



Biology, B.S. *major*

Cellular and Molecular Emphasis (Optional)

Required Credits: 72
 Required GPA: 2.25

I REQUIRED BIOLOGY CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

III CAPSTONE EXPERIENCE

This requirement may be completed in one of the following ways: A OR B

A.
 COMPLETE A TWO-SEMESTER, 4 CREDIT RESEARCH COURSE (2 CREDITS PER SEMESTER)--ADVANCED LABORATORY PROJECTS IN BIOLOGY (BIOL 4894 AND BIOL 4895) OR ADVANCED FIELD PROJECTS IN BIOLOGY (BIOL 4896 AND BIOL 4897)

B.
 COMPLETE SOME OTHER CAPSTONE EXPERIENCE APPROVED BY YOUR BIOLOGY ACADEMIC ADVISOR AND THE DEPARTMENT

V REQUIRED COURSES IN RELATED FIELDS

A. SELECT 1 OF THE FOLLOWING GROUPS:

GROUP 1:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

GROUP 2:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)

B. SELECT 1 OF THE FOLLOWING COURSES:

- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

C. SELECT 1 OF THE FOLLOWING GROUPS:

GROUP 1:

- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)

GROUP 2:

- PHYS 1101 General Physics I (4 credits)
- PHYS 1102 General Physics II (4 credits)

D. COMPLETE THE FOLLOWING 4 COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)

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 CELLULAR AND MOLECULAR BIOLOGY FIELD OF EMPHASIS REQUIREMENTS

I. REQUIRED EMPHASIS CORE COURSES
 COMPLETE THE FOLLOWING COURSES:

- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3710 Microbiology (4 credits)

II. REQUIRED EMPHASIS ELECTIVES
 SELECT 8 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- BIOL 4270 Histology (4 credits)
- BIOL 4360 Developmental and Tumor Biology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)