Connecting Statistics to Middle and Secondary Schools must be numbered 4000 or above and may not include STAT 4050.

Requirements of the degree) or approved statistically-oriented courses; degree requirements below.

Students must complete the university general education requirements (http://catalog.missouri.edu/undergraduategraduate/generaleducationrequirements) and the Department Degree Requirements (http://catalog.missouri.edu/academicdegreerequirements/) in addition to the University general education requirements. Students are trained to meet this demand and develop careers in teaching and research.

Major Program Requirements

Students must complete the university general education requirements (http://catalog.missouri.edu/undergraduategraduate/generaleducationrequirements) and the Department Degree Requirements (http://catalog.missouri.edu/academicdegreerequirements/colleg eofartsandscience/statistics/#undergraduatetext), in addition to the University general education requirements. Students are trained to meet this demand and develop careers in teaching and research.

BA in Statistics

Degree Program Description

Statistics is a modern science concerned with making decisions and inferences from empirical data subject to random variability and error. It deals with designing experiments, sample surveys, summarizing numerical information, building and analyzing statistical models, prediction and choosing between alternate actions. Statistics can tell us how much safer it is to fly than drive, the odds of winning the lottery, our life expectancy and who is likely to win the next election. The BA in Statistics allows students to pursue either a traditional track or an applied track. Students who are interested in graduate study are strongly encouraged to follow the traditional track. All students are encouraged to supplement their work in statistics with courses from areas such as economics, biology, accounting, finance, marketing, management, psychology, sociology, engineering, agriculture and atmospheric science. Because of its importance as a scientific method, the demand for trained statisticians has grown in education, medicine, government, business and industry as well as in the biological, social and physical sciences. Students are trained to meet this demand and develop careers in teaching and research.

Mathematics courses

Traditional track

MATH 1500 Analytic Geometry and Calculus I 5
MATH 1700 Calculus II 5
MATH 2300 Calculus III 3
MATH 4140 Matrix Theory 3

Applied track

MATH 1500 Analytic Geometry and Calculus I 5-6
or MATH 1300 Finite Mathematics
& MATH 1400 and Calculus for Social and Life Sciences I

6 additional credits in statistics (beyond those used to fulfill the statistics requirements of the degree) or approved statistically-oriented courses; must be numbered 4000 or above and may not include STAT 4050: Connecting Statistics to Middle and Secondary Schools

Statistics Courses

Traditional Track

STAT 4970 Senior Seminar 3
STAT 4710 Introduction to Mathematical Statistics 3
or STAT 4750 Introduction to Probability Theory
STAT 3500 Introduction to Probability and Statistics II 3
or STAT 4760 Statistical Inference

Applied Track

Computing Courses

Both tracks

INFO TC 1040 Introduction to Problem Solving and Programming 3

Senior Seminar

Introduction to Mathematical Statistics
or Statistical Inference
or Introduction to Probability and Statistics II

21 additional credits offered by the department, at least 18 of which must be numbered 3000 or above and may not include STAT 4050: Connecting Statistics to Middle and Secondary Schools or more than 3 credits of STAT 4999: Departmental Honors in Statistics

Semester Plan

Below is a sample plan of study, semester by semester. A student’s actual plan may vary based on course choices where options are available.

First Year

Fall CR Spring CR
MATH 1160* 5 MATH 1500 5
ENGLISH 1000* 3 INFO TC 1040 3
Elective 3 Foreign Language II* 5
Foreign Language I* 5 American History or Government*

16 16

Second Year

Fall CR Spring CR
MATH 1700 5 MATH 2300 3
STAT 2500 3 STAT 3500 3
Foreign Language III* 3 Behav Science Elective* 3
WI Elective 3 Hum/Fine Arts Elective* 3
Soc Science Elective* 3

14 15

Third Year

Fall CR Spring CR
MATH 4140 3 Behav Sci Elective* 3
Hum/Fine Arts Elective* 3 Hum/Fine Arts Elective* 3
Soc Science Elective* 3 STAT 4530 3
STAT 4510 3 STAT 4110 3
Elective 3 Elective 3

15 15

Fourth Year

Fall CR Spring CR
STAT 4750 3 STAT 4760 3
Hum/Fine Arts elective 3 STAT 4970* 3
Electives 9 Electives 8

15 14

Total Credits: 120

* Courses used as area in lieu of foreign language
+ Course meets University General Education and/or campus program requirements