

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

303-556-3213 Science Building 2042

Catalog 12-13

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.

General Studies	41-42
Major courses	35
CCA courses	8
Minor/second major in Chemistry	26
Electives	10
<b>Total to graduate (min. 40 hrs upper-division)</b>	<b>120</b>

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

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

### Written Communication

- ENG 1010 (3 hrs.) Freshman English: The Essay\*  
**or**  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**