

Animal Sciences

Animal science is the study of the basic principles of science and their application to the biological, economic, and environmental aspects of livestock and poultry production, companion and recreational animals, and the processing of animal products. Students will receive a firm foundation in the basic science disciplines, which include population and molecular genetics, nutrition, physiology (lactational, reproductive, and growth), biotechnology, and meat science.

In addition to learning the basic principles of science, the major also requires a broad understanding of the factors that affect livestock operations, the allied industries serving animal agriculture, and animal product processing plants. Among these factors are economics, including finance, marketing, and personnel management; soil and crop science; agricultural engineering; and environmental concerns.

Pursuing Animal Sciences at Ohio State

Students should complete the college preparatory high school curriculum with a minimum of four units of English, three units of college preparatory mathematics, two units of social sciences, two units of natural sciences, two units of foreign language, and one unit of visual and performing arts. Additional units of science and mathematics are encouraged.

Students admitted to the College of Food, Agricultural, and Environmental Sciences are qualified to enroll in the animal sciences major. Admission to the University is on a competitive admission process. The primary criteria for admission are the applicant's high school college preparatory program, performance in that program and performance on the ACT or SAT. In addition, consideration is given to those applicants who provide cultural, racial, economic, and geographic diversity to the university, as well as those who possess outstanding particular talents.

Students admitted to the university and interested in animal sciences will be directly enrolled in the College of Food, Agricultural, and Environmental Sciences as an Animal Sciences major.

Animal Sciences Requirements

In addition to the University's General Education Requirements in the foundations, natural science, social science, arts and humanities, international experience, and contemporary issues, students in the animal sciences major must complete FAES 100, 55 to 65 credit hours in the major, 20 to 25 credit hours in a minor, and sufficient electives to make a total of 183 hours of credit for graduation.

Students in the major are required to take a core of courses and a minimum of 55 credit hours. The required courses include: Introductory Animal Sciences, Food Animal Products, Principles of Animal Systems Physiology, Principles of Genetic Improvement, Principles of Animal Nutrition, a data analysis course, a production and management course, and a capstone course in the major. In addition, a student must complete an internship of at least 200 work hours and a third writing course, which is part of the capstone in the major. Beyond these required courses, students work with their advisors to select a series of elective courses that will best prepare them for their career goals.

The student is also expected to select a minor, which encompasses 20 to 25 credit hours. The minor should be a series of courses that provides breadth to education in agriculture or is complementary to the major.

Nutrition Option

Animal Sciences majors interested in the absorption, metabolism, and functions of nutrients may elect to pursue a Bachelor of Science in Nutrition, an interdisciplinary program involving the Departments of Animal Sciences, Food Science and Technology, and Human Nutrition. Students will select from a core of courses including Principles of Animal Nutrition, Advanced Animal Nutrition, Carbohydrate and Lipid Metabolism, and Principles of Nutrient Metabolism or Vitamin and Mineral Metabolism, as they discover how dietary compounds impact the whole body as a consequence of their actions at the cellular and molecular level.

Veterinary Technology Option

This option allows students to earn a Bachelor of Science degree in Agriculture and the Associate of Applied Science degree in Veterinary Technology at Columbus State Community College (CSCC) in fourteen quarters.

Students can obtain the certification or licensure by the State Board of Veterinary Medical Examiners as a veterinary technician. In addition to the typical careers available to Animal Sciences majors, students may also pursue careers in the field of veterinary medicine such as veterinary technician, animal behavior counselor, biomedical research technologist, laboratory animal manager, veterinary instructor, health technologist, specialty practice technician, and clinic or hospital team leaders and/or staff supervisors.

Interested students must apply to CSCC prior to February 1 of the sophomore year. Students will complete their first two years at Ohio State and the third and fourth years are split between Ohio

For more information, check these web sites:

Animal Sciences: ansci.osu.edu

College of Food, Agricultural, and Environmental Sciences:
cfaes.osu.edu

Ohio State: osu.edu

Admissions: undergrad.osu.edu

Multicultural Center: multiculturalcenter.osu.edu

Curriculum Sample

This is a sample list of classes a student will take to pursue a degree in Animal Sciences. Since university students need more than a specific education in a narrow field, they also will take classes to complete the General Education Curriculum (GEC). The GEC will allow students to develop the fundamental skills essential to collegiate success across major programs. Course work options satisfying the GEC often come from a variety of academic areas of study allowing students to tailor their GEC toward their interests.

Note: This sample represents one of several possible paths to a degree in Animal Sciences. Consult the departmental web site, ansci.osu.edu, for details.

Freshman Year:

Agriculture Survey	1
GEC(biology)	10
GEC (chemistry)	10
GEC (mathematics)	4
Introductory Animal Sciences	5
Food Animal Products	3
GEC (English composition)	5
GEC (social sciences)	5
Total hours	45

Sophomore Year:

Animal Systems Physiology	5
Principles of Genetic Improvement	5
Principles of Animal Nutrition	5
Course in minor	5
Data Analysis	5
GEC (Microeconomics)	5
Professional support course	5
GEC (second writing course)	5
GEC (history)	5
Physics	5
Total hours	50

Junior Year:

Courses in minor	8
Courses in major	10
Oral Expression	5
GEC (arts and literature)	10
GEC (social sciences)	5
Electives	6
Total hours	43

Senior Year:

Internship	3
Course in minor	7
Production and management course in major	5
GEC (contemporary issues)	5
GEC (capstone in the major)	5
Course in major	3
Electives	19
Total hours	47

State and CSCC. Summer course work is required during the third and fourth years of the program. Students also complete four 150-hour internships—one at Ohio State's Veterinary Teaching Hospital and three at private clinical practices, research centers, emergency/specialty hospitals, diagnostic laboratories or zoos.

Honors & Scholars Programs

Incoming first year students in the top 10% of their high school graduating class with an ACT composite of 30 or higher or combined SAT Critical Reading and Math scores of 1340 or higher are offered admission to the University Honors program. The honors program is designed to challenge superior ability students. It is based on the concepts of flexibility in course selection, accelerated or advanced classes, and an honors research or scholarly project. Course flexibility enables the honors student to achieve breadth and depth in the academic program and to define academic growth in a more personal way. Honors program students are given priority scheduling. Students completing honors courses have these designated on their transcripts with an "H" before the course, and those who complete the honors program satisfactorily, meeting all requirements, will graduate "with distinction" in their area of specialization. Enrolled students may also apply to the Honors program by submitting an Individualized Honors Curriculum after earning at least a 3.5 CPHR on 30 hours at Ohio State. Student must also maintain at least a 3.5 CPHR to remain in honors.

Co-Curricular Opportunities

Students receive "hands on" experience through course work in animal facilities, research laboratories, internship programs, Australia Study Abroad Program, General Livestock Selection and Evaluation Team, Dairy Cattle Selection and Evaluation Team, Poultry Selection and Evaluation Team, Equine Selection and Evaluation Team, Meat Evaluation Team, and Academic Quadrathlon.

Career Prospects in Animal Sciences

Students may prepare themselves for a variety of careers in science, business, and production agriculture. For example, graduates find employment in research laboratories, biotechnical industries, chemical/pharmaceutical companies, genetics and nutrition companies, allied industry associations, government agencies, and in meat science/food processing organizations.

Many students continue their education for a professional or graduate degree. Veterinary medicine and graduate studies in the animal sciences are the two most common pursuits for further education, but students can continue their study in law, human medicine, dentistry, pharmacy, physical therapy, nursing, and optometry.

Beginning annual salaries for recent graduates average \$30,000 annually. Salaries are determined by the candidate's skills and the responsibilities of the job.

Revised October 2008. For the most up-to-date information on the animal science program, please visit ansci.osu.edu.

Contact information:

Mariette Benage | Student Success Coordinator | Animal Sciences
116 Plumb Hall | 2027 Coffey Road | Columbus, Ohio 43210-1094
(614) 292-7156 | benage.1@osu.edu