# Bachelor of Arts in Biology

<table>
<thead>
<tr>
<th>Semester</th>
<th>Biology Courses</th>
<th>Chemistry Courses</th>
<th>Physics Courses</th>
<th>Math/Statistics Courses</th>
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</thead>
<tbody>
<tr>
<td><strong>1ST YEAR</strong>&lt;br&gt;Fall Semester</td>
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<td></td>
<td>Calculus (1 course, see options)&lt;sup&gt;A&lt;/sup&gt;</td>
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<tr>
<td>Spring Semester</td>
<td>Foundations of Biology (BIOL:1411)</td>
<td>Principles of Chemistry I (CHEM:1110)</td>
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<td>Principles of Chemistry II (CHEM:1120)</td>
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<td><strong>2ND YEAR</strong>&lt;br&gt;Fall Semester</td>
<td>Diversity of Form &amp; Function (BIOL:1412)</td>
<td>Organic Chemistry I (CHEM:2210)</td>
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<td>Statistics (1 course, see options)&lt;sup&gt;B&lt;/sup&gt;</td>
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<td>Spring Semester</td>
<td>Fundamental Genetics (BIOL: 2512)</td>
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<td><strong>3RD YEAR</strong>&lt;br&gt;Fall Semester</td>
<td>Evolution (BIOL:3172)</td>
<td>Biochemistry (BIOC:3110) or Organic Chemistry II (CHEM:2220)</td>
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<tr>
<td>Spring Semester</td>
<td>Biology Breadth Requirements (3 courses, see options)&lt;sup&gt;D&lt;/sup&gt;</td>
<td>Biology Electives (3 courses, see options)&lt;sup&gt;E&lt;/sup&gt;</td>
<td>Course with Laboratory (1 course, see options)&lt;sup&gt;F&lt;/sup&gt;</td>
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<tr>
<td><strong>4TH YEAR</strong>&lt;br&gt;Fall Semester</td>
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<td>Spring Semester</td>
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Bachelor of Arts in Biology

Requirements

Calculus or Math - Choose one of the following options:
- Calculus for the Biological Sciences (MATH:1460, 4 s.h., Fall and Spring semesters)
- Engineering Mathematics I: Single Variable Calculus (MATH:1550, 4 s.h., Fall and Spring semesters)
- Calculus 1 (MATH:1850, 4 s.h., Fall and Spring semesters)

Statistics - Choose one of the following options:
- Statistical Methods and Computing (STAT:2010, 3 s.h., Fall and Spring semesters)
- Biostatistics (STAT:3510, 3 s.h., Fall and Spring semesters)

Physics - Choose one of the following sequences:
- College Physics I (PHYS:1511, 4 s.h., Fall and Spring semesters) +
  College Physics II (PHYS:1512, 4 s.h., Fall and Spring semesters)
- Introductory Physics I (PHYS:1611, 4 s.h., Fall semesters) +
  Introductory Physics II (PHYS:1613, 4 s.h., Fall semesters)

Biology Breadth Requirements - Choose at least one course from each of the following three breadth menus:
- Molecular and Cellular Biology:
  - Cell Biology (BIOL:2723, 3 s.h., Spring semesters)
  - Introduction to Neurobiology (BIOL:2753, 3 s.h., Fall semesters)
  - Genomics (BIOL:3314, 3 s.h., Fall semesters)
  - Molecular Genetics (BIOL:3713, 4 s.h., Fall semesters)
- Developmental Biology and Physiology:
  - Endocrinology (BIOL:2254, 3 s.h., Fall semesters)
  - Introduction to Developmental Biology (BIOL:2753, 3 s.h., Fall semesters)
  - Animal Physiology (BIOL:3343, 3 s.h., Spring semesters)
  - Plant Developmental Biology (BIOL:3363, 3 s.h., Spring semesters)
  - Plant Response to the Environment (BIOL:3663, 3 s.h., Fall semesters)
- Ecology and Evolutionary Biology:
  - Biogeography (BIOL:2374, 3 s.h., Fall semesters)
  - Ecology (BIOL:2673, 3 s.h., Fall semesters)
  - Population Genetics and Molecular Evolution (BIOL:4273, 3 s.h., Spring semesters)

Biology Electives - Choose three of the following (please check ISIS for course availability):
**Note: In order to complete all electives you may choose either from the list below or from BIOL: 2000 course level or above. However, each credit can only be used toward one element of your degree.**
- Modern Human Origins (ANTH: 3307, 3 s.h., Fall semesters)
- Primate Behavior (ANTH: 3310, 3 s.h., Fall semesters)
- Primate Evolutionary Biology (ANTH: 3322, 3 s.h., Spring semesters)
- Human Evolutionary Genetics (ANTH: 3325, 3 s.h., Fall semesters)
- Biology of Aging (ASP: 3160, 3 s.h., Fall and Spring semesters)
- Marine Ecosystems and Conservation (EES: 3070, 3 s.h., Fall semesters)
- Evolution of the Vertebrates (EES: 3220, 3 s.h., Spring semesters)
- Evolution of Ecosystems (EES: 4700 or ENVS: 4700, 3 s.h., Spring semesters)
- Skeletal Muscle Physiology (HHP: 4130, 3 s.h., Fall semesters)
- Survey of Immunology (MICR: 3147, 3 s.h., Fall semesters)

One of the electives may be chosen from the following:
- Geography of Health (GEOG: 3110, 3 s.h.) or (GHS:4111, 3 s.h., Fall semesters)
- History of Public Health (HIST: 4160, 3 s.h., Fall semesters)
- History of Global Health (HIST: 4162, 3 s.h., Fall semesters)
- Ancient and Medieval Science (HIST: 4419, 3 s.h., Fall semesters)
- Introduction to Philosophy of Science (PHIL: 3604, 3 s.h., Spring semesters)

Course with Laboratory - Choose one of the following (must not have been used as a breadth menu course):
- Vertebrate Zoology (BIOL: 2346, 4 s.h., Fall semesters)
- Animal Behavior (BIOL: 3244, 5 s.h., Fall semesters)
- Cell Biology Laboratory (BIOL: 3626, 4 s.h., Fall semesters)
- Neurobiology Laboratory (BIOL: 3656, 4 s.h., Spring semesters)
- Evolution Lab (BIOL: 3676, 4 s.h., Fall semesters)
- Genetics and Biotechnology Lab (BIOL: 3716, 4 s.h., Spring semesters)
- Developmental Biology Lab (BIOL: 3736, 4 s.h., Spring semesters)
- Honors Investigations (BIOL: 4999, 6 s.h., Fall and Spring semesters)
- Experimental Biochemistry (BIOC: 3140, 2 s.h., Fall semesters)
- Principles of Paleontology (EES: 3210, 3 s.h., Fall semesters)
- General Microbiology (MICR: 2157, 5 s.h., Fall and Spring semesters)
- Iowa Lakeside Laboratory (approved 4 s.h., Summer only)

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