

Major Map: Biological Sciences Bachelor of Science (B.S.)

College of Arts and Sciences
Department of Biological Sciences
Bulletin Year: 2025-2026

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.

| ! | er One (17-18 Credit Hours)   |     |   |                  | Code             | Prerequisites  | Notes |
|---|---|-----|---|------------------|------------------|--|-------|
| ! |   |     |   | GPA <sup>2</sup> |                  |  |       |
|   | ENGL 101 Critical Reading and Composition   | 3   | С |                  | CC-CMW           |  |       |
|   | MATH 122 Calculus for Bus. Admin. & Soc. Sci.<br>or MATH 141 Calculus 1 <sup>3</sup>                | 3-4 |   |                  | CC-ARP           | C or better in MATH 111/111/115 (MATH 122);<br>C or better in MATH 112/115/116 (MATH 141);<br>or placement through the MAP |       |
|   | BIOL 101 & 101L Biological Principles I or BIOL 102 & 102L Biological Principles II                 | 4   | С |                  | CC-SCI           |  |       |
|   | CHEM 111 & 111L General Chemistry I   | 4   |   |                  | PR               | C or better in MATH 111/115/122/141 or higher math <i>or</i> placement through the MAP                                     |       |
|   | Foreign Language <sup>4</sup> <i>or</i> other Carolina Core Req. <sup>5</sup>                       | 3   |   |                  | CC-GFL           |  |       |
|   | er Two (17-18 Credit Hours)   |     |   |                  |                  |  |       |
|   | ENGL 102 Rhetoric and Composition   | 3   | С |                  | CC-CMW<br>CC-INF | C or better in ENGL 101  |       |
|   | MATH 142 Calculus II  | 3-4 |   |                  | CC-ARP           | C or better in MATH 141 (MATH 142); C or better  |       |
|   | or MATH 170 Finite Mathematics  |     |   |                  |                  | in MATH 111/111/122 or placement through   |       |
|   | or MATH 172 Math. Modeling for the Life Sci. <sup>3</sup>   |     |   |                  |                  | MAP (MATH 170); C or better in MATH 122 or<br>141 (MATH 172)   |       |
|   | BIOL 101 & 101L Biological Principles I or BIOL 102 & 102L Biological Principles II                 | 4   | С |                  | CC-SCI           |  |       |
|   | CHEM 112 & 112L General Chemistry II  | 4   |   |                  | PR               | C or better in CHEM 111, MATH  |       |
| ĺ | Foreign Language <sup>4</sup> <i>or</i> other Carolina Core Req. <sup>5</sup>                       | 3   |   |                  | CC-GFL           | 111/115/122/141 or higher math   |       |
|   | er Three (16-17 Credit Hours)   | Ü   |   |                  | 00 01 2          |  |       |
|   | STAT 205 Elem. Stat. for the Biol. & Life Sci.  | 3   |   |                  | CR               | C or better in MATH 111 or higher or placement   |       |
|   | e 1741 200 Elemi. Glat. for the Blei. a Elie Gel.   | Ü   |   |                  | 0.1              | through the MAP  |       |
| i | BIOL 301 (& optional Lab) Ecology & Evolution   | 3-4 | С |                  | MR/CC-           | C or better in BIOL 102 or MSCI 311 (BIOL 301);  |       |
|   | or BIOL 302 (& optional Lab) Cell & Molecular Bio.  |     |   |                  | INT              | C or better in BIOL 101 & in 102 or MSCI 311 &   |       |
|   | or BIOL 303 (& optional Lab) Fundamental  |     |   |                  |                  | in CHEM 112 or 142 (BIOL 302); C or better in  |       |
|   | Genetics  |     |   |                  |                  | BIOL 101 & 102 or in MSCI 311 (BIOL 303)   |       |
|   | CHEM 333 & 331L Organic Chemistry I   | 4   |   |                  | PR               | C or higher in CHEM 112 or 142   |       |
|   | Foreign Language <sup>4</sup> <i>or</i> Carolina Core Req. <sup>5</sup>                             | 3   |   |                  | CR/CC            |  |       |
|   | Carolina Core Requirement⁵  | 3   |   |                  | CC               |  |       |
|   | er Four (15-16 Credit Hours)  |     |   |                  |                  |  |       |
|   | CSCE 102 General Applications Programming   | 3   |   |                  | CR               |  |       |
|   | BIOL 301 (& optional Lab) Ecology & Evolution   | 3-4 | С |                  |                  | C or better in BIOL 102 <i>or</i> MSCI 311 ( <i>BIOL</i> 301);   |       |
|   | or BIOL 302 (& optional Lab) Cell & Molecular Bio.  |     |   |                  | INT              | C or better in BIOL 101 & in 102 or MSCI 311 &   |       |
|   | or BIOL 303 (& optional Lab) Fundamental  |     |   |                  |                  | in CHEM 112 or 142 (BIOL 302); C or better in  |       |
|   | Genetics<br>Social Science  | 0   |   |                  | CD               | BIOL 101 & 102 or in MSCI 311 (BIOL 303)   |       |
|   |   | 3   |   |                  | CR               |  |       |
|   | Carolina Core Requirement <sup>5</sup>  | 3   |   |                  | CC<br>PR         |  |       |
|   | Elective <sup>6</sup> er Five (15-16 Credit Hours)  | 3   |   |                  | PK               |  |       |
|   | BIOL 301 (& optional Lab) Ecology & Evolution   | 2.4 | C | 1                | MD/CC            | C or better in BIOL 102 or MSCI 311 (BIOL 301);  |       |
|   | or BIOL 302 (& optional Lab) Ecology & Evolution or BIOL 302 (& optional Lab) Cell & Molecular Bio. | 3-4 | С |                  | INT              | C or better in BIOL 101 & in 102 or MSCI 311 &   |       |
|   | or BIOL 303 (& optional Lab) Fundamental  |     |   |                  | IINI             | in CHEM 112 or 142 (BIOL 302); C or better in  |       |
|   | Genetics  |     |   |                  |                  | BIOL 101 & 102 or in MSCI 311 (BIOL 303)   |       |
|   | Physiology <i>or</i> Plant Biology course <sup>7</sup>  | 3   | С |                  | MR               | BIOL 101 & 102 of III MICOI OTT (BIOL 600)   |       |
|   | History <sup>8</sup>  | 3   |   |                  | CR               |  |       |
|   | Humanities or Fine Arts   | 3   |   |                  | CR               |  |       |
|   | Elective <sup>6</sup>   | 3   |   |                  | PR               |  |       |
|   | er Six (14-15 Credit Hours)   |     |   |                  |                  |  |       |
|   | Physiology <i>or</i> Plant Biology course <sup>7</sup>  | 3   | С |                  | MR               |  |       |
|   | Biological Sciences Elective <sup>9</sup>   | 3-4 | C |                  | MR               | See Bulletin listing   |       |
|   | Carolina Core Requirement <sup>5</sup> or Elective <sup>6</sup>                                     | 3   |   |                  | CC/PR            | 9  |       |
|   | Elective <sup>6</sup>   | 3   |   |                  | PR               |  |       |
|   | Elective <sup>6</sup>   | 2   |   |                  | PR               |  |       |
|   | er Seven (12-14 Credit Hours)   |     |   |                  |                  |  |       |
|   | Biological Sciences Elective <sup>9</sup>   | 3-4 | С |                  | MR               | See Bulletin listing   |       |
|   | Biological Sciences Elective <sup>9</sup>   | 3-4 | С |                  | MR               | See Bulletin listing   |       |
|   | Carolina Core Requirement <sup>5</sup> or Elective <sup>6</sup>                                     | 3   |   |                  | CC/PR            |  |       |
|   |   |     |   |                  | PR               |  |       |

| Semester Eight (13 Credit Hours)   |   |   |  |       |                      |  |
|--|---|---|--|-------|----------------------|--|
| Biological Sciences Elective and lab <sup>9</sup>                        | 4 | С |  | MR    | See Bulletin listing |  |
| Elective <sup>6</sup>  | 3 |   |  | PR    |                      |  |
| Elective <sup>6</sup>  | 3 |   |  | PR    |                      |  |
| Carolina Core Requirement <sup>5</sup> or Elective <sup>6</sup> (only if | 3 |   |  | CC/PR |                      |  |
| needed to meet CC or hours to graduate)                                  |   |   |  |       |                      |  |

**Graduation Requirements Summary** 

| Minimum Total<br>Hours | Minimum Major<br>Requirements Hours | College & Program Requirements Hours | Carolina Core Holirs |       |
|------------------------|-------------------------------------|--------------------------------------|----------------------|-------|
| 120                    | 28                                  | 48-60                                | 32-44                | 2.000 |

- 1. Regardless of individual course grades, students must maintain a minimum 2.000 cumulative GPA.
- 2. 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
- 4. 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.
- 5. The Carolina Core provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
- 6. 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. A student may choose an optional 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.
- 7. Physiology courses (3 credit hours): BIOL 425\*, 460, 465, 543, 549\*, 635.
  - Plant courses (3 credit hours): BIOL 420, 423, 425\*, 426, 523, 524, 525, 526^ (or 527^ or 528^), 549\*, 671.
    - \*BIOL 425 and 549 may ONLY be used for either the Physiology or Plant credit, NOT both.
    - ^Only ONE of BIOL 526-528 may apply for major credit.
- 8. 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.
- 9. 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 twelve credits of major courses must be at the 400-699 level.

## **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 <u>Carolina Core</u> page on the University website.

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

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.