



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:** [courses.illinois.edu/gened/DEFAULT/DEFAULT](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 ( <i>ask advisor for alternatives</i> )	Microeconomics — ACE 100 or ECON 102
	One other Social and Behavioral Sciences Course ( <i>cannot be an Economics course</i> )

**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 & EQUINE SCIENCES CONCENTRATION REQUIREMENTS (COURSE TITLES LOCATED ON BACK):**

<b>Choose 1 Combination:</b>	<b>Choose 2 Applied Science Courses:</b>	<b>Choose 2 Basic Science Courses:</b>
ANSC 250 and ANSC 307 or ANSC 206 and ANSC 306	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	ANSC 251 ANSC 431 ANSC 451 ANSC 526 ANSC 350 ANSC 438 ANSC 452 ANSC 541 ANSC 363 ANSC 440 ANSC 509 ANSC 543 ANSC 366 ANSC 441 ANSC 520 ANSC 406 ANSC 445 ANSC 521 ANSC 409 ANSC 446 ANSC 522 ANSC 420 ANSC 448 ANSC 523 ANSC 421 ANSC 449 ANSC 524 ANSC 422 ANSC 450 ANSC 525

*\*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	PHYS 101 & 102 — Physics I and II
MCB 450 — Biochemistry	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 312 — Advanced Livestock Evaluation	ANSC 404 — Poultry Science
ANSC 204 — Intro Dairy Cattle Evaluation	ANSC 313 — Horse Appraisal	ANSC 405 — Advanced Dairy Management
ANSC 205 — World Animal Resources	ANSC 314 — Adv Dairy Cattle Evaluation	ANSC 407 — Animal Shelter Management
ANSC 211 — Breeding Animal Evaluation	ANSC 322 — Livestock Feeds and Feeding	ANSC 424 — Pet Food & Feed Manufacturing
ANSC 219 — Meat Technology	ANSC 370 — Companion Animal Policy	ANSC 435 — Milk Quality and Udder Health
ANSC 301 — Food Animal Prod., Mgmt. & Eval.	ANSC 400 — Dairy Herd Management	ANSC 437 — Adv. Reproductive Management
ANSC 305 — Human Animal Interactions	ANSC 401 — Beef Production	ANSC 471 — ANSC Leaders and Entrepreneurs
ANSC 309 — Meat Production and Marketing	ANSC 402 — Sheep Production	
ANSC 310 — Meat Selection and Grading	ANSC 403 — Pork Production	

**Choose 2 Basic Science Courses:**

ANSC 251 — Epidemics and Infectious Diseases	ANSC 438 — Lactation Biology	ANSC 509 — Muscle Biology
ANSC 350 — Cellular Metabolism in Animals	ANSC 440 — Applied Statistical Methods I	ANSC 520 — Protein and Energy Nutrition
ANSC 363 — Behavior of Domestic Animals	ANSC 441 — Human Genetics	ANSC 521 — Regulation of Metabolism
ANSC 366 — Animal Behavior	ANSC 445 — Statistical Methods	ANSC 522 — Advanced Ruminant Nutrition
ANSC 406 — Zoo Animal Conservation Science	ANSC 446 — Population Genetics	ANSC 523 — Techniques in Animal Nutrition
ANSC 409 — Meat Science	ANSC 448 — Math Modeling in Life Sciences	ANSC 524 — Nonruminant Nutrition Concepts
ANSC 420 — Ruminant Nutrition	ANSC 449 — Biological Modeling	ANSC 525 — Topics in Nutrition Research
ANSC 421 — Vitamins and Minerals	ANSC 450 — Comparative Immunobiology	ANSC 526 — Adv. Companion Animal Nutrition
ANSC 422 — Companion Animal Nutrition	ANSC 451 — Microbes and the Animal Industry	ANSC 541 — Regression Analysis
ANSC 431 — Advanced Reproductive Biology	ANSC 452 — Animal Growth and Development	ANSC 543 — Bioinformatic Course offerings

Course offerings vary from semester to semester. For current semester offerings, please visit [courses.illinois.edu/](http://courses.illinois.edu/)

To learn about focus areas and recommended courses, please visit [ansc.illinois.edu/undergrads/curriculum](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 111/101 or RHET 105	3-4
CHEM 102 & CHEM 103	4
Gen Eds or elective**	3
<b>TOTAL FOR SEMESTER</b>	<b>16-17</b>

**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**	3
<b>TOTAL FOR SEMESTER</b>	<b>17-18</b>

**Sophomore Fall Semester**

ANSC 221	3
ANSC 222*	3
ANSC 103**	2
Gen Eds or electives	7
<b>TOTAL FOR SEMESTER</b>	<b>15</b>

**Sophomore Spring Semester**

ANSC 223	3
ANSC 224*	4
ANSC 298**	1
Gen Eds or electives	7
<b>TOTAL FOR SEMESTER</b>	<b>15</b>

*\*ANSC 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.*

**Junior Fall Semester**

Major/Concentration required	3
Gen Eds or electives**	13
<b>TOTAL FOR SEMESTER</b>	<b>16</b>

**Junior Spring Semester**

Major/Concentration required	6
Gen Eds or electives**	9
<b>TOTAL FOR SEMESTER</b>	<b>15</b>

*\*\*Students 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.*

**Senior Fall Semester**

ANSC 498***	2
Gen Eds or electives**	9
Major/Concentration required	6
<b>TOTAL FOR SEMESTER</b>	<b>17</b>

**Senior Spring Semester**

ANSC 498***	2
Major/Concentration required	6
Gen Eds or electives**	9
<b>TOTAL FOR SEMESTER</b>	<b>17</b>

*\*\*\*ANSC 498 should be taken during one semester in your senior year.*