

Kentucky Geological Survey

2009-2014 Strategic Plan

Mission, Vision, and Values Statements

MISSION

First established in 1838, the Kentucky Geological Survey has investigated mineral, energy and water resources, and geologic hazards of Kentucky for 170 years. As the official geologic research organization for the Commonwealth of Kentucky, our mission is focused on research in earth resources, public service, and the dissemination of our knowledge and experience about earth processes.

Our mission is to increase knowledge and understanding of the mineral, energy, and water resources, geologic hazards, and geology of Kentucky for the benefit of the Commonwealth of Kentucky and the nation.

VISION

We aspire to enhance the stature of the University of Kentucky by gaining recognition for the Kentucky Geological Survey as one of the leading state geological surveys in the nation: an institution recognized nationally and internationally for excellence in research and public service in minerals, fossil fuels, water resources, geologic hazards, geologic mapping, and the environment. KGS is positioned to contribute significantly to UK's strategic goals and Top 20 Plan by excelling in research and community engagement.

VALUES

Support for the land-grant mission of the University of Kentucky

Excellence in research

Excellence in public service and community engagement

Interdisciplinary and interagency research and cooperation

Professional and personal development of our staff

Institutional and personal accountability

Quality, safety, and continuous improvement in research programs and administrative procedures

Respect for diversity and human dignity

Respect for the environment and earth resources

Regional, national, and international cooperative research

Preamble

The University of Kentucky's 2009-2014 Strategic Plan renews this institution's faithfulness to the original ideals that gave rise to America's land-grant universities. Threaded through this document is a ceaseless and undaunted commitment to the individual success of students; to research that both stretches the bounds of knowledge and provides practical solutions; and to the provision of extension services, health care, creative experiences, life-long learning, and countless other efforts to improve the lives of Kentuckians wherever they live and work and raise their families. The full text of this plan can be found at www.uky.edu/Provost/strategic_planning/plan.htm.

The Kentucky Geological Survey contributes in some way to each of the Universities 5 major goals, but primarily in two—promoting research and engagement and outreach. KGS has strong programs in each area and seeks to improve those functions for the benefit of the University and the Commonwealth.

Unit Goal 1:

Prepare Students for Leading Roles in an Innovation-driven Economy and Global Society

A university's chief responsibilities are to provide its students with knowledge about the human and natural worlds, train them to organize that knowledge, and teach them to express and apply that knowledge effectively. These pursuits carry with them civic and economic dimensions that are intertwined. Students will be challenged to become active members of their communities, welcoming different points of view and systems of belief while examining and refining their own. They must develop the skills they will need to become productive members of an increasingly educated work force. In a world where jobs and knowledge flow freely across economic sectors and national boundaries, the success of University of Kentucky graduates demands an education that prepares them to participate effectively in an increasingly interdependent global economy and society.

This University is among the handful of American higher education institutions that offer on one campus a full range of academic programs and colleges, including the full spectrum of health science colleges. It must take full advantage of connections across academic programs at all levels of study to encourage international experiences that broaden perspectives, emphasize interdisciplinary and inter-professional training, and inspire student partnerships with faculty to explore knowledge at the fluid borders of academic disciplines. The University must cultivate and celebrate success in the classroom, the laboratory, the performance stage or gallery, the extension office, and the clinic with equal vigor.

While KGS has no regular involvement in student education, we provide a unique resource to students by providing jobs and learning experiences involving skills that are essential in the geosciences workplace but not traditionally taught in academic departments. Students with work experience at KGS are consistently successful in industry workplaces.

Objective 1.1 Ensure that graduates at all levels are able to demonstrate expertise in their disciplines and are prepared to succeed in professional and community settings.

Strategy 1.1.1 Provide opportunities, either through jobs or other learning experiences, for undergraduate and graduate students to enhance their job skills and to mentor professional work behavior

Strategy 1.1.2 Encourage participation in student chapters of professional organizations that KGS staff are members of

Strategy 1.1.3 Serve on graduate committees in academic departments within the University

Unit Goal 1 Metrics

By 2014 the Kentucky Geological Survey will demonstrate achievement of Goal 1 as indicated by the following metrics:

Metric 1-1. Track student engagement and workplace outcomes

Unit Goal 2:

Promote Research and Creative Work to Increase the Intellectual, Social, and Economic Capital of Kentucky and the World Beyond its Borders

As Kentucky's land-grant research university, the University of Kentucky pursues with equal vigor the dual purposes of research: the expansion of the body of knowledge and the translation of basic research into practical innovations for the people of Kentucky and those beyond the state's borders. All missions of the University are infused with and benefit from this dedication to the creation and application of new knowledge. While scholarship often has an immediate impact, experience teaches that the benefit of research and creative work is not always instant or predictable. This University must be Kentucky's most celebrated locale where creative work can be pursued purely for the advancement of knowledge and enlightenment. This is the true meaning of intellectual capital.

Research and creative activity in the 21st Century has been re-invented as a thoroughly interdisciplinary and collaborative pursuit, employing theoretical and clinical constructs, analytical tools, and laboratory techniques scarcely imaginable a few decades ago. UK has made significant advances in its research and creative activities in recent years and enthusiastically embraces the challenge of substantially increasing the volume and the quality of those efforts in the next decade.

Objective 2.1 Increase research and scholarly productivity.

Strategy 2.1.1 Develop new program for geothermal information technology.

Strategy 2.1.2 Utilize LiDAR data to develop a robust landslide research program.

Strategy 2.1.3 Develop a mentoring program to encourage grant development among mid and upper level professional staff.

Strategy 2.1.4 Develop collaborative research with medical and public health programs with regard to the role water quality plays in the health of Kentucky's citizens.

Strategy 2.1.5 Develop collaborations with other UK departments to expand potential for grant development

Strategy 2.1.6 Seek permanent funding to restore 4 research positions lost due to budget cuts

Objective 2.2 Expand research capacity

Strategy 2.2.1 Acquire funding to upgrade the Kentucky seismic network to digital communications to enhance data transfer and complete installation of the CUSSO vertical seismic array.

Strategy 2.2.2 Acquire new deep subsurface seismic data to expand knowledge of petroleum reservoirs and CO₂ sequestration sites.

Strategy 2.2.3 Acquire geophysical equipment and remote-sensing tools to expand capabilities for defining groundwater resources and geologic hazards.

Strategy 2.2.4 Acquire the necessary equipment to make the Geoprobe drill operational to increase the drilling capacity for surficial materials characterization.

Objective 2.3 Enhance the impact and public awareness of the University's research and scholarship on the knowledge-based economy of Kentucky and the nation.

Strategy 2.3.1 Promote the use of KGS's digital geologic maps within Kentucky's Universities and Colleges.

Strategy 2.3.2 Develop technology transfer workshops for continuing education of registered professional geologists.

Strategy 2.3.3 Promote use of KGS maps and data through the Agricultural Extension Service offices.

Unit Goal 2 Metrics

By 2014 the Kentucky Geological Survey will demonstrate achievement of Goal 2 as indicated by the following metrics:

Metric 2-1. Increase average annual number of grants

Metric 2-2. Complete installation and upgrade of seismic network

Metric 2-3. Document public awareness successes

Unit Goal 3:

Develop the Human and Physical Resources of the University to Achieve the Institution's Top 20 Goals

A university is only as strong as the people who populate it and the tools – both physical and professional – they are given to work effectively. The strength of the University of Kentucky and its capacity to achieve the goal of Top 20 status is defined by the faculty and staff who give the institution its personality and its vibrancy.

The University is committed to recruiting and retaining a talented and committed cadre of faculty and staff. Professionals of exceptional ability and the capacity for growth should be the hallmark of every department and every unit, regardless of mission or portfolio.

The University's effort to attract talent will know no boundary, consistently reaching out to every sector of the mosaic that defines humanity. The University will welcome people of talent and commitment regardless of gender or race or background or belief to ensure that the embrace of diversity permeates every classroom, laboratory, and auxiliary facility.

The University is equally committed to providing every opportunity to its populace to make fuller each employee's personal and professional self and their capacity for contribution to the work of the institution. The University is dedicated to creating and sustaining a work environment that positions faculty and staff for success.

And the University will work diligently to provide to faculty, staff, and students the infrastructure necessary for individual and collective advance. Excellence in the provision of information technology, library resources, and facilities is central to University operations, recognizing that human talent flourishes most readily in facilities where the most effective tools exist. Of equal importance is the call to be an exemplar in the application of sustainability principles and practices and establish an institutional culture of sustainability.

Objective 3.1 Enhance the success, retention, and advancement of all cadres of faculty and professional staff engaged in the varied missions of the University.

Strategy 3.1.1 Support KGS staff in efforts to pursue advanced degrees or other kinds of continuing education.

Strategy 3.1.2 Create organizational recognition and rewards for research support efforts such as data collection, database creation, and management.

Objective 3.2 Strengthen the integration and utilization of innovative, cost-effective information technology solutions to enhance all missions of the University.

Strategy 3.2.1 Develop digital geotechnical database of drilling information acquired during building construction projects to characterize the geologic and hydrologic environment of the main campus.

Objective 3.3 Increase building space available to academic programs and for research and support functions.

Strategy 3.3.1 Develop support and a funding model for the expansion of the KGS Well Sample and Core Facility to accommodate storage of critical materials.

Unit Goal 3 Metrics

By 2014 the Kentucky Geological Survey will demonstrate achievement of Goal 3 as indicated by the following metrics:

Metric 3-1. Report the number of degrees obtained and staff participation in continuing education.

Metric 3-2. Produce a working database of geotechnical data for use of UK Design and Construction.

Metric 3-3. Document activities to secure funding for expansion of core facility.

Unit Goal 4:

Promote Diversity and Inclusion

It is a straightforward and important fact of life that diversity is one of the strengths of American society. Participation in diverse families, workplaces, schools, and communities is the norm and not the exception. From such participation emanates a realization of both similar and distinct approaches to dealing with human situations and solving problems and a better understanding of human concerns and interactions. This better understanding leads to more sound decisions about ways to improve the quality of human engagement and what people do and experience. The University of Kentucky will prepare students for meaningful and responsible engagement within and across diverse communities. Through its own example and engagement, the University will improve the climate for diversity throughout Kentucky, a commitment given special importance and emphasis by shared history. The composite effect of work with students in classrooms, residence halls, offices, laboratories, clinics, libraries, and public places should enable them to develop a more enlightened worldview; attain a deeper understanding of and commitment to authentic democratic values and social justice; embrace a greater commitment to service and leadership for the common good; exhibit greater cultural knowledge and competence; and play a personal role in Kentucky's success in the global economy.

Embracing and nurturing diversity is the responsibility of every member of the University community. It must be clear and convincingly evident that diversity is an essential value that informs every area and aspect of the University community. A genuine commitment to diversity as a core value establishes and sustains an inclusive and celebratory view of diversity as a systemic influence on the conduct of students, faculty, and staff and as members of society. As such, the goal of diversity is inherent in all of the University's strategic goals.

The lack of diversity at the Kentucky Geological Survey, especially with respect to African Americans, reflects the low numbers of such individuals in the professional as a whole. This is a long term educational problem that KGS cannot directly address, because it is outside our mission. However, modifications to our normal outreach activities could make a contribution to increasing diversity in the future.

Objective 4.1 Increase awareness of earth sciences in schools with large minority populations

Strategy 4.1.1 Implement a program to develop instructional materials targeted at elementary and middle school classes with minority students.

Strategy 4.1.2 Conduct workshops with teachers to obtain feedback about use of the resources and to educate them about the use of the resources to address elements of core curricula.

Unit Goal 4 Metrics

By 2014 the Kentucky Geological Survey will demonstrate achievement of Goal 4 as indicated by the following metrics:

Metric 4-1. Meet with targeted teacher groups to identify needs and desirable formats for teaching materials.

Metric 4-2. Develop teaching aids to address specific core curricula.

Unit Goal 5:

Improve the Quality of Life of Kentuckians through Engagement, Outreach and Service

Outreach has been the historic hallmark of public universities, particularly those with dual roles as flagship and land-grant. The University of Kentucky fully and enthusiastically embraces its outreach responsibilities and its potential for improving lives across Kentucky. As an engaged 21st century postsecondary institution, the University is committed to sharing human, intellectual, and material resources with the larger community for the benefit of both.

The University will conduct outreach and engagement proactively, making the institution a strategic resource of the Commonwealth by strengthening communities; advancing schools; recruiting and creating businesses; fighting disease; and improving and enriching lives. The University will partner respectfully and responsively, ready always to combine community and University expertise in seeking practical solutions. While the primary ground for UK's engagement is Kentucky, the institution's involvement extends to the region, the nation, and the world.

Community engagement is central to the mission of the Kentucky Geological Survey. Staff members improve the lives of Kentucky citizens through direct contact, applied research, publications and maps about how geology affects their lives and the land they live on. KGS also works closely with many State agencies to help improve their service to the Commonwealth.

Objective 5.1 Enhance faculty and staff connection with community through engagement, outreach, and service.

Strategy 5.1.1 Develop new contacts with State agencies, institutions, and companies to promote collaborative use of KGS expertise and data to benefit Kentucky citizens

Objective 5.2 Enhance community access to University knowledge and expertise.

Strategy 5.2.1 Develop methods to shorten the transfer time of groundwater data from the Division of Water to the KGS public data repository

Strategy 5.2.2 Develop new Web services to disseminate KGS data and research results.

Strategy 5.2.3 Develop workshops to increase awareness and use of KGS research expertise and data.

Objective 5.3 Enhance external recognition and funding of University engagement, outreach, and service.

Strategy 5.3.1 Develop external grants to support community engagement work.

Strategy 5.3.1 Expand media representation of KGS engagement activities to provide balanced information about current issues in energy and the environment.

Unit Goal 5 Metrics

By 2014 the Kentucky Geological Survey will demonstrate achievement of Goal 5 as indicated by the following metrics:

Metric 5-1. Document community engagement contacts

Metric 5-2. Develop two new technology transfer workshops

Metric 5-3. Decrease turnaround of Division of Water data transfer to less than one week

Metric 5-4. Develop new Web-based data services