Curriculum in Animal Ecology, 2016-2017 Catalog

Core Degree Requirements

16 Interpersonal and Public Communication Skills
ENGL 150 and 250 (with grades of C or better); LIB 160; SP CM 212 (with grade of C or better); and two additional three-credit courses in written or oral communication from approved list (see opposite side) and communications-intensive requirement

9-10 Mathematical Sciences
MATH 140; and 142 or 145; STAT 101 or 104

13-14 Physical Sciences
CHEM 163, 163L (or 177, 177L, 178); 231 and 231L (or CHEM 331, 331L, 332); PHYS 106, or 115 and 115L, (or PHYS 111) Note: Courses in parentheses are required for vet school admission.

21 Biological Sciences
A ECL 312, 365; BIOL 211, 211L, 212, 212L; NREM 110, 120, and 211

15 University and College Required Electives
Three credits in each of the following five areas:
Ethics (see: http://www.cals.iastate.edu/student-services/ethics for current list);
Humanities (see: https://www.cals.iastate.edu/student-services/humanities for current list);
Social Sciences (see: https://www.cals.iastate.edu/student-services/social-sciences for current list);
U.S. Diversity (see: http://www.registrar.iastate.edu/students/div-ip-guide/usdiversity-courses for current list); and
International Perspectives (see: http://www.registrar.iastate.edu/students/div-ip-guide/IntlPerspectives-current for current list).

R Practical experience requirement (NREM 104) – 400 hours of career-related experience approved by academic adviser.

Options - Students are expected to choose one of the following options, or areas of specialization, by the end of their sophomore year. Please refer to specific option sheets for course requirements and details.

31 Fisheries and Aquatic Sciences
The Fisheries and Aquatic Sciences option concentrates on aquatic ecosystems. Students learn about a variety of aquatic environments and the physical, chemical and biological characteristics of these ecosystems. They may focus on basic fish biology, aquatic ecology and fishery and watershed management.

33 Interpretation of Natural Resources
The Interpretation option concentrates on natural history, earth science, and communication techniques. Students in this option will also study the natural environment and learn how to teach others about natural resource-related topics. Some students pursue conservation law enforcement careers through this option.

33 Pre-veterinary and Wildlife Care
The Pre-vet/Wildlife Care option is suited for two groups of people. The first group is interested in continuing their education in the veterinary field. Students take courses to meet admission requirements for veterinary school. The second group is interested in pursuing careers in the field of wildlife care. Courses cover animal physiology, animal disease detection and prevention, animal behavior, and advanced animal ecology.

42 Wildlife
The Wildlife option concentrates on wildlife habitats, interactions within and among populations, and wildlife management. In addition to in-depth study of wildlife, the option offers courses in policy, administration and law in order to prepare students for the public decision-making process that is necessary in most areas of wildlife management. Some students pursue conservation law enforcement careers through this option.

10 – 23 Free Electives

128 Total Credits

revised 05/16
# Suggested Course Sequence *

## Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 211</td>
<td>Principles of Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 211L</td>
<td>Prin. of Biology Lab.</td>
<td>1</td>
</tr>
<tr>
<td>NREM 110</td>
<td>Orientation in NREM</td>
<td>1</td>
</tr>
<tr>
<td>Required Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 140</td>
<td>College Algebra**</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 163</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 163L</td>
<td>General Chemistry Lab.</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

## Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ECL 365</td>
<td>Vertebrate Biology</td>
<td>4</td>
</tr>
<tr>
<td>NREM 211</td>
<td>Careers in Nat. Res.</td>
<td>1</td>
</tr>
<tr>
<td>A ECL 312</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>MATH</td>
<td>Calculus Elect. (if needed)</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 250</td>
<td>W/O/V/E Communications</td>
<td>3</td>
</tr>
<tr>
<td>LIB 160</td>
<td>Library Instruction</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 231</td>
<td>Elem. Organic Chem.</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 231L</td>
<td>Lab. Organic Chem.</td>
<td>1</td>
</tr>
<tr>
<td>SP CM 212</td>
<td>Fund. of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective/restricted elective</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Required Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

## Junior Year

## Senior Year

* Students are required to successfully complete the majority of the core curriculum courses suggested for the freshman and sophomore years before declaring an option. The academic adviser will review the student's coursework and must approve the option before it will be recognized by the department.

** Initial math course is determined on the basis of high school math and placement test scores. A non-credit math course (Math 10) may be required at additional costs.

### Written/Oral Communications Course List

Select two courses from this list:

- AGEDS 311 Presentation and Sales Strategies for Agricultural Audiences
- ENGL 207 Introduction to Creative Writing
- ENGL 275 Popular Culture Analysis
- ENGL 302 Business Communication
- ENGL 303 Free-Lance Writing for Popular Magazines
- ENGL 304 Creative Writing - Fiction
- ENGL 305 Creative Writing - Nonfiction
- ENGL 306 Creative Writing - Poetry
- ENGL 309 Report and Proposal Writing
- ENGL 310 Rhetorical Analysis
- ENGL 312 Biological Communication
- ENGL 314 Technical Communication
- JL MC 201 Reporting and Writing for the Mass Media
- NREM 330 Principles of Interpretation
- P R 305 Publicity Methods
- SP CM 312 Business and Professional Speaking
- SP CM 313 Communication for the Classroom Teacher

Note: Students must demonstrate communication proficiency by earning a grade of C or better in 6 credits of composition (usually Engl 150 and 250) and 3 credits of speech fundamentals (Sp Cm 212).