



# Springfield College Sequencing Guide Biology Major (BIOL) ▼ 2026-2027

Requirements are subject to change and may not be offered when listed. Use your online degree audit to verify your progress with your advisor.

## Core Curriculum Requirements, Electives, and College Requirements

In addition to the major requirements listed below, you will need to fill the following Core Curriculum categories:

- |  |                                |                                |                              |
|--|--------------------------------|--------------------------------|------------------------------|
| • 100-level Wellness & Physical (1 cr) | • Literature (3 cr)            | • Aesthetic Expression (3 cr)  | • Themed Explorations (9 cr) |
| • 200-level Wellness & Physical (1 cr) | • Spiritual and Ethical (3 cr) | • Historical and Social (3 cr) | ➢ 3 different prefixes       |
| • 300-level Wellness & Physical (1 cr) |                                |                                | ➢ 1 Global course            |

This major typically requires 67 to 69 credits to complete. In addition to the Core Curriculum and major requirements listed, you must complete:

- **18-20 elective credits or more** to total at least 120 credits
- **A minimum cumulative GPA** of 2.000 or higher
- **The residency requirement**—45 credits taken at Springfield College (including 15 of your last 30)

## BIOL Major Requirements – Typical First-Year Schedule

### Fall:

SCSM 101, Springfield College Seminar (Core requirement – 3 cr)  
 ENGL 113, College Writing I (Core requirement – 3 cr)  
 BIOL 121, Introductory Molecular and Cellular Biology (3 cr – also fills Scientific Reasoning Core)  
 BIOL 123, Introduction to Bench Research (1 cr – also fills Scientific Reasoning Core)

*If you have a strong algebra background you should also take:*

CHEM 121, General Chemistry I (3 cr)  
 CHEM 123, General Chemistry I Laboratory (1 cr)

*If you don't have a strong algebra background and were not recommended for level 4 MATH, take MATH 90, 105, or 115. Then take CHEM 121-124 second year.*

Plus other Core and major requirements, or electives to total approximately 15 credits

### Spring:

ENGL 114, College Writing II (Core requirement – 3 cr)  
 BIOL 122, Introductory Evolutionary, Organismal, and Ecological Biology (3 cr)  
 BIOL 124, Introduction to Field Research (1 cr)

*If CHEM 121 and 123 were completed:*

CHEM 122, General Chemistry II (3 cr)  
 CHEM 124, General Chemistry II Laboratory (1 cr)

Plus other Core and major requirements, or electives to total approximately 30 credits for the year

### Fall or Spring:

First or both of two required MATH courses: Choose from MATH 125, 140, 142, 215, or CISC 125 (3 cr; one also fills Quantitative Reasoning Core)

## BIOL Major Requirements – Typical Second-Year Schedule

### Fall:

BIOL 175, Molecular and Cellular Biology (3 cr)  
 BIOL 282, Seminar in Science as a Profession (1 cr)  
 CHEM 221, Organic Chemistry I (3 cr)  
 CHEM 223, Organic Chemistry I Laboratory (1 cr)  
*If you didn't take CHEM 121-124 your first year, you need to take it second year and delay CHEM 221-224 to your third. If you completed MATH 125, 131, or 140, take PHYS 210.*

Plus other Core and major requirements, or electives to total approximately 15 credits

### Spring:

BIOL 283 Seminar in the Scientific Method (1 cr)  
 BIOL 310 Evolution (3 cr)  
 CHEM 222, Organic Chemistry II (3 cr)  
 CHEM 224, Organic Chemistry II Laboratory (1 cr)  
 Plus other Core and major requirements, or electives to total approximately 30 credits for the year

### Fall or Spring:

Second of two required MATH courses: Choose from MATH 125, 140, 142, or 215 (3 cr)  
 \*If CHEM 121-124 is not complete in your first year, these courses may be taken in the second-year.

## BIOL Major Requirements – Typical Third-Year Schedule

### Fall:

PHYS 210, General Physics I (with PHYS 212, 4 cr) or  
 PHYS 310, Physics I with Calculus (with PHYS 212, 4 cr)  
 Plus other Core and major requirements, or electives to total approximately 15 credits

### Spring:

PHYS 211, General Physics II (with PHYS 213, 4 cr) or  
 PHYS 311, Physics II with Calculus (with PHYS 213, 4 cr)  
 Plus other Core and major requirements, or electives to total approximately 30 credits for the year

## BIOL Major Requirements – Typical Fourth-Year Schedule

### Fall or Spring:

BIOL 482, Natural Science Capstone (3 cr – must be taken final year in residence)  
Plus other Core and major requirements, or electives to total 30 credits for the year

## Additional BIOL Major Requirements – Flexible Timing

Based on the criteria in each category, select a total of 5 courses, with labs, if applicable.

**Advanced Content Selectives:** Select ONE course with lab, (4 cr).

BIOL 260, General Ecology (3 cr fills WAC) and BIOL 261, General Ecology Laboratory (1 cr)  
BIOL 264, Flora and Fauna of New England (3 cr) and BIOL 266, Flora and Fauna of New England Laboratory (1 cr)  
BIOL 270, Plant Biology (3 cr) and BIOL 271, Plant Biology Laboratory (1 cr)  
BIOL 380, Genetics (3 cr fills WAC) and BIOL 381, Genetics Laboratory (1 cr)

**Additional Advanced Content Selectives:** Select ONE course (with lab, if applicable, 3-4 cr).

BIOL 214, Introduction to Medical Microbiology (3 cr)  
BIOL 230, Animal Biology (3 cr fills WAC)  
BIOL 250, Human Anatomy and Physiology I (3 cr) and BIOL 252, Human A & P I Lab (1 cr)  
BIOL 316, Immunology (3 cr – fills WAC)  
BIOL 330, Basis of Disease (no lab, 3 cr) – \*Cannot be taken if taken for Novel Research Selective  
CHEM 331, Biological Chemistry (3 cr)

**Novel Research:** Select TWO courses (with labs, if applicable, 8 cr).

BIOL 315, General Microbiology (3 cr) and BIOL 317, General Microbiology Laboratory (1 cr)  
BIOL 320, International Tropical Field Research (4 cr)  
BIOL 330, Basis of Disease (3 cr) and BIOL 332, Basis of Disease Lab (1 cr)  
BIOL 408, Research Methods (3 cr) and BIOL 409, Research Methods Laboratory (1 cr)  
BIOL 420, Cell Physiology (3 cr) and BIOL 421, Cell Physiology Laboratory (1 cr)

**Additional Selectives:** Select one additional course not previously used as a selective (with lab if applicable, 3-4 cr).

BIOL 214, Introduction to Medical Microbiology (3 cr)  
BIOL 230, Animal Biology (3 cr)  
BIOL 250, Human Anatomy and Physiology I (3 cr) and BIOL 252, Human Anatomy and Physiology I Laboratory (1 cr)  
BIOL 260, General Ecology (3 cr) and BIOL 261, General Ecology Laboratory (1 cr)  
BIOL 264, Flora and Fauna of New England (3 cr) and BIOL 266 - Flora and Fauna of New England Laboratory Credits: 1  
BIOL 270, Plant Biology (3 cr) and BIOL 271, Plant Biology Laboratory (1 cr)  
BIOL 294, Undergraduate Mentored Research (1-2 cr, must earn 4 credits to meet requirement or substitute for a course)  
BIOL 315, General Microbiology (3 cr) and BIOL 317, General Microbiology Laboratory (1 cr)  
BIOL 316, Immunology (3 cr)  
BIOL 320, International Tropical Field Research (4 cr)  
BIOL 330, Basis of Disease (3 cr) and BIOL 332, Basis of Disease Laboratory (1 cr)

*NOTE: may take BIOL 330 without the lab*

BIOL 380, Genetics (3 cr) and BIOL 381, Genetics Laboratory (1 cr)  
BIOL 408, Research Methods (3 cr) and BIOL 409, Research Methods Laboratory (1 cr)  
BIOL 420, Cell Physiology (3 cr) and BIOL 421, Cell Physiology Laboratory (1 cr)  
BIOL 486, Biology Internship / Field Experience: (1-6 cr, need 3 cr to substitute for a course)  
CHEM 331, Biological Chemistry (3 cr)

## BIOL Major - Program Standards

Program standards for the BIOL major include, but are not limited to:

- A grade of C- or better in all courses required for the major, including selectives