

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

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

The science and pre-veterinary medical concentration is specifically designed for students interested in graduate school, professional training, or technical positions after the undergraduate degree. It is intended to satisfy most entrance requirements to post-graduate programs and emphasizes basic science courses. The concentration enables a student to complete all of the pre-veterinary science requirements while working towards a B.S. degree.

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Prescribed Courses including Campus General Education

Code	Title	Hours
Composition I and Speech		
RHET 105	Writing and Research (or equivalent) (see college Composition I requirement)	4
CMN 101	Public Speaking	3
Advanced Composition		
	Select from campus approved list.	3-4
Cultural Studies		
	Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.	9
Foreign Language		
	Coursework at or above the third level is required for graduation.	
Quantitative Reasoning I		
	Select one of the following:	4-5
MATH 220	Calculus	
MATH 221	Calculus I	
MATH 234	Calculus for Business I	
Quantitative Reasoning II		
	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	
Natural Sciences and Technology		
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

Humanities and the Arts

Courses selected from campus approved list 6

Social Sciences

ECON 102 Microeconomic Principles 3
or ACE 100 Introduction to Applied Microeconomics

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

ACES Required

ACES 101 Contemporary Issues in ACES 2

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 Animal Science Careers and Professional Development 1
ANSC 398 UG Experiential Learning ¹ 1
ANSC 498 Integrating Animal Sciences 2

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

Code	Title	Hours
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Science, Pre-Veterinary and Medical Concentration Required

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		
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		
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		
ANSC 407	Animal Shelter Management	
ANSC 424	Pet Food & Feed Manufacturing	
ANSC 435	Milk Quality and Udder Health	
ANSC 437		
ANSC 471	ANSC Leaders & Entrepreneurs	
Select four of the following Basic Sciences courses:		12
ANSC 251	Epidemics and Infectious Diseases	
ANSC 331		
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		
ANSC 448		
ANSC 449	Biological Modeling	
ANSC 450	Comparative Immunobiology	
ANSC 451	Microbes and the Anim Indust	
ANSC 452	Animal Growth and Development	
ANSC 453		
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		
ANSC 561		

Additional elective courses must be completed to yield at least 20-29
126 total Hours for graduation.

Total Hours **126**

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

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. For more information, see the corresponding section on the Degree and General Education Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year

First Semester	Hours	Second Semester	Hours
ANSC 100		4 RHET 105 or CMN 101	4
ACES 101		2 ANSC 101	3
CHEM 102		3 CHEM 104	3
CHEM 103		1 CHEM 105	1
CMN 101 or RHET 105		3 MATH 234	4
General Education course		3	
		16	15

Second Year

First Semester	Hours	Second Semester	Hours
ANSC 222		3 ANSC 223	3
ANSC 221		3 ANSC 224	4
ANSC 103		2 ANSC 298	1
STAT 100, CPSC 241, ECON 202, PSYC 235, or SOC 280		3 Language Other than English (3rd level)	4
General Education course		3 General Education course	4
General Education course		3	
		17	16

Third Year

First Semester	Hours	Second Semester	Hours
Concentration		3 ANSC 398	3
Elective			
Concentration		3 Concentration	3
Elective		Elective	

MCB 100	3 Concentration Elective	3
MCB 101	2 ACE 100 or ECON 102	4
General Education course	3 General Education course	3
Free Elective course	3	
	17	16

Fourth Year

First Semester	Hours	Second Semester	Hours
ANSC 498		2 Concentration Elective	3
Concentration Elective		3 General Education course	3
Free Elective course		3 Free Elective course	3
Free Elective course		3 Free Elective course	3
Free Elective course		3 Free Elective course	3
	14		15

Total Hours 126

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Animal Sciences

Animal Sciences website (<https://ansc.illinois.edu/>)
 Animal Sciences Laboratory, 1207 West Gregory Drive, Urbana, IL 61801
 (217) 333-3131
 Animal Sciences email (ansc@illinois.edu)

College of Agricultural, Consumer & Environmental Sciences

College of Agricultural, Consumer & Environmental Sciences website (<https://aces.illinois.edu/>)

ACES Office of Academic Programs

128 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801

Advising

Phone: (217) 333-3570
 Animal Sciences Advising email (anscadvising@illinois.edu)
 Advising website (<https://ansc.illinois.edu/about/contact-us/#paragraph-499>)

Admissions

ACES Undergraduate Admissions (<https://aces.illinois.edu/admissions/>)
 Visit ACES email (visitACES@illinois.edu)
 (217) 333-3380
 University of Illinois Undergrad Admissions (<https://www.admissions.illinois.edu/>)