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

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

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

Prescribed Courses including Campus General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHET 105</td>
<td>Writing and Research (or equivalent) (see college Composition I requirement)</td>
<td>4</td>
</tr>
<tr>
<td>CMN 101</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Select from campus approved list.</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 102</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 103</td>
<td>General Chemistry Lab I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 105</td>
<td>General Chemistry Lab II</td>
<td>4</td>
</tr>
<tr>
<td>MCB 100</td>
<td>Introductory Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>&amp; MCB 101</td>
<td>Intro Microbiology Laboratory</td>
<td>5</td>
</tr>
</tbody>
</table>

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 | 3-4 |

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

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 |

Information listed in this catalog is current as of 12/2020
Animal Sciences: Science, Pre-Veterinary & Medical, BS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 401</td>
<td>Beef Production</td>
</tr>
<tr>
<td>ANSC 402</td>
<td>Sheep and Goat Production</td>
</tr>
<tr>
<td>ANSC 403</td>
<td>Pork Production</td>
</tr>
<tr>
<td>ANSC 404</td>
<td>Poultry Science</td>
</tr>
<tr>
<td>ANSC 405</td>
<td>Advanced Dairy Management</td>
</tr>
<tr>
<td>ANSC 407</td>
<td>Animal Shelter Management</td>
</tr>
<tr>
<td>ANSC 424</td>
<td>Pet Food &amp; Feed Manufacturing</td>
</tr>
<tr>
<td>ANSC 435</td>
<td>Milk Quality and Udder Health</td>
</tr>
<tr>
<td>ANSC 437</td>
<td>Adv Reproductive Management</td>
</tr>
<tr>
<td>ANSC 471</td>
<td>ANSC Leaders &amp; Entrepreneurs</td>
</tr>
</tbody>
</table>

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 467 Applied Animal Ecology
- ANSC 509 Muscle Biology
- ANSC 510
- 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 398 only fulfills the degree requirement when taken for a standard letter grade.

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