

# ANIMAL SCIENCES: SCIENCE, PRE-VETERINARY & MEDICAL, BS

for the degree of Bachelor of Science Major in Animal Sciences, Science, Pre-Veterinary & Medical concentration

## 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		
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 & CHEM 103	General Chemistry I and General Chemistry Lab I	4
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II	4
MCB 100 & MCB 101	Introductory Microbiology and Intro Microbiology Laboratory	5
<b>Humanities and the Arts</b>		
Courses selected from campus approved list		6
<b>Social Sciences</b>		
ECON 102 or ACE 100	Microeconomic Principles Introduction to Applied Microeconomics	3
Additional social or behavioral science course; cannot be an economics course.		3-4
<b>ACES Required</b>		
ACES 101	Contemporary Issues in ACES	2
<b>Animal Sciences Required</b>		
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	Animal Science Careers and Professional Development	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>Science, Pre-Veterinary and Medical Concentration Required</b>		
Select two of the following Applied Sciences courses:		6
ANSC 201	Principles of Dairy Production	
ANSC 204	Intro Dairy Cattle Evaluation	
ANSC 205	World Animal Resources	
ANSC 206	Horse Management	
ANSC 211	Breeding Animal Evaluation	
ANSC 215	Introduction to Animal Evaluation	
ANSC 219	Meat Technology	
ANSC 250	Companion Animals in Society	
ANSC 301	Food Animal Production, Management, and Evaluation	
ANSC 305	Human Animal Interactions	
ANSC 306	Equine Science	
ANSC 307	Companion Animal Management	
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 360	Technology and Management: The Basics	
ANSC 370	Companion Animal Policy	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep and Goat 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 four of the following Basic Sciences courses:		12
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 454	Neuroimmunology
ANSC 460	The Secret Life of Animals: How Technology Can Help You Observe It and Take Action
ANSC 467	Applied Animal Ecology
ANSC 509	Muscle Biology
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.	
<b>Total Hours</b>	<b>126</b>

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