The Bachelor of Arts major provides a broad training in biology and allows specializations through choice of electives. It offers basic preparation for entry-level employment positions, graduate work or an advanced degree in all health-related areas. The combination of required and elective courses needs to equal a minimum of 58 credit hours.

### Introductory Track
- BIOL 2051 – General Biology: Organismal Diversity, 4 hrs.
- BIOL 2052 – General Biology: Cell Structure & Function, 4 hrs.
- BIOL 3100 – Evolution, Ecology, & the Nature of Science, 3 hrs.
- BIOL 3140 – Genetics, 4 hrs.

### Required Chemistry*
- CHEM 1110 – General Chemistry I, 4 hrs.
- CHEM 1120 – General Chemistry II, 4 hrs.

### Required Advanced Chemistry
(Choose one of the options below)
- CHEM 2040 – Applied Organic & Biochemistry, 4 hrs.
- OR
  - CHEM 2210 – Organic Chemistry I, 3 hrs. **AND**
  - CHEM 2230 – Organic Chemistry Lab, 2 hrs.

### Required Math
(Choose one of the options below)
- MATH 1120 – Math for the Biological Sciences, 3 hrs. **AND**
- MATH 1130 – Trigonometry, 2 hrs.
- OR
  - MATH 1140 – Precalculus, 4 hrs.
  - OR
  - MATH 1420 – Calculus, 4 hrs.

### Required Earth Science or Physics
(Choose one of the options below)
- EARTHSCI 1300 – Intro to Geology, 4 hrs. **AND**
- EARTHSCI 1320 – Earth History, 4 hrs.
- OR
  - PHYSICS 1511 – General Physics I, 4 hrs. **AND**
  - PHYSICS 1512 – General Physics II, 4 hrs.

### Major Elective Credit Courses
(Choose 17-19 hrs. of elective credits to total 58)
- Biology electives are listed on reverse side
- Science courses at Iowa Lakeside Laboratory satisfy elective requirements. Check with your advisor for more information.

### Additional Chemistry courses that satisfy elective requirement:
- CHEM 4510 – Biochemistry I, 3 hrs.
- CHEM 2220 – Organic Chemistry II, 3 hrs.

### Notes:
- Must have a UNI cumulative and UNI major/plan GPA of 2.0, or higher, with a grade of C- (1.67), or better, in all courses applied to the major.
- A minimum of 7 credits of 4000 level biology electives are required (BIOL 4198 – Independent Study and CHEM 4510 – Biochemistry I cannot be counted toward this 7 credits).
- At least 4 credits of biology electives at the 4000 level need to be taken at UNI.
- BIOL 3101 – Anatomy & Physiology I counts as university elective credit, not as a biology major elective.
- Cannot count more than a combined **4 credits** of the following courses toward the biology major elective requirements:
  - BIOL 3185 – Readings in Biology
  - BIOL 3190 – Undergraduate Research
  - BIOL 4198 – Independent Study
- If *CHEM 1130 – General Chemistry I-II, 5 hrs., is taken, then 3 additional biology electives are required to reach a 58 credit major.
- Students invited to do Honors Research will complete 4 credit hours of BIOL 3190 – Undergraduate Research and 1 credit hour of BIOL 3191 – Senior Thesis. Students must declare the Honors Research Emphasis in order for it to reflect on the degree.
### Choose 17-19 hrs. of Elective Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Offered</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3102</td>
<td>Anatomy &amp; Physiology II</td>
<td>Fall, Spring, Summer</td>
<td>4 hrs. *</td>
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<tr>
<td>BIOL 3106</td>
<td>Vertebrate Anatomy</td>
<td>Spring</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 3107</td>
<td>Environmental Physiology</td>
<td>Variable</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 3108</td>
<td>Vertebrate Histology</td>
<td>Variable</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 3112</td>
<td>Invertebrate Zoology</td>
<td>Variable</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 3118</td>
<td>Marine Biology</td>
<td>Variable</td>
<td>3 hrs.</td>
</tr>
<tr>
<td>BIOL 3120</td>
<td>Plant Diversity &amp; Evolution</td>
<td>Spring</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 3147</td>
<td>Cancer &amp; Emerging Infectious Diseases</td>
<td>Spring</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 3151</td>
<td>General Microbiology</td>
<td>Fall &amp; Spring</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 3160</td>
<td>Field Zoology of Vertebrates</td>
<td>Spring</td>
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<tr>
<td>BIOL 3170</td>
<td>Entomology</td>
<td>Variable</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4105</td>
<td>Wildlife Ecology &amp; Management</td>
<td>Odd Falls</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 4108</td>
<td>Biodiversity Conservation Policy</td>
<td>Even Springs</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4114</td>
<td>Comparative Animal Physiology</td>
<td>Even Falls</td>
<td>4 hrs. #</td>
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<tr>
<td>BIOL 4116</td>
<td>Neurobiology</td>
<td>Spring</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4121</td>
<td>Plant Biotechnology</td>
<td>Odd Falls</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 4122</td>
<td>Plant Physiology</td>
<td>Variable</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>VIOL 4127</td>
<td>Bioinformatics Applications for Biology</td>
<td>Variable</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4128</td>
<td>Cell Biology</td>
<td>Spring</td>
<td>4 hrs. #</td>
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<tr>
<td>BIOL 4129</td>
<td>Genomics</td>
<td>Even Falls</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4137</td>
<td>Vertebrate Physiology</td>
<td>Odd Falls</td>
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<td>BIOL 4142</td>
<td>Evolutionary Biology</td>
<td>Spring</td>
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<tr>
<td>BIOL 4144</td>
<td>Virology</td>
<td>Even Springs</td>
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<td>BIOL 4146</td>
<td>Developmental Biology of Animals</td>
<td>Fall</td>
<td>4 hrs.</td>
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<tr>
<td>BIOL 4150</td>
<td>Immunology</td>
<td>Fall</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4157</td>
<td>Biostatistics</td>
<td>Fall</td>
<td>3 hrs.</td>
</tr>
<tr>
<td>BIOL 4164</td>
<td>Mammalogy</td>
<td>Fall</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4166</td>
<td>Plant Systematics</td>
<td>Odd Falls</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4167</td>
<td>Conservation Biology</td>
<td>Spring</td>
<td>3 hrs.</td>
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<tr>
<td>BIOL 4168</td>
<td>Ecology</td>
<td>Fall</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4172</td>
<td>Developmental Plant Anatomy</td>
<td>Even Falls</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4180</td>
<td>Restoration Ecology</td>
<td>Odd Springs</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>BIOL 4198</td>
<td>Independent Study</td>
<td>Fall, Spring, Summer</td>
<td>1 – 6 hrs. ***</td>
</tr>
</tbody>
</table>

### Research Associated Credits:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Offered</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3185</td>
<td>Readings in Biology</td>
<td>Fall, Spring, Summer</td>
<td>1 – 3 hrs.</td>
</tr>
<tr>
<td>BIOL 3189</td>
<td>Seminar</td>
<td>Variable</td>
<td>1 – 2 hrs.</td>
</tr>
<tr>
<td>BIOL 3190</td>
<td>Undergraduate Research in Biology</td>
<td>Fall, Spring, Summer</td>
<td>1 – 3 hrs. ***</td>
</tr>
<tr>
<td>BIOL 3191</td>
<td>Senior Thesis</td>
<td>Fall, Spring, Summer</td>
<td>1 hr.</td>
</tr>
</tbody>
</table>

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**Notes:**

1. Prerequisite for 3000 level courses include completion of BIOL 2051, BIOL 2052, CHEM 1110 and CHEM 1120. All with a C- or higher.

2. Prerequisite for 4000 level courses include junior standing and completion of
   a. Two semester sequence of General Biology and General Chemistry (listed above), BIOL 3100 – Evolution, Ecology & the Nature of Science, and BIOL 3140 – Genetics. All with a C- or higher.
   c. Courses with # have additional prerequisites. Check courses catalog for complete details.

3. * BIOL 3101 – Anatomy and Physiology I counts as university elective credit, not biology elective credit. A student must take BIOL 3101 – Anatomy and Physiology I OR BIOL 3106 – Vertebrate Anatomy AND BIOL 3102 – Anatomy and Physiology II at UNI for BIOL 3102 to count as biology elective credit for a major or minor.

4. *** BIOL 3190 - Undergraduate Research in Biology and BIOL 4198 – Independent Study require students to contact faculty members to inquire about available opportunities.

5. The official degree requirements as well as policies and procedures can be found at [www.uni.edu/catalog](http://www.uni.edu/catalog)

6. Students pursuing a biology major or minor must earn a C- or better in all coursework required for their major or minor. Additionally, students must have a UNI Major/Plan GPA and UNI Cumulative GPA of 2.0 or better at the time of graduation.