



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>  |   |              |                         |                        |                  |  |       |
|   | STAT 515 Statistical Methods I <sup>3</sup>   | 3            | C                       |                        | MR               | MATH 122 or 141; <i>or</i> MATH 111 <i>and</i> any statistics course   |       |
|   | MATH 141 Calculus I <sup>4</sup>  | 4            | C                       |                        | CC-ARP           | MATH 112, 115, 116 <i>or</i> Math placement test score   |       |
|   | ECON 221 Principles of Microeconomics   | 3            |                         |                        | CR               |  |       |
|   | Foreign language <sup>5</sup> <i>or</i> other Carolina Core Requirement <sup>6</sup>                | 3-4          |                         |                        | CC-GFL           |  |       |
|   | UNIV 101 The Student in the University <i>or</i> Carolina Core Requirement <sup>6</sup>             | 3            |                         |                        | PR/CC            |  |       |
| <b>Semester Two (16 Credit Hours)</b>     |   |              |                         |                        |                  |  |       |
| !   | ENGL 101 Critical Reading and Composition   | 3            | C                       |                        | CC-CMW           |  |       |
|   | STAT 516 Stat. Methods II ( <i>offered spring &amp; summer only</i> )                               | 3            | C                       |                        | MR               | STAT 515, 509, 512 <i>or</i> equivalent  |       |
|   | MATH 142 Calculus II <sup>7</sup>   | 4            | C                       |                        | CC-ARP           | MATH 141   |       |
|   | ECON 222 Principles of Macroeconomics <sup>8</sup>  | 3            | C                       |                        | PR               |  |       |
|   | Foreign language <sup>5</sup> <i>or</i> other Carolina Core Requirement <sup>6</sup>                | 3            |                         |                        | CC-GFL           |  |       |
| <b>Semester Three (15 Credit Hours)</b>   |   |              |                         |                        |                  |  |       |
|   | STAT 540 Computing in Statistics ( <i>offered fall only</i> )                                       | 3            | C                       |                        | MR               | STAT 515, 509, 512, <i>or</i> equivalent   |       |
|   | MATH 241 Vector Calculus  | 3            | C                       |                        | PR               | MATH 142   |       |
|   | STAT 511 Probability ( <i>cross-listed MATH 511</i> )   | 3            | C                       |                        | MR               | Prereq <i>or</i> Coreq: MATH 241   |       |
|   | ACCT 225 Introduction to Financial Accounting <sup>8</sup>  | 3            | C                       |                        | PR               |  |       |
|   | Foreign language <sup>5</sup> <i>or</i> Carolina Core Requirement <sup>6</sup>                      | 3            |                         |                        | CR/CC            |  |       |
| <b>Semester Four (15 Credit Hours)</b>    |   |              |                         |                        |                  |  |       |
| !   | ENGL 102 Rhetoric and Composition   | 3            | C                       |                        | CC-CMW<br>CC-INF | C <i>or</i> better in ENGL 101   |       |
|   | STAT 512 Mathematical Stat. ( <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               | See course listing in Bulletin.  |       |
|   | FINA 363 Introduction to Finance <sup>8</sup>   | 3            | C                       |                        | PR               | ECON 221, ACCT 225, & 3 hrs. Statistics at the 200-level.  |       |
|   | History <sup>9</sup>  | 3            |                         |                        | CR               |  |       |
| <b>Semester Five (15-16 Credit Hours)</b> |   |              |                         |                        |                  |  |       |
|   | STAT 513 Theory of Statistical Inference ( <i>offered fall only</i> )                               | 3            | C                       |                        | MR/CC-INT        | STAT 512   |       |
|   | FINA 469 Investment Analysis & Portfolio Mgmt. <sup>8</sup>   | 3            | C                       |                        | PR               | FINA 363   |       |
|   | Carolina Core Requirement <sup>6</sup>  | 3-4          |                         |                        | CC               |  |       |
|   | Carolina Core Requirement <sup>6</sup>  | 3            |                         |                        | CC               |  |       |
|   | Carolina Core Requirement <sup>6</sup>  | 3            |                         |                        | CC               |  |       |
| <b>Semester Six (12-14 Credit Hours)</b>  |   |              |                         |                        |                  |  |       |
|   | STAT 521 Applied Stochastic Processes ( <i>offered spring of odd years only</i> )                   | 3            | C                       |                        | MR               | C <i>or</i> better in STAT 511   |       |
|   | FINA 471 Derivative Securities <sup>8</sup>   | 3            | C                       |                        | PR               | FINA 363   |       |
|   | CSCE 145 Algorithmic Design I <i>or</i> CSCE 206 Scientific Applications Programming                | 3-4          | C                       |                        | CR               | Prereq <i>or</i> Coreq: MATH 111 <i>or</i> 115 ( <i>CSCE 145 only</i> ); MATH 122 <i>or</i> 141 ( <i>CSCE 206 only</i> ) |       |
|   | Carolina Core Requirement <sup>6</sup>  | 3-4          |                         |                        | CC               |  |       |
| <b>Semester Seven (15 Credit Hours)</b>   |   |              |                         |                        |                  |  |       |
|   | STAT 520 Forecasting & Time Series – <i>cross-listed: MGSC 520 (offered fall of odd years only)</i> | 3            | C                       |                        | MR               | STAT 516 <i>or</i> MGSC 391  |       |
|   | MATH 344 Applied Linear Algebra <sup>10</sup>   | 3            | C                       |                        | CR               | MATH 142   |       |
|   | ENGL 462 Technical Writing <i>or</i> ENGL 463 Business Writing                                      | 3            | C                       |                        | CR               | ENGL 101 & 102; & one course from ENGL 270-292 ( <i>ENGL 462 only</i> )  |       |
|   | Carolina Core Requirement <sup>6</sup> <i>or</i> Approved Elective <sup>11</sup>                    | 3            |                         |                        | CC/PR            |  |       |
|   | Approved Elective <sup>11</sup>   | 3            |                         |                        | PR               |  |       |
| <b>Semester Eight (14 Credit Hours)</b>   |   |              |                         |                        |                  |  |       |
|   | FINA 475 Fixed Income Securities <sup>8</sup>   | 3            | C                       |                        | PR               | FINA 469   |       |
|   | Carolina Core Requirement <sup>6</sup> <i>or</i> Approved Elective <sup>11</sup>                    | 3            |                         |                        | CC/PR            |  |       |
|   | Approved Elective <sup>11</sup>   | 3            |                         |                        | PR               |  |       |
|   | Approved Elective <sup>11</sup>   | 3            |                         |                        | PR               |  |       |
|   | Approved Elective <sup>11</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 placed into MATH 141 and have no previous STAT course will take STAT 515 in the second semester.
- 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 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 students are encouraged to take it over the summer.
- The minor in Risk Management and Insurance is required for the concentration in Actuarial Science.
- 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.
- Students who have previously completed MATH 544 will not be required to take MATH 344.
- 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:

- 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.
- 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.