

This course plan is a recommended sequence for this major. Courses designated as critical (!) may have a deadline for completion and/or affect time to graduation. Please see the Program Notes section for details regarding "critical courses" for this particular Program of Study.

Critical	Course Subject and Title	Credit Hours	Min. Grade ¹	Major GPA ²	Code	Prerequisites	Notes
Semester One (17-18 Credit Hours)							
!	ENGL 101 Critical Reading and Composition	3	C		CC-CMW		
	MATH 122 Calculus for Bus. Admin. & Soc. Sci. or MATH 141 Calculus 1 ³	3-4			CC-ARP	MATH 111/111I/115 (MATH 122); MATH 115 (MATH 141); or Math placement test	
!	BIOL 101 & Lab – Biological Principles I or BIOL 102 & Lab – Biological Principles II	4	C		CC-SCI		
	CHEM 111 & Lab – General Chemistry I	4			PR	MATH 111, 115 or Math placement test	
	Foreign language ⁴ or other Carolina Core Requirement ⁵	3			CC-GFL		
Semester Two (17-18 Credit Hours)							
!	ENGL 102 Rhetoric and Composition	3			CC-CMW CC-INF	C or better in ENGL 101	
	MATH 142 Calculus II or MATH 170 Finite Mathematics or MATH 172 Math. Modeling for the Life Sciences ³	3-4			CC-ARP	MATH 141 (MATH 142); MATH 111/111I/112 or Math placement test (MATH 170); MATH 122 or 141 (MATH 172)	
!	BIOL 101 & Lab – Biological Principles I or BIOL 102 & Lab – Biological Principles II	4	C		CC-SCI		
	CHEM 112 & Lab – General Chemistry II	4			PR	CHEM 111 or 141 and MATH 111, 115 or higher math; Prereq or Coreq: MATH 122, 141 or higher & CHEM 112L	
	Foreign language ⁴ or other Carolina Core Requirement ⁵	3			CC-GFL		
Semester Three (16-17 Credit Hours)							
	STAT 205 Elem. Stat. for the Biol. & Life Sciences	3			CR	MATH 111 or higher	
	BIOL 301 (& optional Lab) – Ecology & Evolution or BIOL 302 (& optional Lab)– Cell & Molecular Bio. or BIOL 303 Fundamental Genetics	3-4	C		MR/CC-INT	C or better in BIOL 101 and 102 or MSCI 311; Prereq. or Coreq: CHEM 333 (BIOL 302 only)	
	CHEM 333 & 331 Lab – Organic Chemistry I ⁶	4			PR	CHEM 112 or CHEM 142	
	Foreign language ⁴ or Carolina Core Requirement ⁵	3			CR/CC		
	Carolina Core Requirement ⁵	3			CC		
Semester Four (16-17 Credit Hours)							
	CSCE 102 General Applications Programming	3			CR		
	BIOL 301 (& optional Lab) – Ecology & Evolution or BIOL 302 (& optional Lab)– Cell & Molecular Bio. or BIOL 303 Fundamental Genetics	3-4	C		MR/CC-INT	C or better in BIOL 101 and 102 or MSCI 311; Prereq. or Coreq: CHEM 333 (BIOL 302 only)	
	CHEM 334 & 332 Lab – Organic Chemistry II ⁶	4			PR	CHEM 333 & 331 Lab	
	Social Science	3			CR		
	Carolina Core Requirement ⁵	3			CC		
Semester Five (15-16 Credit Hours)							
	BIOL 301 (& optional Lab) – Ecology & Evolution or BIOL 302 (& optional Lab)– Cell & Molecular Bio. or BIOL 303 Fundamental Genetics	3-4	C		MR/CC-INT	C or better in BIOL 101 and 102 or MSCI 311; Prereq. or Coreq: CHEM 333 (BIOL 302 only)	
	Physiology or Plant Biology course ⁷	3	C		MR		
	Cognate or Minor Course ⁸	3	C (minor)		PR		
	History ⁹	3			CR		
	Humanities or Fine Arts	3			CR		
Semester Six (15-16 Credit Hours)							
	Physiology or Plant Biology course ⁷	3	C		MR		
	Biological Sciences Elective (300-level and above) ¹⁰	3-4	C		MR		
	Cognate or Minor Course ⁸	3	C (minor)		PR		
	Cognate or Minor Course ⁸	3	C (minor)		PR		
	Carolina Core Requirement ⁵ or Approved Elective ¹¹	3			CC/PR		
Semester Seven (12-16 Credit Hours)							
	Biological Sciences Elective (500-level and above) ¹⁰	3-4	C		MR		
	Biological Sciences Elective (300-level and above) ¹⁰	3-4	C		MR		
	Cognate or Minor Course ⁸	3	C (minor)		PR		
	Carolina Core Requirement ⁵ or Approved Elective ¹¹	3			CC/PR		
Semester Eight (13 Credit Hours)							
	Biological Sciences Elective and lab (500-level and above) ¹⁰	4	C		MR		
	Minor Course ⁸ or Approved Elective ¹¹	3	C (minor)		PR		
	Minor Course ⁸ or Approved Elective ¹¹	3	C (minor)		PR		
	Carolina Core Requirement ⁵ or Approved Elective ¹¹ (only if needed to meet Carolina Core or hours to graduate)	3			CC/PR		

Graduation Requirements Summary

Minimum Total Hours	Minimum Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Institutional GPA
120	28	49-61	32-44	2.000

- Regardless of individual course grades, students must maintain a minimum 2.000 cumulative GPA.
- Some colleges require a minimum GPA for major courses. Courses indicated in this column are included in the major GPA for this program of study.
- Students who do not place into MATH 122 or 141 will be required to successfully complete the corresponding prerequisites before taking MATH 122 or 141. It is recommended that students take MATH 141 and 142. However, successful completion of MATH 122 and MATH 170 or 172 may be substituted.
- Students in the College of Arts and Sciences are required to demonstrate proficiency in one foreign language equivalent to the 122 course through course credit or the corresponding foreign language placement score.
- The [Carolina Core](#) provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
- CHEM 333, 331L, 334, and 332L may be used to fulfill 8 hours of the cognate. However, additional elective hours may be required to reach minimum hours to graduate.
- Physiology courses (3 credit hours)

Choose from the following:

BIOL 425* – Plant Form & Function (3) – <i>optional lab available</i>	BIOL 543 – Comparative Physiology (3) – <i>optional lab available</i>
BIOL 460 – Advanced Human Physiology (3) – <i>optional lab available</i>	BIOL 549* – Plant Physiology (4)
BIOL 465 – Domestic Animal Nutrition (3)	BIOL 643* – Advanced Microbiology (3)

Plant courses (3 credit hours)

Choose from the following:

BIOL 420 – Survey of the Plant Kingdom (3) – <i>optional lab available</i>	BIOL 527^ – The Spring Flora (4)
BIOL 425* – Plant Form & Function (3) – <i>optional lab available</i>	BIOL 528^ – The Summer Flora (4)
BIOL 523 – Plant Development (3) – <i>optional lab available</i>	BIOL 549* – Plant Physiology (4)
BIOL 524 – Mycology (4)	BIOL 643* – Advanced Microbiology (3)
BIOL 525 – Marine Plants (4)	BIOL 670 – Plant Ecology (4) – <i>optional lab available</i>
BIOL 526^ – The Fall Flora (4)	BIOL 671 – Plant Responses to the Environment (3)

*BIOL 425, 549, and 643 may ONLY be used for either the Physiology or Plant credit, NOT both.

^Only ONE of BIOL 526-528 may apply for major credit.

- The cognate is intended to support the course work in the major. The cognate must consist of twelve hours of courses at the advanced level, outside of, but related to the major. In place of a cognate, a student may choose a minor consisting of at least 18 credit hours of courses concentrated in one area that follow a structured sequence. All minor courses must be passed with a grade of C or higher. For B.S. degrees, grades of D are acceptable for completion of the cognate requirement. A second major eliminates the minor/cognate requirement.
- The College of Arts and Sciences requires one U.S. History and one non-U.S. History course, both of which must be chosen from the approved Carolina Core GHS courses. Whichever is not fulfilled through the Carolina Core GHS requirement must be fulfilled through this college requirement.
- In addition to the required 15 hours of major coursework, Biological Science majors must select 13 hours of Biological Sciences courses 300-level or higher for a total of 28 major hours. At least three courses applied toward the major must have an associated laboratory. No more than three credits of 398/399 may be applied toward the major. Two of 301, 302, or 303 must be completed to advance to 400-600 level courses. At least two courses must be at the 500 level or above.
- No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on inapplicable courses can be obtained from the College of Arts and Sciences.

Program Notes:

- ENGL 101 and ENGL 102 must be completed in the student's first 60 semester hours of work in order for these courses to be credited toward graduation. All biological sciences majors must earn at least a C in BIOL 101 and BIOL 102 to progress in the major.
- Biological Sciences majors may enroll in a biological sciences major course a maximum of twice to earn the required grade of C or higher. For the purposes of this standard of progression, withdrawal with a **W** does not constitute enrollment.
- It is recommended that students who are pursuing a pre-professional track should also complete PHYS 201 and Lab and PHYS 202 and Lab, which may be applied toward the cognate.
- All undergraduate students must take a 3-credit course or its equivalent with a passing grade that covers the founding documents. This course may fulfill any requirement in the program of study. Courses that meet this requirement are listed in the academic bulletin.
- The last 30 credit hours toward your degree must be earned in residence at the University of South Carolina-Columbia.

University Requirements: Bachelor's degree-seeking students must meet Carolina Core (general education) requirements. For more information regarding these requirements, please visit the [Carolina Core](#) page on the University website.

Codes:	
CC	Carolina Core
CC-AIU	Carolina Core-Aesthetic and Interpretive Understanding
CC-ARP	Carolina Core-Analytical Reasoning and Problem-Solving
CC-CMS	Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component
CC-CMW	Effective, Engaged, and Persuasive Communication: Written Component
CC-GFL	Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language
CC-GHS	Carolina Core – Historical Thinking
CC-GSS	Carolina Core – Social Sciences
CC-INF	Carolina Core – Information Literacy
CC-INT	Carolina Core – Integrative Course
CC-SCI	Carolina Core – Scientific Literacy
CC-VSR	Carolina Core – Values, Ethics, and Social Responsibility
CR	College Requirement
MR	Major Requirement
PR	Program Requirement

Disclaimer: Major maps are only a suggested or recommended sequence of courses required in a program of study. Please contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.