APPLIED ANIMAL SCIENCE (A.A.S.)

https://colsa.unh.edu/thompson-school-applied-science/program/aas/applied-animal-science

Description

The demand for and production of meat, milk and fiber from animals is expected to continue to grow for decades to come. Students interested in working in the highly technical, rapidly changing field of farm animal production and management, must become well versed in the many species of farm animals, including breeding, feeding, health care, housing and marketing. In the animal agriculture concentration, students apply many of the skills learned in the classroom on farms in the first few semesters of the program. Students learn to work safely with farm livestock and/or poultry. They visit farms and engage in hands-on activities with their instructors. Students will learn to balance rations, identify and treat diseases. They will design appropriate buildings, fences, and learn how to properly care for the land and environment necessary to support farm animals. Students visit and interact with nearby farms with sheep, goats, swine as well as dairy and beef cattle.

Students are encouraged to embrace opportunities to work and study at the University's farms. UNH maintains two modern and well-equipped dairy teaching and research centers, and as an option students interested in dairy cattle can also collaborate to manage the CREAM (Cooperative for Real Education in Agriculture) herd. All students will also study at the UNH Organic Dairy Research Farm. Students will have the chance to also work with horses, sheep, and poultry on campus.

Students learn the business of farming through field exercises in land management, forage production, financial management, and computer use on a farm as well as through continued practical experience with farm livestock, poultry and dairy cattle. The program prepares students to work both on the farm and in related businesses.

The Thompson School's Animal Agriculture program is in a unique position with the baccalaureate animal science major. Students may start with the Thompson School program, obtain their associate in applied science (A.A.S.) degree then transfer to a four-year major. There they would obtain a B.S. with two additional academic years of full-time study. This allows students to receive two degrees in as little as four years or obtain their A.A.S. degree and work in the field to later return for a B.S. Students wishing to follow this course of action need to work closely with their adviser and maintain a grade of C or better in key applied animal science courses.

Career Opportunities

Herd or flock manager, agricultural sales and/or service employee, farm manager, artificial insemination (AI) technician, crop manager, farm owner, or animal care or training professional.

Admissions Requirements

Applicants to the applied animal science program area must present four years of college preparatory English and at least two years, preferably three years of satisfactory work in college preparatory science (one of the sciences being biology, with a lab). One year of laboratory college preparatory chemistry is highly recommended. Also required are three years of social science, and three years of college preparatory mathematics.

Requirements

Degree Requirements

Minimum Credit Requirement: 64 credits

Minimum Residency Requirement: 16 credits must be taken at UNH

Minimum GPA: 2.0 required for conferral*

Core Curriculum Required: Discovery Program

Major, Option, and Elective Requirements as indicated.
**Major GPA requirements as indicated.*

Applied Animal Science Major Requirements

Applied Animal Science (AAS) students must maintain a minimum 2.0 cumulative grade-point average. Students with averages lower than 2.0 must repeat classes with lower grades and raise their average to the required 2.0 before taking additional classes. Students must have a minimum cumulative 2.0 grade-point average in AAS classes to qualify for graduation from the program.

All Applied Animal Science students are required to take:

Code	Title	Credits
AAS 423	Dairy Selection	2
AAS 428	Anatomy and Physiology of Domestic Animals	4
AAS 432	Introduction to Forage and Grassland Management	3
AAS 434	Equipment and Facilities Management	3
AAS 597	Applied Animal Science Work Experience	0
ADMN 400	Introduction to Business	4
ANSC 406	Careers in Animal Science	1
ANSC 421	Introduction to Animal Science	4
ANSC 543	Technical Writing in Animal Sciences	2
ANSC 548	Agricultural Business Management	4
ANSC 698	Cooperative for Real Education in Agricultural Management (CREAM) [1]	4
or ANSC 603	Introduction to Livestock Management	
or ANSC 605	Poultry Production and Health Management	
or ANSC 427	Introduction to Equine Science	
ENGL 401	First-Year Writing	4
PAUL 450	Personal Finance (or other Quantitative Reasoning Discovery)	4
VTEC 435	Animal Health and Laboratory Diagnostics	4
Discovery Social Science		4
Discovery Course		4
Electives [2]		13
Total Credits		**64**

20 credits of Discovery courses are required, including Writing Skills (ENGL 401 First-Year Writing), Biological Science (VTEC 435 Animal Health and Laboratory Diagnostics), Quantitative Reasoning (PAUL 450 Personal Finance or other), Social Science, and Discovery elective.

[1] Students that wish to take ANSC 698 Cooperative for Real Education in Agricultural Management (CREAM) must take AAS 425 Introduction to Dairy Herd Management in their first semester. CREAM is a two semester course (fall/spring).

[2] Students without large animal experience are encouraged to enroll in AAS 421 Large Animal Behavior and Handling Techniques, as an elective.

Degree Plan

Sample Degree Plan

This sample degree plan serves as a general guide; students collaborate with their academic advisor to develop a personalized degree plan to meet their academic goals and program requirements.

First Year		
Fall		**Credits**
AAS 428	Anatomy and Physiology of Domestic Animals	4
ANSC 421	Introduction to Animal Science	4
ENGL 401	First-Year Writing (DISC)	4
Discovery or AAS 425 [1]		4
	Credits	**16**
Spring		
AAS 423	Dairy Selection	2
AAS 434	Equipment and Facilities Management	3
ADMN 400	Introduction to Business	4
VTEC 435	Animal Health and Laboratory Diagnostics	4
Discovery Course - Social Science		4
	Credits	**17**
Second Year		
Fall		
AAS 432	Introduction to Forage and Grassland Management	3
AAS 597	Applied Animal Science Work Experience	0
ANSC 427 or ANSC 605 or ANSC 698	Introduction to Equine Science or Poultry Production and Health Management or Cooperative for Real Education in Agricultural Management (CREAM)	4
Discovery Course: Quantitative Reasoning, PAUL 450 or other		4
Discovery		4
Elective		2
	Credits	**17**
Spring		
ANSC 406	Careers in Animal Science	1
ANSC 543	Technical Writing in Animal Sciences	2
ANSC 548	Agricultural Business Management	4
ANSC 698 or ANSC 603	Cooperative for Real Education in Agricultural Management (CREAM) or Introduction to Livestock Management	4
Elective or Discovery if AAS 425 was taken Freshman year [1]		3
	Credits	**14**
	Total Credits	**64**

[1] CREAM must be taken both fall and spring semesters

[2] 20 credits of Discovery required; including ENGL 401 First-Year Writing, VTEC 435 Animal Health and Laboratory Diagnostics, a Quantitative Reasoning course, a Social Sciences course, and 1 other Discovery course

Student Learning Outcomes

Program Learning Outcomes

- Students will be able to describe the significance and unique characteristics of animal agriculture in New England, including species and breeds most appropriate for various agricultural enterprises.
- Students will demonstrate they can handle and restrain a variety of domestic animals for routine care, health management practices and training purposes.
- Students will be able to identify and describe the significant anatomical parts of and differences between horses, cattle, small ruminants and poultry.
- Students will understand the basis of disease, major pathogens causing disease, the techniques used in identifying parasites and pathogens, as well as keeping animals healthy through biosecurity measures.
- Students will gain an applied understanding of animal nutrition, animal selection and breeding and animal health practices through experiential coursework with dairy cattle, livestock and/or poultry.
- Students will be able to articulate the career opportunities available in the field of Animal Science.
- Students will be able to identify appropriate land, farm management strategies and forage crops in New England for farm animal feeding in the form of hay, silage and pasture.
- Students will demonstrate written and oral communication skills necessary for marketing animal products and services, information transfer, and animal related business development and promotion.
- Finally, students will demonstrate through the development of an animal related business plan that they understand the importance of market analysis, product promotion, sales techniques, labor management, financial statements, insurance and labor management.