**General Studies**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major courses</td>
<td>35</td>
</tr>
<tr>
<td>CCA courses</td>
<td>8</td>
</tr>
<tr>
<td>Minor/second major in Chemistry</td>
<td>26</td>
</tr>
<tr>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total to graduate (min. 40 hrs upper-division)</strong></td>
<td><strong>120 min.</strong></td>
</tr>
</tbody>
</table>

 Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.

This sheet applies to the 2013-14 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 and sequencing to ensure a timely graduation.

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### Biology, B.S., Cell and Molecular Concentration

**303-556-3213 Science Building 2042**

**School of Letters, Arts, & Sciences**

**Catalog 13-14**

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### MAJOR COURSES (Please see a Faculty Advisor)

- **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 2400** (5 hrs.) General Microbiology
- **BIO 3020** (2 hrs.) Laboratory Techniques
- **BIO 3050** (4 hrs.) Cell and Molecular Biology
- **BIO 3600** (4 hrs.) General Genetics (check catalog for prerequisites)
- **BIO 3980/4980** (2 hrs.) Internship/Independent Study
- **BIO 4060** (2 hrs.) Cellular and Molecular Biology Laboratory
- **BIO 4510** (4 hrs.) Microbial Ecology (Senior Experience)
- **BIO 3350** (4 hrs.) Immunology
- **BIO 4050** (4 hrs.) Advanced Cell and Molecular Biology
- **BIO 4070** (3 hrs.) Biology of Cancer
- **BIO 4440** (3 hrs.) Virology
- **BIO 4470** (4 hrs.) Microbial Genetics
- **BIO 4820** (4 hrs.) Developmental Biology

Required Non-Biology courses:

One year of math starting with MTH 1110 or higher (see General Studies)

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### CHEMISTRY MINOR REQUIRED or second major in Chemistry.

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### Multicultural Requirement

(may be satisfied within General Studies, major, minor or elective)

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### MINOR (required)

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### ELECTIVES

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### Written Communication

- **ENG 1010** (3 hrs.) Composing Arguments*
- **ENG 1008/1009** (6 hrs.) Composing Arguments, Parts I & II*
- **ENG 1020** (3 hrs.) Freshman English: Rsrch, Anly, & Documt. (to be completed within 60 credits at Metro)

### 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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*TO BE COMPLETED WITHIN FIRST 30-CREDIT HOURS AT MSU-Denver*