

# Biology, B.S.

303-556-3213 Science Building 2042

School of Letters, Arts, & Sciences

Catalog 13-14

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

General Studies	41-42	
Major courses	40	Students who have reached junior standing (60 hrs) should request a CAPP (graduation compliance report) and review it with a faculty advisor.
Minor	18 min.	
Required non-Biology electives	8	
Electives	12-13	
<b>Total to graduate (min. 40 hrs upper-division)</b>	<b>120 min.</b>	

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

### Written Communication

- ENG 1010 (3 hrs.) Composing Arguments\*  
**or**  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

## ELECTIVES

### 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 3600 (4 hrs.) General Genetics (check catalog for prereqs.)

### 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 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 Bio-chemistry 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).