

# ANIMAL SCIENCES: COMPANION & EQUINE SCIENCE, BS

for the degree of Bachelor of Science Major in Animal Sciences, Companion & Equine Science Concentration

department website: <https://ansc.illinois.edu/>

department faculty: Animal Sciences Faculty (<https://ansc.illinois.edu/directory/faculty>)

overview of college admissions & requirements: Agricultural, Consumer & Environmental Sciences (<http://catalog.illinois.edu/schools/aces/academic-units/#text>)

college website: <https://aces.illinois.edu/>

The companion animal and equine science concentration is designed for students intending to pursue a career in those industries generally not associated with traditional meat animal or dairy production. Students will take courses that prepare them for careers in specialized fields of animal care, animal health and animal well-being associated with zoos, kennels, research laboratories, and the racing industry.

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## Prescribed Courses including Campus General Education

Code	Title	Hours
<b>Composition I and Speech</b>		
RHET 105	Writing and Research (or equivalent) (see college Composition I requirement)	4
CMN 101	Public Speaking	3
<b>Advanced Composition</b>		
	Select from campus approved list.	3-4
<b>Cultural Studies</b>		
	Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.	9
<b>Foreign Language</b>		
	Coursework at or above the third level is required for graduation.	
<b>Quantitative Reasoning I</b>		
	Select one of the following:	4-5
MATH 220	Calculus	
MATH 221	Calculus I	
MATH 234	Calculus for Business I	
<b>Quantitative Reasoning II</b>		
	Select one of the following:	3-4
ACE 261	Applied Statistical Methods	
CPSC 241	Intro to Applied Statistics	
ECON 202	Economic Statistics I	
PSYC 235	Intro to Statistics	
STAT 100	Statistics	
SOC 280	Intro to Social Statistics	
<b>Natural Sciences and Technology</b>		

CHEM 102	General Chemistry I	4
& CHEM 103	and General Chemistry Lab I	
CHEM 104	General Chemistry II	4
& CHEM 105	and General Chemistry Lab II	
MCB 100	Introductory Microbiology	5
& MCB 101	and Intro Microbiology Laboratory	

### Humanities and the Arts

Courses selected from campus approved list	6
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### Social Sciences

ECON 102	Microeconomic Principles	3
	or ACE 100 Agr Cons and Resource Econ	

Additional social or behavioral science course; cannot be an economics course. 3-4

### ACES Required

ACES 101	Contemporary Issues in ACES	2
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### Animal Sciences Required

ANSC 100	Intro to Animal Sciences	4
ANSC 101	Contemporary Animal Issues	3
ANSC 103	Working With Farm Animals	2
ANSC 221	Cells, Metabolism and Genetics	3
ANSC 222	Anatomy and Physiology	3
ANSC 223	Animal Nutrition	3
ANSC 224	Animal Reproduction and Growth	4
ANSC 298	Undergraduate Seminar	1
ANSC 398	UG Experiential Learning <sup>1</sup>	1
ANSC 498	Integrating Animal Sciences	2

<sup>1</sup> ANSC 398 only fulfills the degree requirement when taken for a standard letter grade.

Code	Title	Hours
<b>Companion Animal and Equine Science Concentration Required</b>		
	Choose one group: <sup>1</sup>	6
	ANSC 250 Companion Animals in Society & ANSC 307and Companion Animal Management	
	or	
	ANSC 206 Horse Management & ANSC 306and Equine Science	
	Select two of the following Applied Sciences courses: <sup>1</sup>	6
ANSC 201	Principles of Dairy Production	
ANSC 204	Intro Dairy Cattle Evaluation	
ANSC 205	World Animal Resources	
ANSC 206	Horse Management <sup>1</sup>	
ANSC 211	Breeding Animal Evaluation	
ANSC 219	Meat Technology	
ANSC 250	Companion Animals in Society <sup>1</sup>	
ANSC 301	Food Animal Production, Management, and Evaluation	
ANSC 305	Human Animal Interactions	
ANSC 306	Equine Science	
ANSC 307	Companion Animal Management <sup>1</sup>	
ANSC 309	Meat Production and Marketing	
ANSC 310	Meat Selection and Grading	

ANSC 312	Advanced Livestock Evaluation	
ANSC 313	Horse Appraisal	
ANSC 314	Adv Dairy Cattle Evaluation	
ANSC 322	Livestock Feeds and Feeding	
ANSC 370	Companion Animal Policy	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep Production	
ANSC 403	Pork Production	
ANSC 404	Poultry Science	
ANSC 405	Advanced Dairy Management	
ANSC 407	Animal Shelter Management	
ANSC 424	Pet Food & Feed Manufacturing	
ANSC 435	Milk Quality and Udder Health	
ANSC 437	Adv Reproductive Management	
ANSC 471	ANSC Leaders & Entrepreneurs	
Select two of the following Basic Sciences courses:		6
ANSC 251	Epidemics and Infectious Diseases	
ANSC 331	Biology of Reproduction	
ANSC 350	Cellular Metabolism in Animals	
ANSC 363	Behavior of Domestic Animals	
ANSC 366	Animal Behavior	
ANSC 406	Zoo Animal Conservation Sci	
ANSC 409	Meat Science	
ANSC 420	Ruminant Nutrition	
ANSC 421	Minerals and Vitamins	
ANSC 422	Companion Animal Nutrition	
ANSC 431	Advanced Reproductive Biology	
ANSC 438	Lactation Biology	
ANSC 440	Applied Statistical Methods I	
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 445	Statistical Methods	
ANSC 446	Population Genetics	
ANSC 447	Advanced Genetics and Genomics	
ANSC 448	Math Modeling in Life Sciences	
ANSC 449	Biological Modeling	
ANSC 450	Comparative Immunobiology	
ANSC 451	Microbes and the Anim Indust	
ANSC 452	Animal Growth and Development	
ANSC 453	Stem Cell Biology	
ANSC 467	Applied Animal Ecology	
ANSC 509	Muscle Biology	
ANSC 510	Science of Animal Well-Being	
ANSC 520	Protein and Energy Nutrition	
ANSC 521	Regulation of Metabolism	
ANSC 522	Advanced Ruminant Nutrition	
ANSC 523	Techniques in Animal Nutrition	
ANSC 524	Nonruminant Nutrition Concepts	
ANSC 525	Topics in Nutrition Research	
ANSC 526	Adv Companion Animal Nutrition	
ANSC 533	Repro Physiology Lab Methods	
ANSC 541	Regression Analysis	
ANSC 542	Applied Bioinformatics	
ANSC 543	Bioinformatics	
ANSC 545	Statistical Genomics	
ANSC 554	Immunobiological Methods	
ANSC 561	Animal Stress Physiology	
Additional elective courses must be completed to yield at least 126 total Hours for graduation.		25-29
<b>Total Hours</b>		<b>126</b>

<sup>1</sup> ANSC 206, 250, 306 and 307 may NOT be used to meet more than one requirement.