

k-state

study guide

kansas state university

Animal Sciences and Industry

Animal sciences and industry offers a program that prepares students for careers in the animal industry. The curriculum combines studies in nutrition, genetics, reproduction, behavior, physiology, business and technology with production, management and agribusiness skills.

The diversity and flexibility within the program allows students from both urban and agricultural backgrounds to plan programs of study consistent with individual interests and goals.

Some reasons to study animal science:

- The department is highly respected by other animal scientists.
- Animal science is progressive and technical. It prepares students for a variety of good jobs both in the livestock and companion animal industries.
- Program diversity allows students with broad interests to gain knowledge of many subjects, while specializing in one area.
- Quality of instruction in classrooms and laboratories is among the best the university offers.

The industry

The goal of the ever-changing animal science industry is to produce and develop safe, quality meat to meet consumer demand both home and abroad. The industry is also expanding in companion animal needs. It strives to make the lives of companion animals and their owners better through fulfilling, nutritional, pharmaceutical and behavior needs.

Careers

Career opportunities in animal sciences range from self-employment to jobs with large corporations. In the business world, positions include management, sales, product development, market reporting, personnel administration, regulation, and field service. Education positions include

county agent, research worker, and laboratory director. Communication businesses hire editors, field representatives, radio broadcasters, journalists, and public relations professionals.

Among others, K-State animal science graduates are employed by artificial insemination services, feed companies, banks, equipment suppliers, meat packers, food processors, dairy plants, feedlots, poultry breeders, equipment manufacturers, commercial hog operations, equine breeding and training ranches, breed associations, pet food companies, pharmaceutical companies, and pet and farm stores.

Faculty

Effective instruction is a constant goal of the Department of Animal Sciences and Industry. Several faculty members have received national and international recognition for their accomplishments in teaching and research.

Academic programs

Beef and dairy cattle, sheep, swine, horses, companion animals and poultry are studied, as are the products they use and produce.

You'll select one of the following options of study to complete a bachelor of science in agriculture degree:

Animal products

This option is designed for students seeking employment in the food industry. Course work includes food and meat processing; chemistry; microbiology; technology; and other related topics. The wholesomeness and safety of animal food products are stressed.

Business

The business option is for students interested in entering the broad field of agribusiness, whether it be in finance, management, personnel administration,

merchandising, or another area. This option uses many courses from the College of Business Administration and the Department of Agricultural Economics. A minor in business can be easily incorporated into this curriculum and is encouraged.

Communications

This option is for students interested in journalism, advertising, editing, or public relations. This option includes courses from the School of Journalism and Mass Communications such as news writing, editing and design, public relations writing, photography, and related topics.

Production/management

The production/management option is for the student who wants a sound education in the breeding, feeding, care, and welfare of animals. This option combines production, nutrition, and management courses, with courses from the College of Business Administration and the Department of Agricultural Economics to provide a solid basis for a career in animal management and production.

Science/pre-vet

Science/pre-vet serves three areas: students who pursue graduate work for an advanced degree, students who seek admission to a College of Veterinary Medicine, or students who intend to pursue a career in research. As the name of the option implies, courses in chemistry, physics, mathematics, and biology are emphasized.

Course selection

By understanding your background, interests, and goals, a faculty advisor helps chart the curriculum that best fulfills your needs. All students take core courses, including written communications, public speaking, basic math, economics, chemistry, biology, nutrition, accounting, electives in the social sciences and the introductory animal science courses.

In addition to the required courses, 15 to 25 hours of free electives will help you satisfy personal interests, regardless of the option of study you choose.

Undergraduate courses

Hrs.

3	Principles of Animal Science
1	Animal Sciences and Industry
1	Dairy Poultry Science
3	History and Attitudes of Animal Use
3	Companion Animal Management
2	Poultry Product Evaluation
3	Livestock and Meat Evaluation
3	Fundamentals of Nutrition
3	Principles of Feeding
2	Conformation and Performance
	Appraisal of Horses
3	Advanced Horse Evaluation
2	The Horse as a Window to the World
2	Beginning Horse Training and Management
3	Meat Science
2	Processed Meat Operations
2	Principles of Meat Evaluation
1	Wool Grading and Evaluation
2	Meat Grading, Specifications, and Evaluation
2	Dairy Cattle Judging
1	ASI Quadrathlon
4	Farm Animal Reproduction
3	Fundamentals of Milk Processing
1	Advanced Dairy Cattle Judging
1	Livestock Sales Management
3	Food Products Evaluation
2	Advanced Horse Training and Management
2	Principle of Livestock Selection
2	Form and Function in Livestock
3	Microcomputer Applications in Animal Sciences and Industry
3	Genetics
2	Equine Reproduction Management
3	Animal Breeding Principles
2	Bovine Reproductive Technologies
3	Beef Science
3	Horse Science
3	Sheep Science
4	Anatomy and Physiology
3	Swine Science
3	Contemporary Issues in Animal Science and Agriculture
1-6	Animal Science Internship
3	Physiology of Lactation
3	Dairy Foods Processing and Technology
2	Dairy Cattle Nutrition
2	Processed Meat Operations
2	Livestock Production and Management
3	Dairy Cattle Management
3	Poultry Products Technology
3	Poultry Management
3	Behavior of Domestic Animals
3	Animal Growth and Development
1-9	Problems in Animal Sciences and Industry
2	Meat Fabrication
2	Meat Selection and Utilization
1	Monogastric Nutrition
1	Avian Nutrition
1	Equine Nutrition
1	Swine Nutrition
1	Ruminant Nutrition
1	Dairy Cattle Nutrition
1	Formulation of Livestock and Poultry Diets
1	Grazing Livestock Nutrition
1	Nutrition of Feedlot Cattle
1	Silage Technology
1	Principles of HACCP

Extracurricular activities

In addition to knowledge gained in the classroom, students learn from contact with other students, faculty, and industry personnel and from hands-on experience with animals and animal-products.

To assist you in learning outside the classroom, the department sponsors seven judging teams that compete in 20 to 25 national contests each year. These teams are livestock, meat, wool, horse, dairy, dairy products, and poultry. Participation in the class from which these teams are chosen improves your ability to reason analytically, to arrive at logical conclusions, and to defend the decision in either an oral or written fashion.

Six student clubs are sponsored by the department. Students participating in these clubs benefit from lasting friendships established with other members and the opportunity to expand leadership potential, and an increased understanding of the field that the club represents.

Employers are usually interested in extracurricular activities in which the prospective employee has had a role as an undergraduate. Judging teams and departmental club membership are effective means for greater personal development.

Minor

Students may choose to increase their knowledge and marketability with a minor in animal sciences and industry. Scheduling the 15 hours to complete a minor is easy with careful planning.

Equine science certificate

This program is designed to increase job opportunities in the equine industry to those students whose curricula does not include equine related courses. The program also is designed for pre-vet students wanting to increase equine knowledge and experience and for students who are horse owners, who want to further their knowledge in equine science for personal enrichment.

The program requires the completion of 20 semester hours of Equine Science related courses approved by the department. Students may choose to complete the program concurrent with pursuit of a degree in any of the eight colleges at K-State or some may elect to concentrate on only the certificate program.

Financial assistance

Several scholarships are available to animal science majors who need financial assistance. Part-time work is frequently available in the department's livestock units and laboratories and in Manhattan and the surrounding area. Study-related paid work offers rewarding and valuable experience while helping financially support the serious student.

High school preparation

Animal science majors should have a good background in biology, English, math, science, and chemistry.

For more information about animal sciences and industry, contact:

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For more information about Kansas State University, contact:

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1-800-432-8270 (toll free) or
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K-State Notice of Nondiscrimination

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