

STATISTICS, B.S.

Degree Requirements (120 hours)

Program of Study

Requirements	Credit Hours
1. Carolina Core	34-46
2. College Requirements	15-19
3. Program Requirements	28-44
4. Major Requirements	27

Founding Documents Requirement

All undergraduate students must take a 3-credit course or its equivalent with a passing grade in the subject areas of History, Political Science, or African American Studies that covers the founding documents including the United State Constitution, the Declaration of Independence, the Emancipation Proclamation and one or more documents that are foundational to the African American Freedom struggle, and a minimum of five essays from the Federalist papers. This course may count as a requirement in any part of the program of study including the Carolina Core, the major, minor or cognate, or as a general elective. Courses that meet this requirement are listed here (<https://academicbulletins.sc.edu/undergraduate/founding-document-courses/>).

1. Carolina Core Requirements (34-46 hours)

CMW – Effective, Engaged, and Persuasive Communication: Written (6 hours)

must be passed with a grade of C or higher

- any CC-CMW courses (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

ARP – Analytical Reasoning and Problem Solving (8 hours)

must be passed with a grade of C or higher

- MATH 141*
- MATH 142*

SCI – Scientific Literacy (8 hours)

- Two 4-credit hour CC-SCI courses (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

GFL – Global Citizenship and Multicultural Understanding: Foreign Language (0-6 hours)

Demonstration of proficiency in one foreign language equivalent to the minimal passing grade on the exit examination in the 122 course is required. Students can demonstrate this proficiency by successfully completing Phase II of the Proficiency Test or by successfully completing the 122 course, including the exit exam administered as part of that course.

- CC-GFL courses (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

It is strongly recommended that students continuing the study of a foreign language begin college-level study of that language in their first semester and

continue in that language until their particular foreign language requirement is completed.

GHS – Global Citizenship and Multicultural Understanding: Historical Thinking (3 hours)

- any CC-GHS course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

GSS – Global Citizenship and Multicultural Understanding: Social Sciences (3 hours)

- any CC-GSS course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

AIU – Aesthetic and Interpretive Understanding (3 hours)

- any CC-AIU course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

CMS – Effective, Engaged, and Persuasive Communication: Spoken Component ¹ (0-3 hours)

- any overlay or stand-alone CC-CMS course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

INF – Information Literacy ¹ (0-3 hours)

- any overlay or stand-alone CC-INF course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

VSR – Values, Ethics, and Social Responsibility ¹ (0-3 hours)

- any overlay or stand-alone CC-VSR course (<https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>)

¹ **Carolina Core Stand Alone or Overlay Eligible Requirements** – Overlay-approved courses offer students the option of meeting two Carolina Core components in a single course. A maximum of two overlays is allowed. The total Carolina Core credit hours must add up to a minimum of 31 hours. Some programs may have a higher number of minimum Carolina Core hours due to specified requirements.

2. College Requirements (15-19 hours)

Foreign Language (0-3 hours)

- only if needed to meet 122-level proficiency

Analytical Reasoning (6-7 hours)

must be passed with a grade of C or higher

- MATH 344* or MATH 544*
- CSCE 145* or CSCE 206*

History (3 hours)

The College of Arts and Sciences requires one additional GHS course beyond the Carolina Core GHS requirement.

- If the Carolina Core GHS requirement is fulfilled by a **U.S. history** course, the College of Arts and Sciences history requirement must be fulfilled by a **non-U.S. history** course.

- If the Carolina Core GHS requirement is fulfilled by a **non-U.S. history** course, the College of Arts and Sciences history requirement must be fulfilled by a **U.S. history** course.

Please select the College of Arts and Sciences history requirement from the approved list of U.S. and non-U.S. history courses (<https://academicbulletins.sc.edu/undergraduate/arts-sciences/history-requirement/>).

Social Science and Fine Arts or Humanities (6 hours)

- **Social Science (3 hours)**
 - The College of Arts and Science requires one 3- hour Social Science Course (<https://academicbulletins.sc.edu/undergraduate/arts-sciences/courses-acceptable-social-science/>)
- **Fine Arts/Humanities (3 Hours)**
 - ENGL 363*, ENGL 462* or ENGL 463* *must be passed with a grade of C or higher*
 - A Bachelor of Science from the College of Arts and Sciences requires one 3-hour Fine Arts/Humanities Course (<https://academicbulletins.sc.edu/undergraduate/arts-sciences/courses-acceptable-fine-arts-humanities/>)

3. Program Requirements (28-44 hours)

Supporting Courses (3 hours)

must be passed with a grade of C or higher

- MATH 241*

Cognate or Minor (12-18 hours)

Students must complete a cognate (12 hours) or a minor as part of this program. In lieu of a cognate or minor, an additional major may be added to a student's program of study. **Additional majors must include all major courses as well as any prescribed courses noted (*) in the bulletin.**

Prescribed courses noted in the bulletin may be shared with Carolina Core, College requirements, and Program requirements in the primary program.

Cognate (12 hours)

The cognate must consist of twelve (12) hours of courses at the advanced level, outside of but related to the major. The cognate may be taken in one or more departments or programs.

Courses offered by departments and programs that are acceptable for cognate credit are outlined in the section titled Courses Acceptable for Cognate Credit in Degree Programs in the College of Arts and Sciences (<https://academicbulletins.sc.edu/undergraduate/arts-sciences/courses-acceptable-cognate/>). Some major programs have specific cognate requirements. It should be emphasized that the cognate is not a second set of elective courses to be chosen at random by the student. Students are urged to consult their major advisors for specific requirements in their major.

Unless otherwise noted, for Bachelor of Science degrees, cognate courses passed with a grade of D or higher are acceptable.

Minor (18 hours)

In place of the cognate a student in the College of Arts and Sciences may choose a minor consisting of at least 18 credit hours of prescribed courses.

The minor is intended to develop a coherent basic preparation in a second area of study. It differs from the cognate inasmuch as the courses must follow a structured sequence.

Courses applied toward general education requirements cannot be counted toward the minor. No course may satisfy both major and minor requirements. **All minor courses must be passed with a grade of C or higher.** At least half of the courses in the minor must be completed in residence at the University.

A list of minor programs of study can be found at Programs A-Z (<https://academicbulletins.sc.edu/undergraduate/programs-az/>).

Electives (7-29 hours)

120 (or 128) degree applicable credits are required to complete any degree at UofSC. After the cognate, minor or second major is complete, any additional credits needed to reach 120 (or 128) total credits can be fulfilled by electives. 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.

4. Major Requirements (27 hours)

a minimum grade of C is required in all major courses

Major Courses (15 hours)

Course	Title	Credits
Theory		
STAT 511	Probability ¹	3
STAT 512	Mathematical Statistics	3
Methods and Computation		
STAT 509 or STAT 515	Statistics for Engineers ² Statistical Methods I	3
STAT 516	Statistical Methods II	3
STAT 540	Computing in Statistics	3
Total Credit Hours		15

¹ A student double majoring in Mathematics and Statistics may use STAT 511 [=MATH 511] to satisfy a major requirement in both programs.

² 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 advanced application course chosen from STAT 500 or above.

Major Electives (12 hours)

- Select four courses from STAT 500¹ or above, at least one of which must be selected from STAT 513, STAT 517, STAT 520, or STAT 535, which are the options for the Carolina Core integrative course for the Statistics major.

¹ 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 advanced application course chosen from STAT 500 or above.

Major with Actuarial Science Concentration (27 hours)

The Concentration in Actuarial Science requires the Risk Management and Insurance Minor (<https://academicbulletins.sc.edu/undergraduate/business/risk-management-insurance-minor/>) (18 hours).

Course	Title	Credits
Theory		
STAT 511	Probability ¹	3
STAT 512	Mathematical Statistics	3
STAT 513	Theory of Statistical Inference	3
Methods and Computation		
STAT 509 or STAT 515	Statistics for Engineers ² Statistical Methods I	3
STAT 516	Statistical Methods II	3
STAT 540	Computing in Statistics	3
Advanced Applications		
STAT 520	Forecasting and Time Series	3
STAT 521	Applied Stochastic Processes	3
Select one course from STAT 500 ²		3
Total Credit Hours		27

¹ A student double majoring in Mathematics and Statistics may use STAT 511 [=MATH 511] to satisfy a major requirement in both programs.

² 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 advanced application course chosen from STAT 500 or above.

Note: A student double majoring in Economics (in the College of Arts and Sciences) and Statistics 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 advanced application 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.