

Biology, B.S., Cell and Molecular Concentration

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

College of Letters, Arts, & Sciences

Catalog 15-16

This sheet applies to the 2015-16 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
Total to graduate (min. 40 hrs upper-division)	120 min.

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.) 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 1112 College Algebra Through Modeling preferred)
- ___ 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)

MAJOR COURSES (Please see 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 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
- or BIO 3610 (4 hrs.) Genetics: Principles and Analysis
- ___ BIO 3980 or 4980 (2 hrs.) Internship/Independent Study
- ___ BIO 4060 (2 hrs.) Cellular and Molecular Biology Laboratory
- ___ BIO 4510 (4 hrs.) Microbial Ecology (Senior Experience)

Additional upper-division, biology courses must be completed. The total number of semester hours required in biology is 40, 21 of which must be upper-division (3000-4000 level courses). Electives must be chosen from the following list, unless pre-approved by a biology faculty advisor:

- ___ BIO 3350 (3 hrs.) Immunology
- ___ BIO 3351 (1 hr.) Immunology Lab
- ___ BIO 4050 (3 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)

CHEMISTRY MINOR REQUIRED or second major in Chemistry.

___ **Multicultural Requirement**

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

MINOR (required)

ELECTIVES