

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.

Degree Title: Bachelor of Science in Animal Sciences

Minimum Hours Required for Graduation: 126 hours

General Education Requirements:

<https://courses.illinois.edu/gened/DEFAULT/DEFAULT>

Composition I	Humanities and the Arts — 2 courses
Advanced Composition	Natural Sciences and Technology — all listed below
Public Speaking	CHEM 102 and 103
Cultural Studies (3 courses) — Western, Non-Western, and U.S. Minority	CHEM 104 and 105
Foreign Language — 3 years in High School or 3rd level in College	MCB 100 and 101
Calculus I — MATH 220, 221, or 234	Social and Behavioral Sciences
Statistics — STAT 100 (ask advisor for alternatives)	Microeconomics—ACE 100 or ECON 102
	One other Social and Behavioral Sciences Course (cannot be an Economics course)

College and Animal Sciences Requirements:

ACES 101 or ACES 200—ACES Orientation	ANSC 223 – Animal Nutrition
ANSC 100 – Intro to Animal Sciences	ANSC 224 – Animal Reproduction & Growth
ANSC 101 – Contemporary Animal Issues	ANSC 298 – Undergraduate Seminar
ANSC 103 – Working with Farm Animals	ANSC 398 – Undergraduate Experiential Learning
ANSC 221 – Cells, Metabolism and Genetics	ANSC 498 – Integrating Animal Sciences
ANSC 222 – Anatomy and Physiology	

Companion Animal and Equine Sciences Concentration Requirements (Course Titles Located on Back)

Choose 1 Combination:

ANSC 250 and ANSC 307 or
ANSC 206 and ANSC 306

Choose 2 Applied Science Courses:

ANSC 201	ANSC 310	ANSC 402
ANSC 204	ANSC 312	ANSC 403
ANSC 205	ANSC 313	ANSC 404
ANSC 211	ANSC 314	ANSC 405
ANSC 219	ANSC 322	ANSC 407
ANSC 301	ANSC 370	ANSC 424
ANSC 305	ANSC 400	ANSC 435
ANSC 309	ANSC 401	ANSC 437
		ANSC 471

Choose 2 Basic Science Courses:

ANSC 251	ANSC 438	ANSC 451	ANSC 525
ANSC 331	ANSC 440	ANSC 452	ANSC 526
ANSC 350	ANSC 441	ANSC 453	ANSC 533
ANSC 363	ANSC 444	ANSC 467	ANSC 541
ANSC 366	ANSC 445	ANSC 509	ANSC 542
ANSC 406	ANSC 446	ANSC 510	ANSC 543
ANSC 409	ANSC 447	ANSC 520	ANSC 545
ANSC 420	ANSC 448	ANSC 521	ANSC 554
ANSC 421	ANSC 449	ANSC 522	ANSC 561
ANSC 422	ANSC 450	ANSC 523	
ANSC 431	ANSC 450	ANSC 524	

*500-level courses are intended for James Scholars and graduate students. If you wish to take one of these courses, you should contact the instructor directly prior to enrolling.

Electives

In addition to the requirements above, you will need to take a certain number of electives that will help you reach the 126 credit hours that are needed to graduate. Students may wish to pursue a minor or take courses in a subject they have a strong interest. A large majority of our students wish to enter Veterinary School after their bachelor's degree. The following courses will be needed to enter Vet School here at the University of Illinois:

CHEM 232 & 233 — Organic Chemistry with Lab
MCB 450 — Biochemistry

PHYS 101 & 102 — Physics I and II
Biology with Lab — IB 150/151, MCB 150/151, or IB 104

If you wish to pursue Veterinary School, it is important you research the requirements of the vet school(s) you wish to attend. The above list does not encompass the requirements at every school.

Companion Animal & Equine Sciences Concentration Requirements

Choose 1 Combination:

ANSC 206 — Horse Management and ANSC 306 — Equine Science OR
ANSC 250 — Companion Animals in Society and ANSC 307 — Companion Animal Management

Choose 2 Applied Science Courses:

ANSC 201 — Principles of Dairy Production	ANSC 310 — Meat Selection and Grading	ANSC 402 — Sheep Production
ANSC 204 — Intro Dairy Cattle Evaluation	ANSC 312 — Advanced Livestock Evaluation	ANSC 403 — Pork Production
ANSC 205 — World Animal Resources	ANSC 313 — Horse Appraisal	ANSC 404 — Poultry Science
ANSC 211 — Breeding Animal Evaluation	ANSC 314 — Adv Dairy Cattle Evaluation	ANSC 405 — Advanced Dairy Management
ANSC 219 — Meat Technology	ANSC 322 — Livestock Feeds and Feeding	ANSC 407 — Animal Shelter Management
ANSC 301 — Food Animal Prod., Mgmt, & Eval	ANSC 370 — Companion Animal Policy	ANSC 424 — Pet Food & Feed Manufacturing
ANSC 305 — Human Animal Interactions	ANSC 400 — Dairy Herd Management	ANSC 435 — Milk Quality and Udder Health
ANSC 309 — Meat Production and Marketing	ANSC 401 — Beef Production	ANSC 437 — Adv Reproductive Management
		ANSC 471 — ANSC Leaders and Entrepreneurs

Choose 2 Basic Science Courses:

ANSC 251 — Epidemics and Infectious Diseases	ANSC 444 — Applied Animal Genetics	ANSC 520 — Protein and Energy Nutrition
ANSC 331 — Biology of Reproduction	ANSC 445 — Statistical Methods	ANSC 521 — Regulation of Metabolism
ANSC 350 — Cellular Metabolism in Animals	ANSC 446 — Population Genetics	ANSC 522 — Advanced Ruminant Nutrition
ANSC 363 — Behavior of Domestic Animals	ANSC 447 — Advanced Genetics and Genomics	ANSC 523 — Techniques in Animal Nutrition
ANSC 366 — Animal Behavior	ANSC 448 — Math Modeling in Life Sciences	ANSC 524 — Nonruminant Nutrition Concepts
ANSC 406 — Zoo Animal Conservation Science	ANSC 449 — Biological Modeling	ANSC 525 — Topics in Nutrition Research
ANSC 409 — Meat Science	ANSC 450 — Comparative Immunobiology	ANSC 526 — Adv Companion Animal Nutrition
ANSC 420 — Ruminant Nutrition	ANSC 451 — Microbes and the Animal Industry	ANSC 533 — Repro Physiology Lab Methods
ANSC 421 — Minerals and Vitamins	ANSC 452 — Animal Growth and Development	ANSC 541 — Regression Analysis
ANSC 422 — Companion Animal Nutrition	ANSC 453 — Stem Cell Biology	ANSC 542 — Applied Bioinformatics
ANSC 431 — Advanced Reproductive Biology	ANSC 467 — Applied Animal Ecology	ANSC 543 — Bioinformatics
ANSC 438 — Lactation Biology	ANSC 509 — Muscle Biology	ANSC 545 — Statistical Genomics
ANSC 440 — Applied Statistical Methods I	ANSC 510 — Science of Animal Well-Being	ANSC 554 — Immunobiological Methods
ANSC 441 — Human Genetics		ANSC 561 — Animal Stress Physiology

*Course offerings vary from semester to semester. For current semester offerings, please visit <https://courses.illinois.edu/>.
To learn about focus areas and recommended courses, please visit <http://ansc.illinois.edu/undergrads/curriculum>.

*500-level courses are intended for James Scholars and graduate students. If you wish to take one of these courses, you should contact the instructor directly prior to enrolling.

Sample 8-Semester Plan

Freshman Fall Semester

ACES 101	2
ANSC 100	4
CMN 101/111 or RHET 105	3-4
CHEM 102 & CHEM 103	4
Gen Eds or electives ^b	3
TOTAL FOR SEMESTER	16-17

Freshman Spring Semester

ANSC 101	3
CMN 101/112 or RHET 105	3-4
CHEM 104 & CHEM 105	4
MATH 234, 220, or 221	4-5
Gen Eds or electives ^b	3
TOTAL FOR SEMESTER	17-18

Sophomore Fall Semester

ANSC 221	3
ANSC 222	3
ANSC 103 ^a	2
Gen Eds or electives ^b	7
TOTAL FOR SEMESTER	15

Sophomore Spring Semester

ANSC 223	3
ANSC 224	4
ANSC 298 ^a	1
Gen Eds or electives ^b	7
TOTAL FOR SEMESTER	15

Junior Fall Semester

Major/Concentration required	3
Gen Eds or electives ^b	13
TOTAL FOR SEMESTER	16

Junior Spring Semester

Major/Concentration required	6
Gen Eds or electives ^b	9
TOTAL FOR SEMESTER	15

Senior Fall Semester

ANSC 498 ^c	2
Major/Concentration required	6
Gen Eds or electives ^b	9
TOTAL FOR SEMESTER	17

Senior Spring Semester

ANSC 498 ^c	2
Major/Concentration required	6
Gen Eds or electives ^b	9
TOTAL FOR SEMESTER	17

^aANSC 103 and ANSC 298 must be completed by the end of the Sophomore year. Each course may be taken in either the Fall or Spring semesters.

^bStudents pursuing admission to a Veterinary Medicine Program should consider using their elective credits hours to meet expected course work of that program. Course suggestions for the UIUC Veterinary School are on the front of this sheet. Note, some Colleges of Veterinary Medicine also require a second semester of organic chemistry.

^cANSC 498 should be taken during one semester in your senior year.

Want to learn more about Animal Sciences? Visit www.ansc.illinois.edu!