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

303-556-3213 Science Building 2042

This sheet applies to the 2012-13 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.

<table>
<thead>
<tr>
<th>General Studies</th>
<th>41-42</th>
<th>Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major courses</td>
<td>35</td>
<td></td>
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<tr>
<td>CCA courses</td>
<td>8</td>
<td></td>
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<tr>
<td>Minor/second major in Chemistry</td>
<td>26</td>
<td></td>
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<tr>
<td>Electives</td>
<td>10</td>
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<td>Total to graduate (min. 40 hrs upper-division)</td>
<td>120</td>
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*TO BE COMPLETED WITHIN FIRST 30 COLLEGE-LEVEL CREDIT HOURS*

**Written Communication**

- **ENG 1010 (3 hrs.)** Freshman English: The Essay*  
- **ENG 1008/1009 (6 hrs.)** Freshman Comp: The Essay Part I & II*  
- **ENG 1020 (3 hrs.)** Freshman English: Anal., Rsrch. & Docum. (to be completed within first 45 college-level credits)

**Quantitative Literacy**

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

**Oral Communication**

- (**3 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

**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 3050 (4 hrs.)** Cell and Molecular Biology  
- **BIO 3600 (4 hrs.)** General Genetics (check catalog for prerequisites)  
- **BIO 4510 (4 hrs.)** Microbial Ecology (Senior Experience)

Required Community College of Aurora courses:

- **BIO 268 (4 hrs.)** Methods in Cell Biology and Immunology  
- **BIO 269 (4 hrs.)** Nucleic Acid Techniques and Molecular Cloning

Select 10 hours of the following in consultation with a faculty advisor:

- **BIO 3210 (4 hrs.)** Histology  
- **BIO 3270 (4 hrs.)** Parasitology  
- **BIO 3340 (3 hrs.)** Endocrinology  
- **BIO 3350 (4 hrs.)** Immunology  
- **BIO 3400 (4 hrs.)** Microbial Physiology  
- **BIO 4050 (4 hrs.)** Advanced Cell and Molecular Biology  
- **BIO 4060 (2 hrs.)** Cellular and Molecular Biology Laboratory  
- **BIO 4440 (3 hrs.)** Virology  
- **BIO 4450 (5 hrs.)** Pathogenic Microbiology  
- **BIO 4470 (4 hrs.)** Microbial Genetics  
- **BIO 3980/4980 (2 hrs.)** Internship/Independent Study

Required Non-Biology courses

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

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

**Multicultural Requirement**

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

**MINOR (required)**

**ELECTIVES**