B.S. - BIOLOGY / Biotechnology concentration
Effective Fall 2018. (An overall GPA of at least 2.5 is required to remain in this concentration).

GENERAL EDUCATION PROGRAM* (47 credits)

* Refer to the Undergraduate Catalog to determine the specific courses that can be counted under each section.

ALL STUDENTS are prohibited from counting more than two (2) courses from the same participating academic program toward their General Education Requirements.

FOUNDATIONS (15 credits)
  - First Yr. Seminar (3) UNIV 101
  - Academic Writing (3 cr.) ENG 114 or 115
  - Oral Communication (3 cr.) HCS 100
  - History (3 cr.) HIS 105
  - Quantitative (Q) (3 cr.) DOT 200
  - Mathematics (M) MAT 211 (4 cr) (MAT 211 - required by Biology major)

INTERCONNECTIONS (9 credits)
At least 3 credits each must come from the Diversity (D) and from the Global Perspectives (G) categories.

  - Diversity (D)
  - Global Perspectives (G)
  - Foreign Language (F) **

CITIZENSHIP & RESPONSIBILITY (6 credits)
Minimum of 2 courses within C&R, with no more than one course attributed to the same program goal.

  - Citizenship (S)
  - Ethical Reasoning (E)
  - Critical Reasoning (R)

NATURAL WORLD & TECHNOLOGY (9 credits)
At least 6 credits must come from the Natural World (N) category.

  - Natural World (N)
    - (10 cr required by Biology major)
    - BIO 161 (4 cr)
    - CHM 121 (3 cr)
    - PHY 121 (3 cr)
  - Technology (T) ***

CREATIVITY & EXPRESSION (6 credits)
3 credits must come from the Literature (L) category and the other 3 credits from either Arts (A) or Creative (C).

  - Literature (L)
  - Arts (A)
  - Creative (C)

** Foreign Language only required for BA majors.
*** Technology only required for certain majors.

Free Electives (12–14 credits)
A minimum of 120 credits is required for graduation.

  - CHM 421 - Biochemistry Laboratory is a strongly recommended free elective.

MAJOR REQUIREMENTS (59–61 credits)

Biology Requirements (32 cr.)
Core Courses:

  - BIO 161 - Princ. Bio: Cell Structure & Function (4) (see gen ed Category N)
  - BIO 162 - Princ. Bio: Organismal
  - DIVERSITY (4)
  - BIO 220 - Microbiology (4)
  - BIO 260 - Genetics (4)
  - BIO 385 - Cell Biology (3)
  - BIO 418 - Molecular Biology (3)
  - BIO 461 - Techniques in Biotechnology (3)
  - BIO 499 - Capstone Seminar in Biology (1)

Physiology elective (4 cr.) choose one:

  - BIO 350 - Human Physiology (4) OR
  - BIO 351 - Animal Physiology (4)

Experiential Requirement (3 cr)

  - BIO 397 - Intro to Research (3) OR
  - BIO 391 - Internship (3)

Additional Biology Electives (3 cr.)
(Only 3 credits of internship/research may be used here.)

  - BIO 490 - Virology
  - BIO 499 - Immunology

COGNATE COURSES REQUIRED FOR THE BIOLOGY MAJOR

Chemistry Requirements (19–20 cr.)

  - CHM 121 - Chemical Bonding (Cat. N) with
  - CHM 125 lab IB (1)
  - CHM 122 - Chemical Dynamics (3) with
  - CHM 126 lab IIIB (1)
  - CHM 221 - Organic Chemistry I (3) with
  - CHM 225 lab IIIB (1)
  - CHM 222 - Organic Chemistry II (3) with
  - CHM 226 lab IVB (1)
  - CHM 301 - Biochemistry I (3)

Choose one of the following:

  - CHM 420 - Biochemistry II (3) OR
  - CHM 371 - Analytical Chemistry (4) OR
  - CHM XXX - Forensic Chemistry (4)

Physics Requirements (5 cr.)

  - PHYS 121 - Introductory Physics I (Cat. N)
  - PHYS 123 - Physics I lab (1)
  - PHYS 122 - Introductory Physics II (3)
  - PHYS 125 - Physics II lab (1)

Math Requirements (3–4 cr.)

  - MAT 211 (see Quantitative gen ed)
  - MAT 117 - Applied Statistics (3) OR
  - MAT 217 - Statistics I (4)

REVISED October 2018