

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, behavior, management and welfare.

Within the major, students have the opportunity to specialize in the following areas: animal biosciences (a pre-vet track), animal industries, veterinary technology and nutrition. The Department of Animal Sciences provides many opportunities for students to participate in hands-on learning through the use of our animals, field trips, laboratory and field research, animal-related study abroad experiences, and internships.

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.

All freshman applicants are considered within a competitive admission process for the Columbus campus; find admissions criteria at go.osu.edu/admissions.

Admitted students who indicate animal sciences as a major on their applications are directly enrolled into the College of Food, Agricultural and Environmental Sciences.

Animal Sciences Requirements

In addition to the university's General Education requirements in biological and physical science, social science, data analysis, math, writing, communications, arts and humanities, history, international issues, and contemporary issues, students in the animal sciences major must complete FAES 1100, 39 to 40 credit hours in the major, 12 to 15 credit hours in a minor (selected at the end of the sophomore year), 2 credits (200 hours) of internship experience, and sufficient electives to make a total of 121 hours of credit for graduation.

Students in the major are required to take a core of courses that include Appreciation of Companion and Production Animals, Introduction to Animal Sciences (with subsequent laboratory), Nutrition, Genetics, Reproduction, Health, Immunology, Applied Animal Bioscience Laboratory, a production and management course, a second production course that could include study

abroad and/or industry experience, and an internship. Beyond these required courses, students work with their advisors to select a series of elective courses (10 to 11 credits) that will best prepare them for their career goals.

Nutrition Option

Students majoring in animal sciences who are 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 and Human Nutrition. This degree includes all courses required for students interested in applying to veterinary, medical, pharmacy, dental and optometry schools. Students will select from a core of courses including Nutrition, Principles of Animal Systems Physiology, Applied Animal Research Methods Laboratory, Ruminant Nutrition, Nonruminant Nutrition, Nutritional Immunology, Comparative Nutrient Metabolism, and 9 elective hours within advanced nutrition and metabolism between Animal Science and Human Nutrition.

Veterinary Technology Option

This option allows students to earn a Bachelor of Science degree in Agriculture from The Ohio State University and an Associate of Applied Science degree in Veterinary Technology from Columbus State Community College (CSCC) in a four year period of time.

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.

Students will complete their first year at Ohio State and the second, third and fourth years are split between Ohio State and CSCC. Summer course work is required during the second year of the program. Students will complete four clinical experiences—one at Ohio State's Veterinary Teaching Hospital and three at private clinical practices, research centers, emergency/specialty hospitals, diagnostic laboratories or zoos. Interested students must attend a mandatory information session at Ohio State in October of their freshman year to be considered for the program.

For more information, check these websites:

Animal Sciences: ansci.osu.edu

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

Ohio State: osu.edu

Admissions: undergrad.osu.edu

First Year Experience: fye.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 specific education in a narrow field, they also will take classes to complete General Education (GE) requirements. Because GE courses come from a variety of academic areas of study, this course work helps students develop fundamental skills essential to collegiate success and allows them to tailor these courses toward their interests. Note: This sample represents one of several possible paths to a degree in Animal Sciences. Consult the departmental website, ansci.osu.edu, for details.

Freshman Year:

CFAES Freshman Experience	1
GE courses	22
Introductory Animal Sciences & Lab	4
Appreciation of Animals	3
Total hours	30

Sophomore Year:

Nutrition	3
Physiology	3
Genetics	3
Reproduction	2
Applied Animal Bioscience Lab	2
Economics	3
Data Analysis	3
Communications	3
GE courses	6–8
Elective	3
Total hours	31–33

Junior Year:

Health	2
Immunology	2
Animal Science Production (1)	3
GE courses	9
Minor courses	9
Electives	7–9
Total hours	32–34

Senior Year:

Contemporary Issues	3
Animal Science Production (2)	3
Internship	3
Minor courses	6
Electives	9–12
Total hours	24–27

Honors & Scholars Programs

The Ohio State Scholars Program and the University Honors Program are designed to challenge superior ability students and is based on the concepts of flexibility in course selection, accelerated or advanced classes, and honors research or scholarly project. Honors Program students are allowed priority scheduling opportunities. Honors and Scholars students have strong academic records, sustained extra-curricular and work experiences, and demonstrated leadership abilities.

The Honors and Scholars Programs represent great opportunities to be part of a smaller community within a large university. For more information about these opportunities, visit honors-scholars.osu.edu.

Co-Curricular Opportunities

More than 35 percent of students enrolled in the program participate in the departmental study abroad experiences to Australia, Brazil, Chile, Costa Rica, Europe, Ireland, Netherlands and New Zealand. Each trip is faculty-led with opportunities to receive academic credit. Students may also choose to participate in research internships with opportunities to present their research both locally and nationally.

In addition to studying abroad and completing research and internship experiences, students can gain valuable critical thinking and communication skills through the Dairy Cattle, Equine, Livestock, Meat and/or Poultry Selection and Evaluation Teams, as well as the Animal Science Academic Quadrathlon.

Career Prospects in Animal Sciences

Students may prepare themselves for a variety of careers in science, business, or even communications and education. 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 \$38,000 annually. However, most graduates will have the potential to earn \$60,000 within five years of experience.

Revised August 2012. Information subject to change. For the most up-to-date information on the animal science program, please visit ansci.osu.edu.

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