MINOR IN STATISTICS

Program Learning Outcomes for the Minor in Statistics

Upon completing the minor in Statistics, students will be able to:

1. Apply and demonstrate a foundational knowledge in fundamental theory in probability and statistical inference.
2. Apply and demonstrate a foundational knowledge in evaluating statistical models.
3. Apply and demonstrate a foundational knowledge in statistical computing for data analysis and data science.

Requirements for the Minor in Statistics

Students pursuing the minor in Statistics must complete:

- A minimum of 6 courses (19-20 credit hours, depending on course selection) to satisfy minor requirements.
- A minimum of 4 courses (12 credit hours) taken at the 300-level or above.
- A maximum of 2 courses (6 credit hours) from study abroad or transfer credit. For additional departmental guidelines regarding transfer credit, see the Policies (p. 2) tab.
- The requirements for one area of specialization (see below for areas of specialization). The Statistics minor offers two areas of specialization:
  - **Area of Specialization: Track A**: designed for mathematically sophisticated students who wish to understand not only how statistical methods are used, but also how they are developed, ***or***
  - **Area of Specialization: (p. 1) Track B**: designed to help students develop a working knowledge of statistics and the wide range of possibilities for the use and misuse of statistical methods.
- A minimum minor GPA of 2.00 or higher in all coursework that satisfies requirements for the minor.

The courses listed below satisfy the requirements for this minor. In certain instances, courses not on this official list may be substituted upon approval of the minor's academic advisor or, where applicable, the Program Director. (Course substitutions must be formally applied and entered into Degree Works by the minor's Official Certifier (https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/)). Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

Code	Title	Credit Hours
Total Credit Hours Required for the Minor in Statistics		19-20

Minor Requirements

Code	Title	Credit Hours
Area of Specialization		
Select 1 from the following Areas of Specialization (see Areas of Specialization below):		*19-20*
Track A		
Track B		
Total Credit Hours		**19-20**

Area of Specialization: Track A

Students must complete the 6 courses (19-20 credit hours total, depending on course selection) as listed below to satisfy the requirements for the Track A area of specialization.

Code	Title	Credit Hours
Core Requirements		
Select 1 course from the following:		*3-4*
STAT 310 / ECON 307	PROBABILITY AND STATISTICS	
STAT 311	HONORS PROBABILITY AND MATHEMATICAL STATISTICS	
STAT 315 / DSCI 301	PROBABILITY AND STATISTICS FOR DATA SCIENCE	
STAT 405	R FOR DATA SCIENCE	3
STAT 410	LINEAR REGRESSION	4
Elective Requirements		
Select 3 electives (at least 3 credit hours each) from departmental (STAT) course offerings at the 300-level or above. [1,2]		*9*
Total Credit Hours		**19-20**

Footnotes and Additional Information

1 STAT 305, STAT 310, STAT 311, STAT 312, STAT 315, and STAT 385 do not count as electives for Track A. The following are recommended electives for Track A: STAT 313, STAT 411, STAT 413, STAT 418, STAT 421, STAT 423, STAT 425, STAT 449, and STAT 453. Other electives may be chosen as well, with advisor approval.

2 In order to fulfill Elective Requirements, courses must be taken for at least 3 credit hours each.

Area of Specialization: Track B

Students must complete the 6 courses (19-20 credit hours total, depending on course selection) as listed below to satisfy the requirements for the Track B area of specialization.

Code	Title	Credit Hours
Core Requirements		
STAT 280	ELEMENTARY APPLIED STATISTICS	4
or STAT 180	AP/OTH CREDIT IN STATISTICS	
or STAT 305	INTRODUCTION TO STATISTICS FOR BIOSCIENCES	
STAT 385	METHODS OF DATA ANALYSIS AND SYSTEM OPTIMIZATION	3-4
or DSCI 101	INTRODUCTION TO DATA SCIENCE	
Elective Requirements		
Select 4 electives (at least 3 credit hours each) from departmental (STAT) course offerings at the 300-level or above. [1,2,3]		*12*
Total Credit Hours		**19-20**

Footnotes and Additional Information

1 STAT 305 and STAT 385 do not count as electives for Track B. The following are recommended electives for Track B: STAT 313, STAT 405, STAT 482, STAT 484 / CEVE 484, STAT 485, and STAT 486. Other electives may be chosen as well, with advisor approval. Also, with advisor approval, 1 elective may be from departments other than Statistics.

2 In order to fulfill Elective Requirements, courses must be taken for at least 3 credit hours each.

3 Only one of STAT 310, STAT 311, STAT 312, or STAT 315 can be used to fulfill an Elective Requirement for Track B.

Policies for the Minor in Statistics

Program Restrictions and Exclusions

Students pursuing the minor in Statistics should be aware of the following program restriction:

- As noted in Majors, Minors, and Certificates (https://ga.rice.edu/undergraduate-students/academic-opportunities/majors-minors-certificates/), i.) students may declare their intent to pursue a minor only after they have first declared a major, and ii.) students may not major and minor in the same subject.
- Students pursuing the major in Statistics may not additionally declare the minor in Statistics.

Transfer Credit

For Rice University's policy regarding transfer credit, see Transfer Credit (https://ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit/). Some departments and programs have additional restrictions on transfer credit. Requests for transfer credit must be approved for Rice equivalency by the designated transfer credit advisor for the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content). The Office of Academic Advising maintains the university's official list of transfer credit advisors (https://oaa.rice.edu/advising-network/transfer-credit-advisors/) on their website: https://oaa.rice.edu. Students are encouraged to meet with the applicable transfer credit advisor as well as their academic program director when considering transfer credit possibilities.

Departmental Transfer Credit Guidelines

Students pursuing the minor in Statistics should be aware of the following departmental transfer credit guideline:

- No more than 2 courses (6 credit hours) of transfer credit from U.S. or international universities of similar standing as Rice may apply towards the minor.

Additional Information

For additional information, please see the Statistics website: https://statistics.rice.edu/.

Opportunities for the Minor in Statistics

Academic Honors

The university recognizes academic excellence achieved over an undergraduate's academic history at Rice. For information on university honors, please see Latin Honors (https://ga.rice.edu/undergraduate-students/honors-distinctions/university/) (*summa cum laude*, *magna cum laude*, and *cum laude*) and Distinction in Research and Creative Work (https://ga.rice.edu/undergraduate-students/honors-distinctions/university/). Some departments have department-specific Honors awards or designations.

Internship and Research Opportunities

The Department of Statistics encourages its major and minors to participate the practice of statistics through summer internships, employment and research. Information on current opportunities are posted on the *Undergraduate Programs* tab of the department website (https://statistics.rice.edu/academics/undergraduate/). Students can also approach individual faculty about research opportunities in their group. An undergraduate advisor can talk with you about these and other possibilities.

Additional Information

For additional information, please see the Statistics website: https://statistics.rice.edu/.