conferences. These students also wrote 23 grant proposals, 22 in which were awarded. Dr. Haik and her students base most of their research around the brain, specifically, developing models and treatments for neurological diseases, disorders and injuries.

Their current projects include investigating uses of nanotechnology, Parkinson's disease and heavy metal toxicity.

NKU Geology Lab Tabbed by Popular Science as One of '30 Awesome College Labs'

When Popular Science magazine set out to find the nation's best science labs, it didn't take long for the publication to find NKU geology professor Hazel Barton. After all, the magazine just last year rated Barton's class among 'Seven of the Country's Coolest SciTech Courses."

From Popular Science... By John B. Carnett

⁶⁶ If you want to be one of the six lucky undergrads to get off the waiting list and into Hazel Barton's course, you'd better like tight spaces, heights, the dark, bats and getting dirty—and that's just to get to the bacteria. Unlike microbiology majors at other schools, the ones laboring over microscopes and petri dishes all day, Barton's students study extremophile microbes where they thrive: caves.

Most of Barton's students cave close to home, measuring groundwater pollution and studying links between microbes and cave formations. But some, with NASA assistance, accompany Barton to explore the longest quartzite cave on the planet, a rare 10-mile-long labyrinth of pink and amber sandstone on Venezuela's Roraima plateau. It teems with microbes that researchers think could provide clues to what life might look like on Mars. Most caves are formed by limestone, a carbonate rock. The rock of Roraima, however, is mostly silicate, which is also found on Mars. The team will collect the nitrogen-eating, ammonia-spewing microbes and other strange organisms that live in the walls. Back at the lab, students will observe the bacteria's behavior under varying conditions, gathering information that could help NASA hone its search for extraterrestrial life. **?**?

