

# Bachelor of Arts with a major in Biology

## 2020-2021 Checklist

### University Core Requirements

#### Communication (English Composition):

- ENGL 1310: College Writing I

#### Creative Arts:

- Choose from approved list

#### Language, Philosophy, & Culture:

- Choose from approved list

#### American History to 1865:

- HIST 2610

#### American History since 1865:

- HIST 2620

#### Federal Government/Political Science:

- PSCI 2305

#### State Government/Political Science:

- PSCI 2306

#### Social & Behavioral Sciences:

- Choose from approved list

### College of Science Requirements

#### Algebra Proficiency

To be admitted into the College of Science, students must complete College Algebra with a grade of C or higher **OR** demonstrate proficiency through a math placement exam.

#### Foreign Language Requirement Options

**Must demonstrate proficiency at the 2050 level in one language:**

Arabic, Chinese, French, German, Italian, Japanese, Latin, Russian, Spanish, or American Sign Language

OR

#### COS Breadth

Students can complete 12 hours from subjects outside of the College of Science. (*May not also apply to University Core*)

### Foundation Courses for Major

Complete the following courses with a grade of C or higher:

- BIOL 1710: Biology for Science Majors I
- BIOL 1720: Biology for Science Majors II
- BIOL 1760: Biology for Science Majors Laboratory
- One of the following sophomore level biology options:
- BIOL 2041 & 2042: Microbiology & Laboratory
  - BIOL 2140: Principles of Ecology
  - BIOL 2241: Biology of Higher Plants
  - BIOL 2251: Biodiversity and Conservation of Animals
  - BIOL 2302 & 2312: Human Anatomy & Physiology II & Laboratory
- CHEM 1410 & 1430: General Chemistry I & Laboratory
- CHEM 1420 & 1440: General Chemistry II & Laboratory
- CHEM 2370 & 3210: Organic Chemistry I & Laboratory
- MATH 1680: Elem. Probability & Statistics **OR**
- MATH 1650: Pre-Calculus
- Minimum of 2.50 GPA in the above courses

### Required Courses for Degree

Complete the following courses with a grade of C or higher:

- Second sophomore level biology option (choose one that is different than your foundation course selection):
- BIOL 2041 & 2042: Microbiology & Laboratory
  - BIOL 2140: Principles of Ecology
  - BIOL 2241: Biology of Higher Plants
  - BIOL 2251: Biodiversity and Conservation of Animals
  - BIOL 2302 & 2312: Human Anatomy & Physiology II & Laboratory
- BIOL 3451 & 3452: Genetics & Laboratory
- BIOL 3510 & 3520: Cell Biology & Laboratory
- One of the following advanced physiology options:
- BIOL 3800 & 4510: Animal Physiology & Laboratory
  - BIOL 4501 & 4502: Bacterial Diversity & Physiology & Laboratory
  - BIOL 4503 & 4504: Plant Physiology & Laboratory
  - BIOL 4505 & 4510: Comparative Animal Physiology & Laboratory
- One of the following Advanced Biology Elective options:
- 1 advanced biology course with its laboratory and 1 advanced biology course without laboratory
- OR
- 3 advanced biology courses without laboratories
- CHEM 2380 & 3220: Organic Chemistry II & Laboratory
- One of the following advanced chemistry options:
- CHEM 3451 & 3452: Quantitative Analysis & Laboratory
  - CHEM 3530: Physical Chemistry for Life Science
  - BIOC 3621 & 3622: Principles of Biochemistry & Laboratory
  - BIOC 4540 and BIOC 4550: Biochemistry I & II

### Required Courses for Degree

- PHYS 1410 & 1430: General Physics I & Laboratory
- PHYS 1420 & 1440: General Physics II & Laboratory
- TECM 2700: Technical Writing (*C or higher if also used for core*)
- MATH 1680: Elem. Probability & Statistics **OR**
- MATH 1710: Calculus I

### Minor Requirements

All Biology majors are awarded a Chemistry minor after completing their required chemistry courses within their degree requirements. Students can choose to add additional minors.

### Additional Requirements

- Minimum of 120 total hours
- Minimum of 36 advanced hours
- Check with an advisor to see if electives are necessary to reach minimums

College of Science Advising Center

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