

**Pre-veterinary and Wildlife Care Option
Coursework Requirements - 2009-2011 Catalog
33 Total Credits**

Required Courses

| | | |
|----------|-------------------------------------|------|
| AN S 214 | Domestic Animal Physiology | 3 cr |
| NREM 330 | Interpretation of Natural Resources | 3 cr |

6 credits

Restricted Electives

A minimum of 27 credits*

Animal Behavior

| | | |
|----------|-----------------------------------|------|
| AN S 336 | Livestock Behavior and Well-Being | 3 cr |
| BIOL 354 | Animal Behavior | 3 cr |

Select three credits from list:

Natural History

| | | |
|-----------|-------------------------------------|------|
| A ECL 366 | Natural History of Iowa Vertebrates | 3 cr |
| A ECL 458 | Ornithology | 3 cr |
| A ECL 459 | Mammalogy | 3 cr |

Select three credits from list below:

Vertebrate Anatomy

| | | |
|-----------------|--|--------|
| ANTHR 438 | Primate Evolutionary Ecology and Behavior | 3 cr |
| BMS 329 | Anatomy and Physiology of Domestic Animals | 3 cr |
| BMS 415 and 416 | Anatomy of Lab Animals, Avian Anatomy | 4 cr |
| BIOL 155 | Introduction to the Human Body | 3 cr |
| BIOL 335 | Principles of Animal Physiology | 5 cr |
| BIOL 351 | Comparative Chordate Anatomy | 5 cr |
| BIOL 352 | Vertebrate Histology | 4 cr |
| BIOL 434 | General Comparative Endocrinology | 3-4 cr |

Select three credits from list:

Genetics/Development

| | | |
|----------------|---|------|
| AN S 331 | Animal Reproduction | 3 cr |
| BIOL 305, 305L | Embryology with Laboratory | 3 cr |
| BIOL 313** | Principles of Genetics | 3 cr |
| BIOL 423 | Developmental Biology | 3 cr |
| GEN 320** | Genetics, Agriculture and Biotechnology | 3 cr |

Select three credits from list:

Health/Production

| | | |
|-----------------|---|--------|
| A ECL 401 | Introductory Aquatic Animal Health and Medicine | 1 cr |
| A ECL 442 | Aquaculture | 3 cr |
| A ECL 454X | Wildlife Diseases | 3 cr |
| AN S 319 | Animal Nutrition | 3 cr |
| AN S 493 | Workshop in Animal Science | 1-3 cr |
| BIOL 353 | Introductory Parasitology | 4 cr |
| MICRO 201, 201L | Introduction to Microbiology with Laboratory | 3 cr |

Select three credits from list:

Advanced Animal Ecology or NREM

Select three credits in 300-500 level A ECL or NREM courses

Additional Restricted Electives**

If needed, select additional credits from unused courses listed above or additional 300-500 level A ECL or NREM courses

* Students seeking admission to the ISU College of Veterinary Medicine are required to have Biochemistry (BBMB 301 or BIOL 314) prior to admission. One of these courses may be used to meet the credit requirements for this option.

** Pre-vet students should take BIOL 313 or GEN 320 in order to meet the ISU College of Veterinary Medicine admission requirements.

Suggested Sequence of Courses
Pre-veterinary and Wildlife Care Option*

Freshman Year

| | | | | | |
|---|-------------------------|-----------|--------------|--------------------------|------------------|
| BIOL 211 | Principles of Biology | 3 | BIOL 212 | Principles of Biology | 3 |
| BIOL 211L | Prin. of Biology Lab. | 1 | BIOL 212L | Prin. of Biology Lab. | 1 |
| NREM 110 | Orientation in NREM | R | NREM 120 | Intro. Renew. Resources | 3 |
| Ethics/Humanities/Social Science Elective | | 3 | ENGL 150 | Critical Thinking & Comm | 3 |
| MATH 140 | College Algebra | 3 | MATH 142 | Trig. & Analytic Geom. | 3 |
| CHEM 163 | General Chemistry# | 4 | Stat 101/104 | Statistics | 3-4 |
| CHEM 163L | General Chemistry Lab.# | <u>1</u> | LIB 160 | Library Instruction | <u>.5</u> |
| | | <u>15</u> | | | <u>16.5-17.5</u> |

Sophomore Year

| | | | | | |
|---------------------|------------------------|-----------|---|--------------------------|-----------|
| A ECL 365 | Vertebrate Biology | 4 | CHEM 231 | Elem. Organic Chem.# | 3 |
| NREM 211 | Careers in Nat. Res | 1 | CHEM 231L | Lab. Organic Chem.# | 1 |
| A ECL 312 | Ecology | 4 | Sp Cm 212 | Fund. of Public Speaking | 3 |
| Restricted Elective | | 3 | Free Elective/restricted elective | | 6 |
| ENGL 250 | W/O/V/E Communications | <u>3</u> | Ethics/Humanities/Social Science Elective | | <u>3</u> |
| | | <u>15</u> | | | <u>16</u> |

Junior Year**

| | | | | | |
|---|----------------------------|-----------|---|-----------------------------|-----------|
| PHYS 106 | Physics Common Exper.# | 4 | NREM 330 | Interpretation of Nat. Res. | 3 |
| AN S 214 | Domestic Animal Physiology | 3 | Restricted Elective | | 3 |
| Restricted Elective | | 3 | Natural History Elective | | 3 |
| Ethics/Humanities/Social Science Elective | | 3 | Ethics/Humanities/Social Science Elective | | 3 |
| Free Elective | | <u>3</u> | Free Electives | | <u>6</u> |
| | | <u>16</u> | | | <u>18</u> |

Senior Year**

| | | | | | |
|---|-------------------|-----------|-------------------------|--|-----------|
| AN S 336 or BIOL 354 | Behavior Elective | 3 | Restricted Elective | | 3 |
| Restricted Elective | | 3 | Communications Elective | | 3 |
| Genetics/Development Elective | | 3 | Free Elective | | 9 |
| Ethics/Humanities/Social Science Elective | | 3 | | | <u>15</u> |
| Communications Elective | | 3 | | | |
| Free Elective | | <u>2</u> | | | |
| | | <u>17</u> | | | |

* To complete degree program in 4 years students must maintain an average of 16 credits per semester.

** In scheduling coursework, students should pay particular attention to courses with limited offerings (e.g., offered only on alternate years) and to course sequences (i.e., where a course serves as a prerequisite for another course).

Admission to the ISU College of Veterinary Medicine requires a different set of Chemistry and Physics courses. Students should plan to enroll in Chemistry 177, 177L, 178, 331, 331L and 332. The Physics requirement is PHYS 111.