

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 <sup>1</sup> | Major GPA <sup>2</sup> | Code             | Prerequisites   | Notes |
|--|--|--------------|-------------------------|------------------------|------------------|---|-------|
| <b>Semester One (16-17 Credit Hours)</b>   |  |              |                         |                        |                  |   |       |
| !  | ENGL 101 Critical Reading and Composition  | 3            | C                       |                        | CC-CMW           |   |       |
|  | MATH 141 Calculus I <sup>3</sup>   | 4            | C                       |                        | CC-ARP           | MATH 112, 115, 116 or Math placement test score   |       |
|  | STAT 515 Statistical Methods I <sup>4</sup>  | 3            | C                       |                        | MR               | MATH 122 or 141; or MATH 111 and any statistics course  |       |
|  | Foreign language <sup>5</sup> or other Carolina Core Requirement <sup>6</sup>                            | 3-4          |                         |                        | CC-GFL           |   |       |
|  | UNIV 101 The Student in the University or Carolina Core Requirement <sup>6</sup>                         | 3            |                         |                        | PR/CC            |   |       |
| <b>Semester Two (16 Credit Hours)</b>      |  |              |                         |                        |                  |   |       |
| !  | ENGL 102 Rhetoric and Composition  | 3            | C                       |                        | CC-CMW<br>CC-INF | C or better in ENGL 101   |       |
|  | MATH 142 Calculus II <sup>7</sup>  | 4            | C                       |                        | CC-ARP           | MATH 141  |       |
|  | STAT 516 Statistical Methods II ( <i>offered spring &amp; summer only</i> )                              | 3            | C                       |                        | MR               | STAT 515, 509, 512 or equivalent  |       |
|  | Carolina Core Requirement <sup>6</sup>   | 3            |                         |                        | CC               |   |       |
|  | Foreign language <sup>5</sup> or other Carolina Core Requirement <sup>6</sup>                            | 3            |                         |                        | CC-GFL           |   |       |
| <b>Semester Three (15-17 Credit Hours)</b> |  |              |                         |                        |                  |   |       |
|  | MATH 241 Vector Calculus   | 3            | C                       |                        | CR               | MATH 142  |       |
|  | STAT 511 Probability ( <i>cross-listed MATH 511</i> )  | 3            | C                       |                        | MR               | Prereq or Coreq: MATH 241   |       |
|  | CSCE 145 Algorithmic Design I or CSCE 206 Scientific Applications Programming                            | 3-4          | C                       |                        | CR               | Prereq or Coreq: MATH 111 or 115 ( <i>CSCE 145 only</i> ); MATH 122 or 141 ( <i>CSCE 206 only</i> ) |       |
|  | Foreign language <sup>5</sup> or Carolina Core Requirement <sup>6</sup>                                  | 3            |                         |                        | CR/CC            |   |       |
|  | Carolina Core Requirement <sup>6</sup>   | 3-4          |                         |                        | CC               |   |       |
| <b>Semester Four (15 Credit Hours)</b>     |  |              |                         |                        |                  |   |       |
|  | STAT 512 Mathematical Statistics ( <i>offered spring &amp; summer only</i> )                             | 3            | C                       |                        | MR               | STAT/MATH 511   |       |
|  | STAT Major Elective ( <i>500-level or above</i> )  | 3            | C                       |                        | MR               |   |       |
|  | Cognate or Minor Course <sup>8</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | History <sup>9</sup>   | 3            |                         |                        | CR               |   |       |
|  | Carolina Core Requirement <sup>6</sup>   | 3            |                         |                        | CC               |   |       |
| <b>Semester Five (15-16 Credit Hours)</b>  |  |              |                         |                        |                  |   |       |
|  | STAT 513 Theory of Statistical Inference ( <i>offered fall only</i> )                                    | 3            | C                       |                        | MR<br>CC-INT     | STAT 512  |       |
|  | STAT 540 Computing in Statistics ( <i>offered fall only</i> )  | 3            | C                       |                        | MR               | STAT 515, 509, 512, or equivalent   |       |
|  | Cognate or Minor Course <sup>8</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | Carolina Core Requirement <sup>6</sup>   | 3-4          |                         |                        | CC               |   |       |
|  | Social Science   | 3            |                         |                        | CR               |   |       |
| <b>Semester Six (15 Credit Hours)</b>      |  |              |                         |                        |                  |   |       |
|  | STAT Major Elective ( <i>500-level or above</i> )  | 3            | C                       |                        | MR               |   |       |
|  | Cognate or Minor Course <sup>8</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | ENGL 363 Introduction to Professional Writing or ENGL 462 Technical Writing or ENGL 463 Business Writing | 3            | C                       |                        | CR               | ENGL 101 & 102  |       |
|  | Carolina Core Requirement <sup>6</sup> or Approved Elective <sup>10</sup>                                | 3            |                         |                        | CC/PR            |   |       |
|  | Carolina Core Requirement <sup>6</sup> or Approved Elective <sup>10</sup>                                | 3            |                         |                        | CC/PR            |   |       |
| <b>Semester Seven (12 Credit Hours)</b>    |  |              |                         |                        |                  |   |       |
|  | STAT Major Elective ( <i>500-level or above</i> )  | 3            | C                       |                        | MR               |   |       |
|  | MATH 344 Applied Linear Algebra <sup>11</sup>  | 3            | C                       |                        | PR               | MATH 142  |       |
|  | Cognate or Minor Course <sup>8</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | Approved Elective <sup>10</sup>  | 3            |                         |                        | PR               |   |       |
| <b>Semester Eight (14 Credit Hours)</b>    |  |              |                         |                        |                  |   |       |
|  | Minor Course <sup>8</sup> or Approved Elective <sup>10</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | Minor Course <sup>8</sup> or Approved Elective <sup>10</sup>   | 3            | C ( <i>minor</i> )      |                        | PR               |   |       |
|  | Approved Elective <sup>10</sup>  | 3            |                         |                        | PR               |   |       |
|  | Approved Elective <sup>10</sup>  | 3            |                         |                        | PR               |   |       |
|  | Approved Elective <sup>10</sup>  | 2            |                         |                        | PR               |   |       |

## Graduation Requirements Summary

| Minimum Total Hours | Minimum Major Requirements Hours | College & Program Requirements Hours | Carolina Core Hours | Minimum Institutional GPA |
|---------------------|----------------------------------|--------------------------------------|---------------------|---------------------------|
| 120                 | 27                               | 47-59                                | 34-46               | 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 place into MATH 115 will be required to take it before proceeding to MATH 141 and should also register for STAT 201 in the first semester and STAT 515 in the second semester. Students who have previously completed STAT 509 will not be required to take STAT 515.
- Students who placed into MATH 141 and have no previous STAT course will take STAT 515 in the second semester.
- 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.
- If MATH 142 is not taken by the second semester, then it must be taken over the summer.
- 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.
- 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.
- Students who have previously completed MATH 544 will not be required to take MATH 344.

### Program Notes:

- Courses identified as "critical" must be completed in the student's first 60 semester hours of work in order for these courses to be credited toward graduation.
- 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.
- To be retained in the program, a student must obtain a grade of C or higher in at most two attempts in all mathematics, computer science, and statistics courses required for graduation.
- 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:        |  |
|---------------|--|
| <b>CC</b>     | Carolina Core  |
| <b>CC-AIU</b> | Carolina Core-Aesthetic and Interpretive Understanding                             |
| <b>CC-ARP</b> | Carolina Core-Analytical Reasoning and Problem-Solving                             |
| <b>CC-CMS</b> | Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component   |
| <b>CC-CMW</b> | Effective, Engaged, and Persuasive Communication: Written Component                |
| <b>CC-GFL</b> | Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language |
| <b>CC-GHS</b> | Carolina Core – Historical Thinking  |
| <b>CC-GSS</b> | Carolina Core – Social Sciences  |
| <b>CC-INF</b> | Carolina Core – Information Literacy   |
| <b>CC-INT</b> | Carolina Core – Integrative Course   |
| <b>CC-SCI</b> | Carolina Core – Scientific Literacy  |
| <b>CC-VSR</b> | Carolina Core – Values, Ethics, and Social Responsibility                          |
| <b>CR</b>     | College Requirement  |
| <b>MR</b>     | Major Requirement  |
| <b>PR</b>     | 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.