### Biology, B.S.

**Department of Biology, 303-556-3213, Science Building 2042**

**College of Letters, Arts, & Sciences**

This sheet applies to the 2014-15 catalog only. It does not replace the full catalog or departmental advising sheets as official statements of requirements. Students with declared majors must work with a faculty advisor on course selection.

<table>
<thead>
<tr>
<th>Category</th>
<th>Minimum Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Studies</td>
<td>41-42</td>
</tr>
<tr>
<td>Major courses</td>
<td>40</td>
</tr>
<tr>
<td>Minor</td>
<td>18 min.</td>
</tr>
<tr>
<td>Required non-Biology electives</td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td>12-13</td>
</tr>
<tr>
<td>Total to graduate (min. 40 hrs upper-division)</td>
<td>120 min.</td>
</tr>
</tbody>
</table>

*TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS*

**Written Communication**

- **ENG 1010 (3 hrs)** Composing Arguments*
  - or **ENG 1008/1009 (6 hrs)** Intro to Composition, Parts 1 & 2*
- **ENG 1020 (3 hrs)** Freshman Comp: Analysis, Research, & Documt.
  (ENG 1020 must be completed within 45 credit hours)

**Oral Communication**

- (3 hrs)

**Quantitative Literacy**

- **MTH 1110 (4 hrs)** College Algebra or higher level math
- **MTH (3-4 hrs)**

**Arts and Humanities**

- (3 hrs.)
- (3 hrs.)

**Historical**

- (3 hrs.)

**Natural and Physical Sciences**

- **CHE1800 (4 hrs)** General Chemistry I
- **CHE1810 (4 hrs)** General Chemistry II
- **CHE1850 (2 hrs)** General Chemistry Lab

**Social and Behavioral Sciences I**

- (3 hrs.)

**Social and Behavioral Sciences II**

- (3 hrs.)

**Global Diversity**

- (3 hrs.) may be satisfied within General Studies

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**MAJOR COURSES (Please see a Faculty Advisor in BIO department)**

- **BIO 1080 (3 hrs)** General Biology I
- **BIO 1090 (1 hrs)** General Biology Lab I
- **BIO 1081 (3 hrs)** General Biology II
- **BIO 1091 (1 hrs)** General Biology Lab II
- **BIO 3600 (4 hrs)** General Genetics (check catalog for prereqs.)
  - or **BIO 3610 (4 hrs)** Genetics: Principles and Analysis

Select two of these options:

- **Option 1**: **BIO 2100 (5 hrs)** General Botany
- **Option 2**: **BIO 2400 (5 hrs)** General Microbiology
- **Option 3**: **BIO 2310 (4 hrs)** and **BIO 2320 (4 hrs)**
  - Human Anatomy & Physiology I & II
- **Option 4**: **BIO 3050 (4 hrs)** Cell and Molecular Biology
- **Option 5**: Either **BIO 3200 (4 hrs)** Invertebrate Zoology or **BIO 3260 (4 hrs)** Vertebrate Zoology

Select one of the following:

- **BIO 4510 (4 hrs)** Microbial Ecology (Senior Experience)
- **BIO 4540 (4 hrs)** Plant Ecology (Senior Experience)
- **BIO 4550 (4 hrs)** Animal Ecology (Senior Experience)

Biology Electives – to total 40 hrs., selected in consultation with a BIO faculty advisor. At least 21 semester hours of the major (including genetics, ecology, and upper-division electives) must be from 3000- and 4000-level courses in Biology.

**Required Non-Biology Courses:**

- One year of college general chemistry with lab (CHE 1800, CHE 1810, CHE 1850), Organic Chemistry I with lab (CHE 3100 and CHE 3120), either Biochemistry I (CHE 4310) or Organic Chemistry II (CHE 3110), and one year of mathematics starting with MTH 1110 or above, are requisites for a bachelor of science major in Biology.

**MINOR (required)**

- **Multicultural** (may be taken in the major, minor, general studies, or as an elective).

**ELECTIVES**