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

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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| 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  | 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                                         |       |
| Natural Sciences and Technology                                      |       |

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 | Undergraduate Seminar                                               | 1     |
ANSC 398 | UG Experiential Learning                                             | 1     |
ANSC 498 | Integrating Animal Sciences                                          | 2     |

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

Information listed in this catalog is current as of 08/2021
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 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 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 Indus
ANSC 452 Animal Growth and Development
ANSC 453 Stem Cell Biology
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.

Total Hours 126

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