

Statistics and Data Science (BS): Sample Curriculum

First Year

Intro to Stat. STAT 325 (3), Biometrics I STAT 340 (3), or Business & Econ. Stats. I STAT 350 (3)*

Biometrics II STAT 341 (3)*
or Business & Econ. Stats. II STAT 351 (3)*

* STAT courses at the 400-level or higher may replace either or both of the 300-level STAT courses in this sequence, but credit may be received for only one of STAT 701 or STAT 703

Calculus I MATH 220 (4)

Calculus II MATH 221 (4)

Calculus III Math 222 (4)

Public Speaking COMM 105 (2) or 106 (3)

Soc. Science (3)

Elective (3) *****

Expository Writing I ENGL 100 (3)

Western Heritage (3)

Expository Writing II ENGL 200 (3)

Physical Sciences w/ Lab (4-5)

Sophomore Year

Programming CIS 111 (3), CIS 209 (3) or CIS 200 (4)

Intro. to R Computing STAT 726 (1) (Online Only)

Intro. to the SAS Computing STAT 725 (1) (Online Only)

Prerequisite of any STAT course

Lin. Alg. MATH 515 (3)
or Appl. Mat. MATH 551(3)

Or Appl. Lin. Stat. Models STAT 713 (3)

Regr. & Analy. of Variance STAT 705 (3)

Prerequisite of any STAT course

Elective (3) *****

Elective (3) *****

Literary / Rhetorical Arts (3)

Fine Arts (2-3)

Additional sciences (3-5)

Philosophy (3) NOT 110, 320, 510

Life Sciences w/ Lab, e.g. Prin. of Biology BIOL 198 (4)

Junior Year

Intro. to Mathematical Statistics I STAT 610 (3)**

Intro. to Mathematical Statistics II STAT 611(3)**

**STAT 510 or STAT 770 may replace STAT 610, and STAT 511 or STAT 771 may replace STAT 611 subject to departmental approval.

Elective (3) *****

Elective (3) *****

Elective (3) *****

Soc. Science (3)

Advanced Social Science (3)

Senior Year

Survey Meth. STAT 710 (2)***

Design for Prod./ Process. STAT 722(3) ***

Or Design of Experiments STAT 720 (3)***

***Choose one of STAT 710, 722, STAT 720

Alternate term: 700-level STAT course (not STAT 701 or STAT 703)

Quantitative Elective****

Quantitative Elective****

Adv. Science (with pre-req. in same dept.) (3-5)

Soc. Science (3)

ENGL 516 (3)

Notes:

The following also needs to be considered in the College-level general education requirements:

- The social science courses need to be from three different disciplines.
- One social science course must be 500+ or carry a prerequisite in the same department.
- One of the courses needs to fulfill the International Overlay.
- One of the courses needs to fulfill the US Multicultural Overlay.

**** The quantitative electives must bring the statistics core classes to 50 credits (the number of classes required to do this may vary). Courses must be at the 400-level or above and may include IMSE 541, IMSE 785, ECON 630, math, computer science, statics (excluding 701 and 703) or a course in another area with substantial quantitative content (ask for approval)..

KEY

Course name
Course No. (credits)

Course offered only in Fall Term

Strongly recommended, but not required

Course offered only in Spring Term

Course offered in Fall and Spring, and often in Summer

Course requires a corequisite (arrow enters from side)

Course offered in Spring and Summer Terms

Course required as a co- or prerequisite

Course requires a prerequisite (arrow enters from rear)

Meeting the college-level general education requirements should also satisfy the remaining K-State 8 requirements:

- Aesthetic Experience and Interpretive Understanding
- Global Issues and Perspective
- Human Diversity within the U.S
- Social Sciences
- Ethical Reasoning and Responsibility
- Historical Perspectives
- Natural and Physical Sciences

****The BS also requires 120 credits; 45 in upper-division courses. The number of free electives needed to meet these criteria will vary by student..

Total Hours: 120+

13 credits 16 credits 14-15 credits 13-14 credits 15-17 credits 16 credits 15-17 credits 15 credits