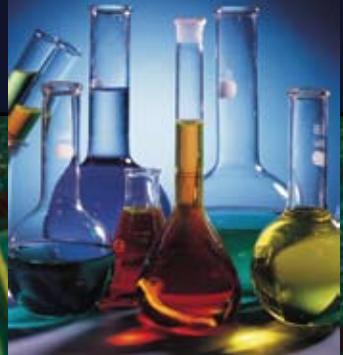


graduate studies

in the
**College of
Agriculture**



The land-grant mission is to serve all Kentuckians through scientific research, education, and outreach programs.



UK

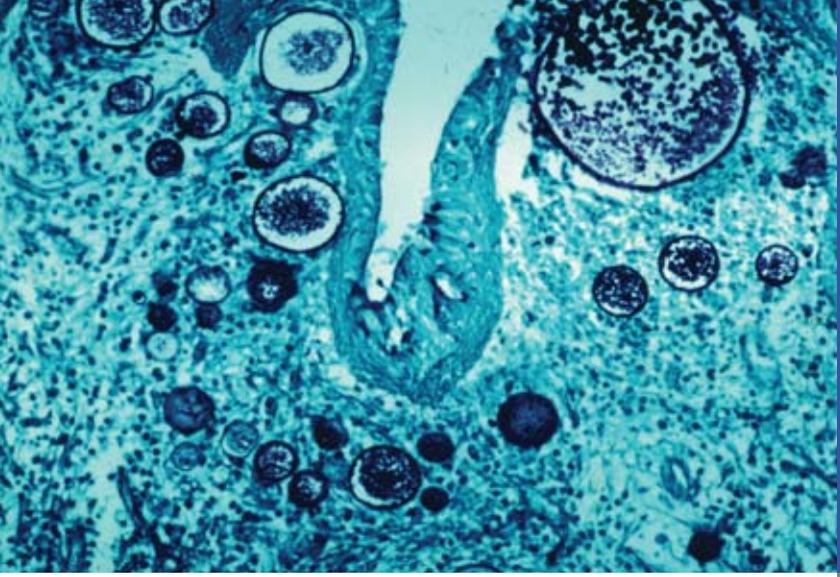
UNIVERSITY
OF KENTUCKY

College of Agriculture



graduate studies

The College of Agriculture offers both doctoral and master's degrees, with programs including many options that enable graduates to pursue a wide variety of careers.



Welcome to the University of Kentucky College of Agriculture.

Dear Prospective Graduate Student:

The College of Agriculture at the University of Kentucky has a long history as part of a land-grant institution. It has served the Commonwealth and beyond through high quality research, instruction, and outreach education since 1865.

The College of Agriculture is committed to attracting and supporting talented graduate students as they develop as researchers and scholars with the assistance of our first-rate faculty.

We provide a wide range of opportunities in graduate education through state-of-the-art laboratories on campus, outstanding research facilities that stretch from the far eastern portion of the state to its far western boundary, a partnership with the USDA for forage research, and through many other collaborations, including a joint dairy research facility with Eastern Kentucky University.

I welcome your interest in pursuing a graduate career at the UK College of Agriculture.

Sincerely,

Nancy M. Cox
*Associate Dean for Research
College of Agriculture*





academic departments

College of Agriculture
faculty and
administration place
the highest
priority on
excellence in
graduate education.
The low student-fac-
ulty ratio promotes
individualized
guidance and exten-
sive interaction.



Students acquire
both broad
training in their
discipline and
special expertise
in their area of
focus.

Agricultural Economics

Agricultural Economics covers the continuum from input supplier through the farmer to the final consumer. Faculty members and students in this program apply economic theory to solve problems in agribusiness, natural resources, rural economic development, marketing, trade, policy, risk, and agricultural management.

Animal and Food Sciences

Animal and Food Sciences uses a multidisciplinary approach to address research problems from the cellular level to production systems, aiming to enhance animal production efficiency, improve health and well-being, and provide consumers with a healthy, safe food supply. Disciplines include nutrition, microbiology, physiology, and food science.

Biosystems and Agricultural Engineering

This program applies engineering fundamentals and scientific principles to biological systems, such as natural resource conservation and environmental quality enhancement; mechanization of crop production systems; design and analysis of controlled environments; and manufacturing of food and biological products, such as enzymes and biofuels.

Community and Leadership Development

This multidisciplinary social science program integrates sociological, education, and communication theories and methods to understand the dynamics of community, organizational, and leadership development. Specific focus areas include career and technical education (agricultural education) as well as community and leadership development.

Entomology

Entomology is a distinct discipline within the biological and agricultural sciences that explores the economic and ecological effects of insects on agricultural, forest, and urban systems and the threat of insect-borne pathogens to human, animal, and plant health. Insects are also used as model systems to make fundamental discoveries in molecular biology and ecology.



Family Studies

Research in the Family Studies program focuses on social and economic issues of aging, parenting and fatherhood, ethics, marriage and remarriage, and divorce and post-divorce families. Faculty and students also conduct research on economic self-sufficiency and well-being of women and families, intergenerational transfers of wealth, social and health care policy, couple conflict and abuse, and policy issues affecting low-income families.

Forestry

Forestry seeks to deliver efficient and effective sustainable management of forests and related natural resources. A goal of the Forestry graduate program is to contribute to improved forest management through enhanced understanding of relevant ecological and social benefits and constraints. Examples of current research include soil, plant, and animal biology; ecosystem restoration; watershed function; landscape patterns; silvicultural and management issues; and taxation.



academic departments

The College provides excellent laboratory and field study facilities for graduate student research. Support from assistantships and fellowships, including stipends, full tuition scholarships, and student health insurance, is available on a competitive basis.





Graduate programs in the University of Kentucky College of Agriculture are closely tied to research endeavors. The graduate faculty includes many nationally and internationally recognized scientists, affording graduate students a wide range of research opportunities.

Horticulture

Horticulture science involves fundamental and applied studies related to nursery/landscape, flower, vegetable, fruit, and medicinal crops. Research is concentrated in cellular physiology, genetics, whole-plant physiology, controlled environments, plant and pest interactions, natural plant products, and sustainable production/marketing systems.

Merchandising, Apparel and Textiles

The graduate focus in Merchandising, Apparel, and Textiles is an option in the Interior Design, Merchandising, and Textiles program. The program emphasizes research and creative activities related to the economics, quality, and consumer aspects of merchandising, apparel, and textiles.

Nutrition and Food Science

The Nutrition and Food Science Department faculty research includes work in dietetics, consumer food patterns (perceptions and behaviors), community nutrition, healthy weight, medical nutrition therapy, food product development, hospitality marketing, hospitality and tourism information technology, and economic impact of the hospitality and tourism industry.

Plant and Soil Sciences

Plant and Soil Sciences research encompasses the chemistry, physics, and biology of both plant and soil systems. Research ranges from the molecular level to the whole plant and subsequently to the ecosystem level. Faculty members and students seek knowledge and technology to improve the efficiency of crop production while enhancing plant quality and yield within an environmental context.

Plant Pathology

Plant pathology is an integrative scientific discipline that ranges from the study of whole plants and their interactions with microbes (at the University of Kentucky, particularly viruses and fungi) to mechanisms of cellular dysfunction in the disease process. The aim is to maintain healthy plants that are key to sustainable agriculture and a secure food base. The biochemist, ecologist, geneticist, microbiologist and molecular biologist all find homes here.

Veterinary Science

Veterinary Science in the Maxwell H. Gluck Equine Research Center performs basic and applied research relevant to various health problems in the horse, with particular focus on infectious and musculoskeletal diseases, immunology, genetics, toxicology, and reproduction. Additional programs include a wide range of specialized diagnostic services provided by the Livestock Disease Diagnostic Center and genetic testing for horses provided by the Equine Blood Typing and Research Laboratory.





other programs



The School of Human Environmental Sciences offers opportunities to receive graduate degrees in the areas of Family Studies; Merchandising, Apparel and Textiles; and Nutrition and Food Science.



More than 200 graduate research assistants and 55 postdoctoral research associates work in laboratories and on Experiment Station farms and related sites throughout the state.

Center for Leadership Development

The Center for Leadership Development (CFLD) builds leadership capacity in Kentucky through research, education, and networks of leadership partners and services. Based in the Department of Community and Leadership Development, the center serves as a hub for research, training, and programs engaging youth, adults, and community-based organizations. As an example, the CFLD's Nonprofit Leadership Initiative provides quality programs and services that encourage nonprofit collaboration, effectiveness, accountability, and innovation to strengthen communities.

Division of Regulatory Services

The Division of Regulatory Services administers state laws pertaining to manufacturing, processing, labeling, and marketing of commercial feed, fertilizer, seed, and raw milk. The division works to assure the sale of consumer and agribusiness products in these categories that have content matching the stated percentages of ingredients on the label, assesses fees in order to continue monitoring, and inspects manufacturing mills.

Livestock Disease Diagnostic Center

The Livestock Disease Diagnostic Center is a full-service laboratory providing a comprehensive range of diagnostic services in support of Kentucky's veterinarians and livestock producers. Specialized diagnostic programs include: virology,

toxicology, serology/immunology, bacteriology, molecular biology, pathology, and clinical pathology. The center annually handles more than 65,000 case submissions.

The Graduate Center for Nutritional Sciences

The Graduate Center for Nutritional Sciences, funded in part by the Kentucky Agricultural Experiment Station, carries out research related to human nutrition. Research focuses on nutrition in relation to eating disorders, cardiovascular disease, cancer, nutrient-drug interactions, and alcohol.

The Tracy Farmer Center for the Environment

The mission of the Tracy Farmer Center for the Environment is to serve as the University's focal interdisciplinary center for integration of research, education, and public service that will advance understanding of environmental systems. The center also works to develop sustainable technologies and solutions to environmental problems and issues, and successfully transfer and disseminate technologies and solutions to all levels of government, private organizations, businesses and corporations, and individuals.

USDA Forage and Animal Production Research Unit

The USDA-Agricultural Research Service Forage-Animal Production Research Unit at the College of Agriculture serves the geographic transition zone between the Eastern and Midwestern United States, which is a major contributor to forage animal production in the United States. The unit was established at the University of Kentucky to improve productivity, profitability, competitiveness, and sustainability of forage-based enterprises within the zone. The mission is being accomplished through the use of multidisciplinary research teams that work to identify, evaluate, and manipulate genetic and physiological factors for the enhancement of the health of food animals and horses and their performance in forage-based enterprises and to improve the persistence, quality, and production of forage plants.

Kentucky Tobacco Research and Development Center

The Kentucky Tobacco Research and Development Center (KTRDC) conducts and supports unique research programs that examine new agricultural crop opportunities based on tobacco and other plants. The center's research projects explore the development and use of tobacco as a production system for plant-made pharmaceuticals and the discovery of new plant natural products with potential for commercialization. The KTRDC program emphasizes applications-oriented research designed to facilitate the development of new crop-based businesses and technologies for Kentucky agriculture.

research

Since its founding, the Kentucky Agricultural Experiment Station has been synonymous with bias-free research, both basic and applied. Research provides answers to issues in Kentucky and the world.





The history of cooperation between researchers and the food, agriculture, human environment, and natural resources industries dates back more than a century to the establishment of the Kentucky Agricultural Experiment Station at the University of Kentucky in 1885.

Research

The research program of the College of Agriculture enhances the economy, the environment, quality of life, and conservation of natural resources. Research encompasses more than 300 projects that involve the efforts of over 175 faculty members in 13 graduate-level academic departments.

Research is based on priorities developed at state, regional, and national levels. Researchers at the University of Kentucky share their work with counterparts at other land-grant universities as well as constituents in agribusiness, industry, commodity groups, and consumers.

Research Facilities

Fundamental research is conducted in many laboratories and greenhouses located across the Lexington campus. Research facilities are also located throughout Kentucky. They include several farms in Central Kentucky, the West Kentucky Research and Education Center at Princeton (Caldwell County), Eden Shale Farm (Owen County), Robinson Station (Breathitt County), and Robinson Forest (parts of Breathitt, Perry, and Knott counties).

Agricultural Information Center

The Agricultural Information Center (AIC) actively supports faculty and graduate research by providing electronic access to scientific research databases, including AGRICOLA, CAB Abstracts, Web of Science, Biological Abstracts, PubMed, and Cambridge Scientific Abstracts. The AIC is a service center of the campus library system, which has a collection that includes over 20,000 electronic journals, 75,000 e-books, and a substantial print collection. The majority of the databases and electronic journals are available off-campus via EZProxy. Library services include borrowing from non-UK libraries through Interlibrary Loan, current document delivery options, and technical assistance. In addition, the AIC staff offers classes, seminars, and individual consultations by request. Current print journals, a print reference collection, course reserves, and a computer lab are located on site.

more
information
www.ca.uky.edu/



To apply for admission
on the Web, please see
the University of
Kentucky Graduate
School Web site at

www.rgs.uky.edu/gs/

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Animal and Food Sciences

David Harmon 257-7516 dharmon@uky.edu

Biosystems and Agricultural Engineering

Dwayne Edwards 257-3000x109 dedwards@bae.uky.edu

Community and Leadership Development

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Nutrition and Food Science

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The University of Kentucky is committed to a policy of providing educational opportunities to all academically qualified students regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, marital status, age, veteran status, or physical or mental disability.