



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               | C or higher in MATH 112, 115, 122 or 141; or both C or better in STAT 110 or higher and in MATH 111; or placement through the MAP                          |       |
|   | MATH 141 Calculus I <sup>4</sup>   | 4            | C                       |                        | CC-ARP           | C or better in MATH 112, 115, 116 or placement through the MAP   |       |
|   | ECON 221 Principles of Microeconomics  | 3            |                         |                        | CR               |  |       |
|   | Foreign language <sup>5</sup> or other Carolina Core Req. <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 101 Critical Reading and Composition  | 3            | C                       |                        | CC-CMW           |  |       |
|   | STAT 516 Stat. Methods II  | 3            | C                       |                        | MR               | C or better in STAT 515, 509, 512 or equivalent  |       |
|   | MATH 142 Calculus II <sup>7</sup>  | 4            | C                       |                        | CC-ARP           | C or better in MATH 141  |       |
|   | ECON 222 Principles of Macroeconomics <sup>8</sup>   | 3            | C                       |                        | PR               |  |       |
|   | Foreign language <sup>5</sup> or other Carolina Core Req. <sup>6</sup>   | 3            |                         |                        | CC-GFL           |  |       |
| <b>Semester Three (15 Credit Hours)</b>   |  |              |                         |                        |                  |  |       |
|   | STAT 540 Computing in Statistics ( <i>offered fall only</i> ) or STAT Major Elective <sup>9</sup> ( <i>500-level or above</i> )                                      | 3            | C                       |                        | MR               | C or better in STAT 301, 515, 509, 512, or equivalent ( <i>STAT 540 only</i> )   |       |
|   | MATH 241 Vector Calculus   | 3            | C                       |                        | CR               | C or better in MATH 142  |       |
|   | STAT 511 Probability ( <i>cross-listed MATH 511</i> )  | 3            | C                       |                        | MR               | Prereq or Coreq: MATH 241  |       |
|   | ACCT 225 Introduction to Financial Accounting <sup>8</sup>   | 3            | C                       |                        | PR               |  |       |
|   | Foreign language <sup>5</sup> or 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 or better in ENGL 101  |       |
|   | STAT 512 Mathematical Stat. ( <i>offered spring &amp; summer only</i> )  | 3            | C                       |                        | MR               | C or better in STAT/MATH 511   |       |
|   | STAT Major Elective <sup>9</sup> ( <i>500-level or above</i> ) (or STAT 542 Computing for Data Science— <i>offered spring only—if STAT 540 not taken in sem. 3</i> ) | 3            | C                       |                        | MR               | C or better in STAT 301, 509, 515, or equiv. ( <i>STAT 542 only</i> )  |       |
|   | FINA 363 Introduction to Finance <sup>8</sup>  | 3            | C                       |                        | PR               | C or better in ECON 221 or 224; C or better in ACCT 225 or RETL 261; C or better in STAT 201, 205, 206, 509, 511, 515, or MATH 511                         |       |
|   | History <sup>10</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        | C or better in STAT 512  |       |
|   | FINA 469 Investment Analysis & Portfolio Mgmt. <sup>8</sup>  | 3            | C                       |                        | PR               | C or better in FINA 363 & MGSC 291   |       |
|   | 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 or better in STAT 511  |       |
|   | FINA 471 Derivative Securities <sup>8</sup>  | 3            | C                       |                        | PR               | FINA 469   |       |
|   | CSCE 145 Algorithmic Design I or CSCE 106 Scientific Applications Programming  | 3-4          | C                       |                        | CR               | Prereq or Coreq: MATH 111 or 115 ( <i>CSCE 145 only</i> ); C or better in MATH 111 or higher or MAP score into MATH 115 or higher ( <i>CSCE 106 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               | C or better in STAT 516 or MGSC 391  |       |
|   | MATH 344 Applied Linear Algebra <sup>11</sup>  | 3            | C                       |                        | PR               | C or better in MATH 142  |       |
|   | 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 Elective <sup>12</sup>   | 3            |                         |                        | CC/PR            |  |       |
|   | Elective <sup>12</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> or Elective <sup>12</sup>   | 3            |                         |                        | CC/PR            |  |       |
|   | Elective <sup>12</sup>   | 3            |                         |                        | PR               |  |       |
|   | Elective <sup>12</sup>   | 3            |                         |                        | PR               |  |       |
|   | Elective <sup>12</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 McCausland 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.
- Statistics Major Elective
  - A student with an additional major in Mathematics may use STAT 511 [=MATH 511] to satisfy a major requirement in both programs.
  - Major credit will be given for only one of STAT 509 or STAT 515. Neither STAT 509 nor STAT 515 may be taken concurrently with, or after, STAT 513. A student who has started the Statistics major after taking STAT 512 may replace the STAT 509/STAT 515 requirement with an additional 3-hour Major Elective course chosen from STAT 500 or above.
  - A student with an additional major in Economics (in the McCausland College of Arts and Sciences) may use the combination of both ECON 436 and STAT 506 in place of the combination of both STAT 516 and one of the STAT 500 or above Major Elective courses for the Statistics major. In this case ECON 436 may satisfy a major requirement in both programs. ECON 436 and STAT 516 may not both be used to satisfy major requirements in Statistics.
  - Whichever of STAT 540 or STAT 542 was not used as a Major Course may be used as a Major Elective.
- The McCausland 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 McCausland College of Arts and Sciences. The McCausland 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 McCausland 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.
- 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-INF</b> | Carolina Core – Information Literacy                      |
| <b>CC-AIU</b> | Carolina Core-Aesthetic and Interpretive Understanding                             | <b>CC-INT</b> | Carolina Core – Integrative Course                        |
| <b>CC-ARP</b> | Carolina Core-Analytical Reasoning and Problem-Solving                             | <b>CC-SCI</b> | Carolina Core – Scientific Literacy                       |
| <b>CC-CMS</b> | Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component   | <b>CC-VSR</b> | Carolina Core – Values, Ethics, and Social Responsibility |
| <b>CC-CMW</b> | Effective, Engaged, and Persuasive Communication: Written Component                | <b>CR</b>     | College Requirement                                       |
| <b>CC-GFL</b> | Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language | <b>MR</b>     | Major Requirement   |
| <b>CC-GHS</b> | Carolina Core – Historical Thinking  | <b>PR</b>     | Program Requirement                                       |
| <b>CC-GSS</b> | 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.