

# Biology, B.S.

## Pre-Professional Concentrations

### 2024–25 Catalog

This example plan is designed to provide a blueprint for students to complete their degrees within four years. It includes recommended sequences of courses. Individual plans will vary based on previously earned credit, such as Dual Enrollment and AP credit, as well as the student’s academic goals. Students will work with an academic advisor to develop a more individualized plan to complete their degree.

This example four-year plan is applicable to students admitted during the 2024–25 academic year.

Total Credits Required: 120 credits

Required GPA for Graduation: 2.0 (institutional)

Courses requiring a C or better are denoted with an asterisk (\*).

Legend is available on the last page of this document.

Year 1							
Fall				Spring			
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL 0001	First-Year Academic Seminar	1		MATH 1113*	Precalculus (pre-req to MATH 1261, MATH 1401, and PHYS 1112)	4	Core
ENGL 1101*	English Composition I (pre-req to ENGL 1102)	3	Core	ENGL 1102	English Composition II	3	Core
BIOL 1107* BIOL 1107L*	Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700)	4	Field	BIOL 1108* BIOL 1108L*	Principles of Biology II & Lab (pre-reqs to BIOL 2800 and 3700)	4	Field
CHEM 1211K*	Principles of Chemistry I & Lab (pre-req to CHEM 1212K and 3361)	4	Core + Cognate	CHEM 1212K*	Principles of Chemistry II & Lab	4	Core + Cognate
GC1Y 1000	Critical Thinking (student’s choice) (pre-req to GC2Y 2000)	3	Core				
<b>Total Semester Hours:</b>		<b>15</b>		<b>Total Semester Hours:</b>		<b>15</b>	
<b>Notes:</b>	ENGL 1101, ENGL 1102, MATH 1113, and GC1Y 1000 must be completed by 30 earned hours. First-Year Academic Seminar is a graduation requirement and impacts a student’s GPA; however, it does not count toward the minimum of 120 semester hours required for a degree. MATH 1113 or higher, passed with a C or better, is required as Core Math for biology majors.						

Year 2							
Fall				Spring			
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL 2100*	Genetics (pre-req to BIOL 3200)	4	Field	BIOL 2800*	Ecology	4	Field
CHEM 3361* CHEM 3361L*	Organic Chemistry I & Lab (pre-reqs to CHEM 3362)	4	Cognate	CHEM 3362* CHEM 3362L*	Organic Chemistry II & Lab (pre-reqs to CHEM 3711)	4	Elective
Core Humanities	Humanities and Ethics (student's choice)	3	Core	GC2Y 2000	Global Perspectives (student's choice)	4	Core
POLS 1101	American Government	3	Core	HIST 2111 or HIST 2112	The United States to 1877 or The United States Since 1877	3	Core
Gen Elective	Any general elective course	3	Elective				
<b>Total Semester Hours:</b>		<b>17</b>		<b>Total Semester Hours:</b>		<b>15</b>	
<b>Summer</b>	Consider study abroad over summer to complete requirements (e.g., GC2Y 2000)						
<b>Notes:</b>	BIOL 2100, BIOL 2800, and GC2Y 2000 must be taken between 30–59 earned hours. General electives can be in any discipline and any level (1000–4999).						

Year 3							
Fall				Spring			
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL 3200*	Cellular & Molecular Physiology	3	Major	BIOL 3000*	Seminar	2	Major
BIOL 3700*	Evolution	3	Major	BIOL 3400*	Organismal Physiology	3	Major
MATH 1261 or MATH 1401	Calculus I or Elementary Statistics	4 or 3	Core	CHEM 3711*	Biochemistry	3	Elective
PHYS 1111* PHYS 1111L*	Intro to Physics I & Lab (pre-reqs to PHYS 1112)	4	Cognate	PHYS 1112* PHYS 1112L*	Intro to Physics II & Lab	4	Field
Lang 1001*	World Language I (1001-level)	3	Elective	Lang 1002*	World Language II (1002-level)	3	Foreign Lang
<b>Total Semester Hours:</b>		<b>16–17</b>		<b>Total Semester Hours:</b>		<b>15</b>	
<b>Summer</b>	Consider completing capstone internship or study abroad. Consider internships, shadowing, and volunteering.						
<b>Notes:</b>	BIOL 3000: Seminar should be taken after at least 59 hours earned. Students must complete a world language course at the 1002 level or higher. Complete the WebCAPE exam to determine placement for first course.						

Year 4							
Fall				Spring			
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL Course*	3000- or 4000-level BIOL course	4	Major	BIOL Course*	3000- or 4000-level BIOL course	4	Major
BIOL Course*	3000- or 4000-level BIOL course	4	Major	BIOL Course*	3000- or 4000-level BIOL course	4	Major
Capstone*	Capstone (see Notes below)	3	Capstone	BIOL Course*	3000- or 4000-level BIOL course	4	Major
Core Social Science	Social Science (student's choice)	3	Core	Core Art	Fine Arts (student's choice)	3	Core
<b>Total Semester Hours:</b>		<b>14</b>		<b>Total Semester Hours:</b>		<b>15</b>	
<b>Notes:</b>	<p>Senior capstone can only be completed when 90 or more credit hours have been earned.            Capstone options: Course, internship, study abroad (with department chair approval), or research. Further information is available in the undergraduate catalog.            Begin applying to professional school programs during Year 4.</p>						

Legend	
<b>Area</b>	<b>This section of the plan references the area of the curriculum the course fulfills.</b>
Core	Core IMPACTS — coursework required for every student regardless of major, which includes the following areas: Institutional Priority (GC1Y 1000 and GC2Y 2000); <b>M</b> athematics and Quantitative Skills; <b>P</b> olitical Science and U.S. History; <b>A</b> rts, Humanities, and Ethics; <b>C</b> ommunicating in Writing; <b>T</b> echnology, Mathematics, and Sciences; and <b>S</b> ocial Sciences.
Field	Core Field of Study courses, part of each major's requirements. These courses prepare students for further study in their chosen major field. Field of Study courses are specific to each major program.
Major	Biology Major requirements
Cognate	Cognate courses are required courses within a student's curriculum. These courses are connected to the major but may be from other academic disciplines.
Elective	Course(s) a student selects. Hours are needed to meet overall graduation hours. Number of electives varies per major. Electives can be used toward professional school pre-requisites, GC Journeys, or minors, or to take courses of interest.