



KENTUCKY STATE
UNIVERSITY

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES (SANR)

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Today's world needs people prepared to solve global challenges related to a safe and reliable food supply, protection of natural resources, climate change, improved nutrition, public health, and alternative energy sources. The School of Agriculture and Natural Sciences (SANR) within the College of Agriculture, Health, and Natural Resources fulfills KSU's Land Grant Mission. **SANR offers a baccalaureate degree in Agriculture (BS) with six options/tracks:** *Agricultural Systems, Nutritional Science and Food Systems, Environmental Systems, Aquaculture Systems, Agriculture Business and Agriculture Communications*, **four Minors** (*Agriculture, Food and the Environment Minor, Aquaculture Minor, Geospatial Technology Minor and Health Sciences Minor*) and **Master of Science in Environmental Studies (MES)**. SANR prepares students for a variety of careers in a diverse industry through rigorous courses teachings with hands-on experiential learning approaches with opportunities to participate in a wide-ranging scholarship, apprenticeships, and grant funded projects available for qualified students.

The United States Department of Agriculture (USDA) and United States Department of Labor predict significant job growth in the areas of food, renewable energy, environment, and agribusiness. Increased demand is expected for agricultural inspectors, environmental scientists and specialists, including health, agriculturists and food scientists, soil and plant scientists, conservation scientists, forest and conservation technicians, agricultural and environmental law, public and agricultural policy, biotechnology, fisheries and wildlife, economic development, and agricultural communications. Using an interdisciplinary, teaching and hands-on, experiential instructional approach, students from diverse backgrounds will develop a broad understanding sustainable agriculture, natural resources, aquaculture, food and nutrition, and the environment. SANR's mission is to prepare graduates in these fast-growing areas of the U.S. agricultural economy.

Major/Track

- **Agricultural Systems** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/agricultural-systems/>): Students will be prepared for careers in the agriculture and natural sciences industries, developing skills in economics and marketing, soil science, entomology, organic agriculture, agriculture and energy, ornamental plants, and urban agriculture.

- **Nutritional Science and Food Systems** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/nutritional-science-and-systems/>): Students will be prepared for jobs facing important nutrition and wellness issues that society faces and will continue to manage as global food challenges rise.
- **Environmental Systems** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/environmental-systems/>): Students will understand our dependence and impacts on the natural world and how to ensure a sustainable future for us all.
- **Aquaculture Systems** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/aquaculture-systems/>): Students will be trained in the rearing of aquatic organisms under controlled or semi-controlled conditions preparing them to become successful aqua- culture researchers and producers.
- **Agriculture Business** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/agriculture-business/>): Students will be trained in various aspects of business and management necessary for success in any agriculture-related business.
- **Agriculture Communications** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment/agriculture-communications/>): Students will combine agriculture, journalism and public relations to become well-rounded professionals for careers in writing, advertising, public relations, web content management, photography, social media and video production, particularly in the agriculture industry.

Minors

- **Agriculture, Food and the Environment Minor** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-food-environment-minor/>)
- **Aquaculture Minor** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/aquaculture-minor/>)
- **Geospatial Technology Minor** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/geospatial-technology-minor/>)
- **Health Sciences Minor** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/health-sciences-minor/>)

Certificates

- **Agriculture Business Management Certificate** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/agriculture-business-management-certificate/>)
- **Animal Agriculture Certificate** (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/animal-agriculture-certificate/>)

resources/school-agriculture-natural-resources/animal-agriculture-certificate/)

- Aquaculture/Aquatic Sciences Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/aquaculture-aquatic-sciences-certificate/>)
- Environmental Measurements Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/environmental-measurements-certificate/>)
- Fermentation and Distillation Technology Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/fermentation-distillation-technology-certificate/>)
- Food Safety Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/food-safety-certificate/>)
- Geospatial Technology and Application Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/geospatial-technology-application-certificate/>)
- Human Health and Nutrition Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/human-health-nutrition-certificate/>)
- Sustainable Agriculture Systems Certificate (<https://kysu-public.courseleaf.com/undergraduate/college-agriculture-health-sciences-and-natural-resources/school-agriculture-natural-resources/sustainable-agriculture-systems-certificate/>)

Code	Title	Hours
AFE 115	Intro to Agri., Food, & Envi.	3
AFE 117	Global Perspect Ag/Food/Env	3
AFE 118	Intro to Ferm. & Distill. Sci.	3
AFE 120	Principles of Agronomy	4
AFE 130	Ferment. & Spirits Chem.	4
AQU 201	Fisheries & the Educ. Consumer	3
AFE 211	Introduction to Animal Science	3
AFE 212	Vet Clinical I	2
AFE 213	Animal Handling Practices Lab	1
AFE 215	Agribusiness Management	3
AFE 217	Plant Sci. & Horti. Principles	4
AFE 305	Intro. to Animal Dies & Mgmt.	3
AFE 306	Diagnosis Tech of Animal Dis.	3
AFE 307	Animal Nutrition	3
AFE 308	Pharmacology for Vet. Techs.	3
AFE 309	Livestock Reproduction	3
AFE 311	Practicum I	2
AFE 312	Vet Clinical II	3
AFE 318	Environmental Entomology	4
AFE 322	Livestock Anatomy & Physiology	3
AFE 334	Soil Science	3
AFE 340	Environmental Sci/Agroecology	3
AFE 359	Ferm. of Food & Food Safety	4
AFE 366	Climate Change Studies	3

AFE 401	AFE Seminar	1
AFE 404	Nutrition and Metabolism	3
AFE 405	Res/Extension in Nutrition	3
AFE 407	Agroforestry: Local/Global Pers	3
AFE 408	Anesthesiology & Surgical Proc	3
AFE 411	Practicum II	2
AFE 412	Vet Clinical III	3
AFE 415	Livestock Production Practices	3
AFE 416	Nutrition and Society	3
AFE 417	Modern Nutrition and Disease	3
AFE 425	Organic Crop & Livestock Prod	3
AFE 426	Agriculture Econ. and Market	3
AFE 435	Urban Agriculture	3
AFE 440	Ornamental / Landscape Plants	3
AFE 442	Plant Propagation/Crop Prod Sy	3
AFE 443	Apiculture/Pollination Biology	3
AFE 445	Agriculture and Energy	3
AFE 450	Human Health/Environment	3
AFE 455	Food Safety and Microbiology	3
AFE 459	Dir. Stud. in Ferm. & Dist. Sc	3
AFE 465	Food Systems	3
AFE 480	Intro to Geog Inform Syst	3
AFE 485	Special Topics	3
AFE 489	Remote Sensing of the Environ.	3
AFE 495	Special Topics	1-4
AFE 507	Agroforestry	3
AFE 525	Organic Agriculture	3
AFE 555	Food Safety and Microbiology	3