Biology BS Curriculum Checklist
2020-2021

Completed

Required Courses
☐ BIOL 2000 Molecules & Cells (fall/spring)
☐ BIOL 2010 Ecology & Evolution (fall/spring)
☐ BIOL 2040 Investigations in Molecular Cell Biology Lab (fall/spring)  
   NOTE: Taken after BIOL 2000

Category A: Genetics & Genomics
One from the following:
- BIOL 3150 Introduction to Genomics (spring) – 4 cr
- BIOL 3050 Genetics (fall/spring) – 4 cr
- BIOL 3060 Introduction to Genetics (summer only)

Category B: Physiology & Organismal Biology
One from the following:
- BIOL 3030 Introduction to Physiology (fall)
- BIOL 3210 Plant Biology (anticipated offering in spring)
- BIOL 4110 Ornithology (not offered in 2020-2021)
- BIOL 4330 Human Physiology with Lab (spring) – 4 cr
- BIOL 4450 Behavioral Ecology (spring)

One Advanced Experience Course (see listing on back page)
   NOTE: Undergraduate Research can be used to satisfy the Advanced Experience requirement only if the student completes two semesters.

Complete one of the following concentrations with required biology electives noted below and on the reverse page. See the concentration flyers for a more detailed list. BS degree in Biology requires a minimum of 30 credits for all biology courses.

1. Microbiology
   - BIOL 4140 Microbiology
   - Choose four courses from the concentration list

2. Cell Biology and Development
   - BIOL 3040 Cell Biology (Fall and Spring)
   - BIOL 4320 Developmental Biology (Fall) OR BIOL 4050 Evolution and Development (Fall)
   - Choose three courses from the concentration list

3. Physiology & Organismal Biology
   - BIOL 3030 Introduction to Physiology (Spring)
   - OR BIOL 4330 Human Physiology (Spring)
   - Choose five courses from the concentration list

4. Genetics and Genomics
   - BIOL 3050 Genetics (Fall and Spring)
   - Choose five courses from the concentration list

5. General Biology
   - Choose Biology courses 3000 level or above to bring the total Biology credits to 30

NOTE: This option is the default for anyone not completing a concentration

Co-requisites

Chemistry
- General Chemistry 1 & 2 with Labs (CHEM 1109-1110; 1111-1112)
- Organic Chemistry 1 with Lab (CHEM 2231-2232)
- Organic Chemistry 2 with Lab (CHEM 2233-2234) OR Biological Chemistry (BIOL 4350)*/ Bioch (CHEM 4461)*

Mathematics
- Calculus 1 (MATH 1100) or equivalent

Additional Quantitative courses
- Choose three from following list
  - Calculus 2 (MATH 1101)
  - MATH courses 2000 level or higher
  - Statistics (BIOL 2300, ECON 1151, MATH 4427)**
  - Intro Physics 1 (calculus-based) with Lab (PHYS 2100)
  - Intro Physics 2 (calculus-based) with Lab (PHYS 2101)
  - Population Genetics (BIOL 4250)* (not offered in 20-21)
  - Experimental Methods in Organismal Biology (BIOL3140)
  - Computer Science 1, 2 (CSCI 1101-1102)
  - Data Science (CSCI2290)
  - Database Systems and Applications (CSCI2257)
### BIOLOGY ELECTIVES OFFERED IN OTHER DEPARTMENTS

1. 2, 3 Biochemistry 1 (CHEM 4461), Biochemistry 2 (CHEM 4462), Agroecology (EESC 3310)

### NOTES

1. Microbiology concentration course
2. Cell Biology and Development concentration course
3. Physiology and Organismal Biology concentration course
4. Genetics and Genomics concentration course

* Can be applied to either Biology electives credits or the quantitative requirement (not both)

** Statistics is applied to the quantitative requirement and to the Genes and Genomes concentration, but is not applied to the Biology elective credits