



Springfield College Sequencing Guide Biology Major ▼ 2017-2018

If you are a Biology major who matriculated to Springfield College in 2017-2018, use this as a guide for sequencing your courses. Requirements listed on this guide are subject to change and may not be offered when listed—use your online degree audit for the most accurate information. Always confirm your plans with your advisor, and consult your advisor or chairperson if you have any questions.

BIOL Major – Typical First-Year Schedule	
<p>Fall: ENGL 113, College Writing I (3 cr – fills half College Writing GenEd) BIOL 121, Bioscience I (3 cr – also fills Natural Sciences GenEd) BIOL 123, Bioscience I Laboratory (1 cr – also fills Natural Sciences GenEd)</p> <p><i>If you have a strong algebra background you should also take:</i> CHEM 121, General Chemistry I (3 cr) CHEM 123, General Chemistry I Laboratory (1 cr)</p> <p><i>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.</i></p> <p>Plus GenEds, major requirements with flexible timing, or electives (as applicable) to total approximately 15 credits</p>	<p>Spring: ENGL 114, College Writing II (3 cr – fills half College Writing GenEd) BIOL 122, Bioscience II (3 cr) BIOL 124, Bioscience II Laboratory (1 cr)</p> <p><i>If CHEM 121 and 123 were completed:</i> CHEM 122, General Chemistry II (3 cr) CHEM 124, General Chemistry II Laboratory (1 cr)</p> <p>Plus GenEds, major requirements with flexible timing, or electives (as applicable) to total 30 credits for the year</p>
<p>Fall or Spring: HLTH 100, Wellness: A Way of Life (3 cr – fills Health and Wellness GenEd) First or both of two required MATH courses: Choose from MATH 125, 131, 140, 142, or 215 (3 cr; one also fills Quantitative Reasoning GenEd) Computer Applications GenEd</p>	

BIOL Major – Typical Second-Year Schedule	
<p>Fall: CHEM 221, Organic Chemistry I (3 cr) CHEM 223, Organic Chemistry I Laboratory (1 cr)</p> <p><i>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 and 211 this year in place of CHEM 221-224.</i></p> <p>Plus GenEds, major requirements with flexible timing, or electives (as applicable) to total approximately 15 credits</p>	<p>Spring: CHEM 222, Organic Chemistry II (3 cr) CHEM 224, Organic Chemistry II Laboratory (1 cr) Plus GenEds, major requirements with flexible timing, or electives (as applicable) to total 30 credits for the year</p>
<p>Fall or Spring: BIOL 260, General Ecology (3 cr) BIOL 261, General Ecology Laboratory (1 cr) BIOL 270, Plant Biology (3 cr) BIOL 271, Plant Biology Laboratory (1 cr) <i>If not already completed, second of two required MATH courses: Choose from MATH 125, 131, 140, 142, or 215 (3 cr)</i></p>	

BIOL Major – Typical Third-Year Schedule

Fall:

PHYS 210, General Physics I (with laboratory, 4 cr)
Plus GenEds, major requirements with flexible timing, or
electives (as applicable) to total approximately 15 credits

Spring:

PHYS 211, General Physics II (with laboratory, 4 cr)
Plus GenEds, major requirements with flexible timing, or
electives (as applicable) to total 30 credits for the year

Fall or Spring:

BIOL 315, General Microbiology (3 cr – also fills half of WAC GenEd)
BIOL 317, General Microbiology Laboratory (1 cr)
BIOL 380, Genetics (3 cr – also fills half of WAC GenEd)
BIOL 381, Genetics Laboratory (1 cr)

BIOL Major – Typical Fourth-Year Schedule

Fall or Spring:

BIOL 482, Seminar in Biology (3 cr – must be taken final semester in residence)
Plus any outstanding major requirements, GenEds, or electives to total a minimum of 120 credits for your career

Additional BIOL Requirements – Flexible Timing

You must complete **three** of the following selectives—with labs, if applicable (**9-12 credits**). Check prerequisites when planning options.

BIOL 230, Animal Biology (3 cr)
BIOL 250, Human Anatomy and Physiology I (3 cr)
BIOL 252, Human Anatomy and Physiology I Laboratory (1 cr)
BIOL 251, Human Anatomy and Physiology II (3 cr)
BIOL 253, Human Anatomy and Physiology II Laboratory (1 cr)
BIOL 264, Flora and Fauna of New England (3 cr)
BIOL 266, Flora and Fauna of New England Laboratory (1 cr)
BIOL 310, Evolution (3 cr)
BIOL 311, Human Histology (3 cr)
BIOL 312, Human Histology Laboratory (1 cr)
BIOL 316, Virology and Immunology (3 cr)
BIOL 341, Developmental Biology (3 cr)
BIOL 408, Research Methods in Cell Biology (3 cr)
BIOL 409, Research Methods in Cell Biology Laboratory (1 cr)
BIOL 420, Cellular Physiology (3 cr)
BIOL 421, Cellular Physiology Laboratory (1 cr)
CHEM 331, Biological Chemistry (3 cr)
CHEM 341, Analytical Chemistry (2 cr)
CHEM 342, Analytical Chemistry Laboratory (2 cr)
CHEM 351, Physical Chemistry with Biological Applications (3 cr)
CHEM 352, Physical Chemistry Laboratory (1 cr)
ENVS 120, Foundations of Sustainability (3 cr – also fills Social Justice GenEd)

BIOL 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

GenEd Requirements, Electives, and College Requirements

This major typically requires 66 to 69 credits to complete. In addition to the requirements previously listed, you must complete:

- **Additional GenEds:** Literary Studies, Visual/Performing Arts, Spiritual/Ethical Dimensions, Historical/Cultural Studies, Behavioral/Social Sciences, International/Multicultural Studies, and Physical Activity. If you don't take ENVS 120, you must also complete Social Justice.
- **12 to 18 elective credits or more** (depending on GenEds and selectives chosen) to total at least 120 credits
- A **minimum cumulative GPA** of 2.000 or higher
- The **residency requirement**—60 credits taken at Springfield College (including 15 of your last 30)