# ZOOLOGY: ECOLOGY AND CONSERVATION BIOLOGY, BS

Requirements for Students Matriculating in or before Academic Year 2017-2018. Learn more about University Academic Regulation 3.1 ([http://catalog.okstate.edu/university-academic-regulations/#matriculation](http://catalog.okstate.edu/university-academic-regulations/#matriculation)).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>English Composition</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See Academic Regulation 3.5 (<a href="http://catalog.okstate.edu/university-academic-regulations/#english-composition">http://catalog.okstate.edu/university-academic-regulations/#english-composition</a>)</td>
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<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td></td>
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<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
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</tr>
<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
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</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>American History &amp; Government</strong></td>
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<tr>
<td>HIST 1103</td>
<td>Survey of American History</td>
<td>3</td>
</tr>
<tr>
<td>POLS 1113</td>
<td>American Government</td>
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<tr>
<td></td>
<td><strong>Analytical &amp; Quantitative Thought (A)</strong></td>
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<tr>
<td>MATH 1613</td>
<td>Trigonometry (A)</td>
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<tr>
<td>STAT 4013</td>
<td>Statistical Methods I (A)</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 2013</td>
<td>Elementary Statistics (A)</td>
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<tr>
<td></td>
<td><strong>Humanities (H)</strong></td>
<td></td>
</tr>
<tr>
<td>Courses designated (H)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Sciences (N)</strong></td>
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<td></td>
</tr>
<tr>
<td>Must include one Laboratory Science (L) course</td>
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<td></td>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>PHYS 1114</td>
<td>General Physics (LN)</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 1214</td>
<td>and General Physics (LN)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2014</td>
<td>General Physics (LN)</td>
<td></td>
</tr>
<tr>
<td>&amp; PHYS 2114</td>
<td>and General Physics (LN)</td>
<td>1</td>
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<tr>
<td></td>
<td><strong>Social &amp; Behavioral Sciences (S)</strong></td>
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<tr>
<td>Course designated (S)</td>
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<tr>
<td><strong>Additional General Education</strong></td>
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<tr>
<td>Courses designated (A), (H), (N), or (S)</td>
<td>6</td>
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</tr>
<tr>
<td><strong>Hours Subtotal</strong></td>
<td>41</td>
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</tr>
<tr>
<td><strong>Diversity (D) &amp; International Dimension (I)</strong></td>
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<td></td>
</tr>
<tr>
<td>May be completed in any part of the degree plan</td>
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<td></td>
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<tr>
<td>Select at least one Diversity (D) course</td>
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<td></td>
</tr>
<tr>
<td>Select at least one International Dimension (I) course</td>
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<td></td>
</tr>
<tr>
<td><strong>College/Departmental Requirements</strong></td>
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<tr>
<td><strong>First Year Seminar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;S 1111</td>
<td>A&amp;S First Year Seminar (transfer student with 15 hours exempt)</td>
<td>1</td>
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<tr>
<td><strong>Arts &amp; Humanities</strong></td>
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<tr>
<td>See note 2.a.</td>
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## Natural & Mathematical Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1314</td>
<td>General Chemistry (LN)</td>
<td>9</td>
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<tr>
<td>&amp; CHEM 1515</td>
<td>and General Chemistry (LN)</td>
<td></td>
</tr>
</tbody>
</table>

## Foreign Language

See note 3 | 0

## Upper-Division General Education

Select 6 hours outside major department
See note 2.c.

## Hours Subtotal

13

## Major Requirements

Minimum grade of "C" in each course. Minimum 2.0 GPA in all BIOL courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 1114</td>
<td>Introductory Biology (LN)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 1604</td>
<td>Animal Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3023</td>
<td>General Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 3034</td>
<td>General Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3104</td>
<td>Invertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3114</td>
<td>Vertebrate Morphology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3204</td>
<td>Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 4133</td>
<td>Evolution</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4700</td>
<td>Undergraduate Research Problems (1 hour)</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 4710</td>
<td>Internships in Integrative Biology</td>
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</tr>
<tr>
<td>Select one of the following:</td>
<td>5</td>
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</tr>
<tr>
<td>CHEM 3015</td>
<td>The Chemistry of Organic Compounds</td>
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</tr>
<tr>
<td>CHEM 3053</td>
<td>Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 3112</td>
<td>and Organic Chemistry Lab</td>
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</tr>
<tr>
<td>&amp; CHEM 3153</td>
<td>and Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>MICR 2123</td>
<td>Introduction to Microbiology</td>
<td>3</td>
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<tr>
<td>or MICR 3033</td>
<td>Cell and Molecular Biology</td>
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</tr>
<tr>
<td>Select 3 to 6 additional hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)</td>
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## Related Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 3153</td>
<td>Animal Behavior</td>
<td>3</td>
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<tr>
<td>BIOL 3513</td>
<td>Principles of Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BOT 1404</td>
<td>Plant Biology (LN)</td>
<td>4</td>
</tr>
<tr>
<td>or BOT 3005</td>
<td>Field Botany</td>
<td></td>
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</tbody>
</table>

## Supplemental Courses

Select one of the following: | 3 |
| ENGL 3323 | Technical Writing                               |  |
| ENGL 4563 | Scientific & Tech Lit                           |  |
| GEOG 4053 | Biogeography                                    |  |
| GEOG 4083 | Geography of Grass-Dominated Ecosystems         |  |
| GEOG 4203 | Fundamentals of Geographic Information Systems  |  |
| HIST 4523 | American Environmental History (H)              |  |
| NREM 3083 | Geospatial Technologies for Natural Resources   |  |
| NREM 4043 | Natural Resource Administration and Policy      |  |
| PHIL 3833 | Biomedical Ethics (H)                           |  |
| PHIL 4713 | Philosophy of Science (H)                       |  |
PHIL 4733  Philosophy of Biology (H)
SOC 4153  Sociology of Health and Illness
SOC 4433  Environmental Sociology (S)
SOC 4453  Environmental Inequality (S)

Hours Subtotal  58

Electives
Select 8 hours

May need to include 6 hours of a foreign language. (see note 3)
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 5 additional upper-division hours

Hours Subtotal  8

Total Hours  120

1. College and Departmental Requirements that may be used to meet Gen Ed Requirements.
2. With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements
- See the College of Arts and Sciences Requirements.
- Upper-Division Credit: Total hours must include at least 48 hours in courses numbered 3000 or above.
- Hours in One Department: Hours in one department in excess of 54 will be added to the minimum total of 120 required for graduation.

College of Arts and Sciences Requirements

1. General Education Requirements
   No more than two courses (or eight hours) from the major department may be used to meet General Education and College and Departmental Requirements. The General Education required English Composition, required U.S. History, required American Government, one required MATH or STAT course, and required foreign language for B.A. degrees do not count against the two-course maximum.

2. A&S College/Departmental Requirements
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3325 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking) REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, BOT, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PHYS, and STAT, or courses from other departments that carry an (A) or (N) general education designation.
   c. The required six hours of upper-division General Education may not include courses from the student's major department. This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One 3-hour course in Non-Western Studies from:

<table>
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<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>AMIS 2013</td>
<td>Introduction to American Indian Studies (D)</td>
<td>3</td>
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<tr>
<td>AMIS 4013</td>
<td>American Indian Sovereignty (D)</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 3443</td>
<td>Peoples of Mesoamerica (IS)</td>
<td>3</td>
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<tr>
<td>ANTH 4223</td>
<td>The Aztec Empire (H)</td>
<td>3</td>
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<tr>
<td>ART 3693</td>
<td>Survey of Asian Art (H)</td>
<td>3</td>
</tr>
<tr>
<td>ART 3733</td>
<td>History of Latin American Art I</td>
<td>3</td>
</tr>
<tr>
<td>ART 4603</td>
<td>History of Ancient Egyptian Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 4653</td>
<td>History of Indian Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 4663</td>
<td>History of Chinese Art (H)</td>
<td>3</td>
</tr>
<tr>
<td>ART 4673</td>
<td>History of Japanese Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 4683</td>
<td>Modern and Contemporary Art in Asia</td>
<td>3</td>
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<tr>
<td>ART 4703</td>
<td>Art East and West: Biases and Borrowings</td>
<td>3</td>
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<tr>
<td>ART 4713</td>
<td>The Visual Culture of the Islamic World (H)</td>
<td>3</td>
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<tr>
<td>ART 4763</td>
<td>Native American Art and Material Culture</td>
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<tr>
<td>CHIN 1813</td>
<td>Elementary Chinese II</td>
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<tr>
<td>ENGL 2963</td>
<td>Survey of Nonwestern Traditions (HI)</td>
<td>3</td>
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<tr>
<td>ENGL 3183</td>
<td>Native American Literature (DH)</td>
<td>3</td>
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<tr>
<td>ENGL 3190</td>
<td>Readings in Postcolonial and Multiethnic Literature (African Novel)</td>
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<tr>
<td>ENGL 4330</td>
<td>Studies in Native American Literature</td>
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<tr>
<td>FLL 1000</td>
<td>Special Studies in Foreign Languages and Literatures (Arabic 2 &amp; Mvskoke2)</td>
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<tr>
<td>GEOG 3053</td>
<td>Introduction to Central Asian Studies (IS)</td>
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<tr>
<td>GEOG 3733</td>
<td>Russia and Its Neighbors (IS)</td>
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<td>GEOG 3753</td>
<td>Asia (IS)</td>
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<td>GEOG 3763</td>
<td>Africa (IS)</td>
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<td>GEOG 3783</td>
<td>The Middle East (IS)</td>
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<tr>
<td>HIST 1713</td>
<td>Survey of Eastern Civilization (H)</td>
<td>3</td>
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<tr>
<td>HIST 3013</td>
<td>Ancient Egypt and Israel (H)</td>
<td>3</td>
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<tr>
<td>HIST 3043</td>
<td>Ancient Mesopotamia: Iraq, Iran &amp; Syria from 4000-333 B.C. (H)</td>
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<tr>
<td>HIST 3053</td>
<td>Introduction to Central Asian Studies (IS)</td>
<td>3</td>
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<td>HIST 3123</td>
<td>The History of Modern Africa (HI)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3133</td>
<td>African Diaspora History (H)</td>
<td>3</td>
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<tr>
<td>HIST 3153</td>
<td>Russia to 1861 (H)</td>
<td>3</td>
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<tr>
<td>HIST 3163</td>
<td>Russia Since 1861 (HI)</td>
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<tr>
<td>HIST 3203</td>
<td>The Medieval World, 500-1500 (H)</td>
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<tr>
<td>HIST 3403</td>
<td>East Asia to 1800 (H)</td>
<td>3</td>
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<tr>
<td>HIST 3413</td>
<td>East Asia Since 1800 (HI)</td>
<td>3</td>
</tr>
<tr>
<td>HIST 3423</td>
<td>Modern Japan (HI)</td>
<td>3</td>
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<tr>
<td>HIST 3433</td>
<td>Modern China (HI)</td>
<td>3</td>
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<tr>
<td>HIST 3443</td>
<td>Gender Relations in Chinese History (H)</td>
<td>3</td>
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<td>HIST 3503</td>
<td>Medieval Islamic History (H)</td>
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<tr>
<td>HIST 3513</td>
<td>Modern Middle East (HI)</td>
<td>3</td>
</tr>
</tbody>
</table>
3. Foreign Language Proficiency

- a. The foreign language requirement for the B.A. may be satisfied by 10 hours college credit in the same language, or equivalent proficiency (e.g., passing an advanced standing examination; completing a second-year or higher college-level course in the language, etc.).

- b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second year level of study). It may also be satisfied by any of the options listed above for the B.A. utilizing elective hours.

- c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 5 hours college credit in the same language with no grade below C (or pass an advanced standing examination equivalent to 5 hours of college credit).

4. Exclusions

- a. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54 hour maximum allowed from one department.

- b. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

5. Teacher Certification

Students can satisfy the requirements for secondary schools teaching certification while earning a B.A. or B.S. in the College of Arts & Sciences. Those interested should see their Arts and Sciences adviser and the OSU Professional Education Unit in room 325 Willard.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.

- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.

- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.

- Degrees that follow this plan must be completed by the end of Summer 2023.