

Department of Animal and Dairy Sciences

Major Advisor: Instructor Jessica Graves

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The Animal and Dairy Sciences Curriculum is designed to give students essential instruction and practical experience in the science and business of animal agriculture. Courses provide training in the areas of breeding, nutrition, growth and development, reproductive and lactational physiology, marketing, management, evaluation, muscle foods and dairy products processing as related to livestock species. Students may pursue one of several concentrations such as: Science/Veterinary Science, Equine Science and Production, Meat Animal Science and Production, or Dairy Science and Production. Students pursuing admission to the College of Veterinary Medicine or the Graduate School should choose the Science/Veterinary Science concentration. The Science/Veterinary Science concentration allows students to take support courses in the sciences that will prepare the veterinary and graduate student for the professional programs in the CVM or Graduate School. Students interested in a career in animal production/management should choose Equine Science and Production, Meat Animal Science and Production, or Dairy Science and Production.

The department's Bearden Dairy Research Center and the animal research units in the Leveck Animal Research Center provide students contact with modern techniques and practical experience to give insight to the technical problems associated with the animal and dairy industries.

General Education Requirements

English Composition

EN 1103	English Composition I	3
or EN 1163	Accelerated Composition I	
EN 1113	English Composition II	3
or EN 1173	Accelerated Composition II	

Mathematics

MA 1323	Trigonometry	3
MA 2113	Introduction to Statistics	3

Science

See Major Core		9
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Humanities

Choose from General Education courses		6
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Fine Arts

Choose from General Education courses		3
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Social Sciences

Choose from General Education courses		6
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Major Core

Chemistry Sequence

Choose one of the following: 7-8

CH 1043	Survey of Chemistry I
& CH 1053	and Survey of Chemistry II
& CH 1051	and Experimental Chemistry

CH 1211	Investigations in Chemistry I
& CH 1213	and Chemistry I
& CH 1221	and Investigations in Chemistry II
& CH 1223	and Chemistry II

Organic Chemistry & Lab

Choose one of the following: 4

CH 2503	Elementary Organic Chemistry
& CH 2501	and Elementary Organic Chemistry Laboratory
CH 4513	Organic Chemistry I
& CH 4511	and Organic Chemistry Laboratory I

Biochemistry

Choose one of the following: 3

BCH 4013	Principles of Biochemistry
BCH 4603	General Biochemistry

Biology

BIO 3304	General Microbiology	4
BIO 1134	Biology I	4
BIO 1144	Biology II	4

Animal & Dairy Science

ADS 1114	Animal Science	4
ADS 4115	Animal Nutrition	5
ADS 4123	Animal Breeding	3
ADS 4613	Physiology of Reproduction	3
ADS 4611	Practices in Physiology of Reproduction	1
ADS 4423	Animal and Dairy Sciences Internship	3
or ADS 3312	Livestock Management Practices	
ADS 4221	Animal and Dairy Sciences Senior Seminar	1
PO /GNS /BIO 3103	Genetics I	3

Computer Literacy

Satisfied by ADS 1114, ADS 4123, and either ADS 3312 or ADS 4423

Choose one of the following concentrations: 26-31

Meat Animal Science & Production (MASP) (26-29 hours)

ADS 3213	Livestock Growth, Development and Evaluation
ADS 3314	Introduction to Meat Science
PSS 4103	Forage and Pasture Crops
ADS 4113	Swine Science
ADS 4213	Livestock Nutrient Requirements and Formulation of Rations
ADS 4324	Beef Cattle Production
ADS 4412	Managing Livestock Sales I

1 Production Elective¹

1 Evaluation Elective²

Business electives³

Approved courses listed below⁴

Free electives

Free electives

Writing Requirement

Satisfied by successful completion of ADS 3213, ADS 4213, ADS 4613, and one of: ADS 3223, ADS 4324 or ADS 4814

Oral Communication Requirement

Satisfied by successful completion of ADS 3213 and two of: ADS 2102, ADS 2122, ADS 4212, ADS 4221 or ADS 4232

Dairy Science & Production (DSPD) (29-31 hours)

PSS 4103	Forage and Pasture Crops
FNH 4164	Quality Assurance of Food Products
ADS 3812	Dairy Cattle Appraisal
ADS 4213	Livestock Nutrient Requirements and Formulation of Rations
ADS 4412	Managing Livestock Sales I
ADS 4623	Physiology of Lactation
ADS 4814	Dairy Farm Management

2 Production Electives ¹

1 Evaluation Elective ²

Business electives ³

Approved courses listed below ⁴

Free electives

Free electives

Writing Requirement

Satisfied by successful completion of ADS 4213, ADS 4613, and ADS 4814

Oral Communication Requirement

Satisfied by successful completion of two: ADS 2102, ADS 2122, ADS 3213, ADS 4212, ADS 4221, or ADS 4232

Equine Science & Production (ESPD) (28-31 hours)

ADS 2102	Equine Conformation and Performance Evaluation
ADS 3223	Horse Management
ADS 3314	Introduction to Meat Science
or FNH 4164	Quality Assurance of Food Products
ADS 4213	Livestock Nutrient Requirements and Formulation of Rations
ADS 4412	Managing Livestock Sales I
PSS 4103	Forage and Pasture Crops
ADS 4333	Equine Exercise Physiology

Horsemanship Elective:

Choose one of the following: 2-3

ADS 1132	Introduction to Horsemanship
ADS 2212	Equine Behavior and Training
ADS 2312	Advanced Horsemanship
ADS 3233	Equine Assisted Therapy

2 Production Electives ¹

1 Evaluation Elective ²

Business electives ³

Approved courses listed below ⁴

Free electives

Free electives

Writing Requirement

Satisfied by successful completion of ADS 4213, ADS 4613, and ADS 3223

Oral Communication Requirement

Satisfied by successful completion of ADS 2102 and one of: ADS 2122, ADS 3213, ADS 4212, ADS 4221, or ADS 4232

Total hours

124

- 1 Production Electives: ADS 3223 Horse Management; ADS 4113 Swine Science; ADS 4222 Small Ruminant and Diversified Livestock Production; ADS 4324 Beef Cattle Production; ADS 4814 Dairy Farm Management; PO 4333 Broiler Production
- 2 Evaluation Electives: ADS 2102 Equine Conformation and Performance Evaluation, ADS 2122 Advanced Equine Evaluation, ADS 3142 Meats Judging I, ADS 3213 Livestock Growth, Development and Evaluation, ADS 3812 Dairy Cattle Appraisal, ADS 4212 Livestock Evaluation, ADS 4232 Advanced Livestock Evaluation, FNH 2112 Food Products Evaluation.
- 3 These courses also count towards a Minor in Agribusiness.
- 4 Choose from: AEC 2713, AEC 3133, AEC 3213, AEC 3233, AEC 3413, AEC 4123, ACC 2013, EC 2113, EC 2123 OR MGT 3114.

Science/Veterinary Science (SVTS)

ADS 3314	Introduction to Meat Science	4
BIO 4413	Immunology	3
VS 3014	Anatomy and Physiology	4
PH 1113	General Physics I	3
ADS 4623	Physiology of Lactation	3
2 Production Electives ¹		5-8
1 Evaluation Elective ²		2-3
Science Electives - choose two courses ³		
Free electives		
Free electives		4-12
Writing Requirement		
ADS 4613	Physiology of Reproduction	3
ADS 4623	Physiology of Lactation	3
Choose one of the following:		6-8
ADS 3213	Livestock Growth, Development and Evaluation	
ADS 3223	Horse Management	
ADS 4324	Beef Cattle Production	
ADS 4814	Dairy Farm Management	

Oral Communication Requirement

CO 1003 Fundamentals of Public Speaking 3

Total hours

124

- 1 Production Electives: ADS 3223 Horse Management; ADS 4113 Swine Science; ADS 4222 Small Ruminant and Diversified Livestock Production; ADS 4324 Beef Cattle Production; ADS 4814 Dairy Farm Management; PO 4333 Broiler Production
- 2 Evaluation Electives: ADS 2102 Equine Conformation and Performance Evaluation, ADS 2122 Advanced Equine Evaluation, ADS 3142 Meats Judging I, ADS 3213 Livestock Growth, Development and Evaluation, ADS 3812 Dairy Cattle Appraisal, ADS 4212 Livestock Evaluation, ADS 4232 Advanced Livestock Evaluation, FNH 2112 Food Products Evaluation.

- ³ Science electives: ADS 4333 Equine Exercise Physiology, BCH 4613 General Biochemistry, BIO 2103 Cell Biology, BIO 3104 Ecology, BIO 3113 Marine Biology, BIO 3303 Parasitology, BIO 3504 Comparative Anatomy, BIO 3524 Biology of Vertebrates, BIO 4113 Evolution, , BIO 4404 Environmental Microbiology, BIO 4414 Microbiology of Foods, BIO 4433 Principles of Virology, BIO 4503 Vertebrate Histology, CH 4521 Organic Chemistry Laboratory II and CH 4523 Organic Chemistry II, CVM 4513 Environmental Toxicology, CVM 4523 Basic Neuroscience, PH 1123 General Physics II, PO 4844 Avian Anatomy and Physiology

Course requirements for Pre-Veterinary students (3 + 1 program) to obtain a B.S. degree in Animal and Dairy Sciences

Because

1. the entrance requirements for the College of Veterinary Medicine satisfy a portion of the course requirements for the Animal and Dairy Sciences curriculum
2. a number of students are enrolled in Animal and Dairy Sciences while satisfying their pre-veterinary requirements and
3. an Animal and Dairy Sciences degree will be especially helpful to a practicing veterinarian,

the following requirements for those electing to apply for a Bachelor of Science degree in Animal and Dairy Sciences after successfully completing the first year of Veterinary Medicine are listed.

General Education Requirements	27
Dept Core (excluding Seminar)	50-51
Science/Veterinary Medicine Concentration (excl. Free Electives)	27-30

To qualify for the Bachelor of Science degree in ADS, a student in the 3+1 program must complete the 3 years of above listed undergraduate course work (105-108 hours) and also successfully complete the first year of the Veterinary Medicine curriculum.

A **minor** is available in Animal and Dairy Sciences by completing a minimum of 17 hours of specified ADS courses. Requirements include an introductory course, an evaluation course, a physiology course, 5 to 7 hours of production courses and either a breeding course or a nutrition course. See an ADS advisor for a complete list of approved courses.