

# Minor in Statistics

This minor in Statistics is a multidisciplinary undergraduate program that will provide students a rigorous training in statistical science as well as its applications to other natural science, social science, business, and engineering disciplines. It was built to be flexible depending on students interests and professional aspirations.

This program will add an explicitly marketable skill set to any degree plan at the University of Kansas, indicating to employers or potential graduate programs that you bring a strong understanding of statistical techniques and methodologies as well as their uses and applications. As collecting and analyzing data is ubiquitous in just about every human activity, statisticians can find employment in many areas such as finance and corporate banking, data analytics and data science, medicine, actuarial science, insurance and business analytics, geological and atmospheric sciences, and government.

## Requirements for the Minor

The student must earn a grade point average of 2.0 in all the mathematics/statistics courses attempted.

Code	Title	Hours
<b>Lower-Division Preparation</b>		
MATH 127	Calculus III	4
or MATH 147	Calculus III, Honors	
MATH 290	Elementary Linear Algebra	2
<b>Upper-Division Courses</b>		
Student must choose 12 credit hours from the list below. Note: Most courses on this list have as prerequisites a calculus-based statistics course (MATH 526, MATH 628, or equivalent).		
MATH 582	Computational Data Science	12
MATH 605	Applied Regression Analysis	
MATH 608	Statistical Data Science	
MATH 611	Time Series Analysis	
MATH 627	Probability	
or MATH 72	Probability Theory	
MATH 628	Mathematical Theory of Statistics	
or MATH 728	Statistical Theory	
MATH 630	Actuarial Mathematics	
MATH 717	Nonparametric Statistics	
MATH 750	Stochastic Adaptive Control	
Note: A maximum of one course from the List ApplStats (see below) may be used to fulfill the Upper-Division requirement.		
<b>Total Hours</b>		<b>18</b>

## List ApplStats

Code	Title	Hours
<b>Aerospace Engineering</b>		
AE 768	Orbit Determination	3
<b>Biology</b>		
BIOL 370	Introduction to Biostatistics	4
<b>Business Analytics</b>		
BSAN 415	Data Analysis and Forecasting	3
BSAN 450	Data Mining and Predictive Analytics	3

<b>Civil &amp; Envr Engineering</b>		
CE 711	Probabilistic Design and Reliability	3
CE 760	Stochastic Hydrology	3
<b>Economics</b>		
ECON 526	Introduction to Econometrics	3
ECON 715	Elementary Econometrics	3
ECON 716	Econometric Forecasting	3
<b>Elect Engr &amp; Computer Science</b>		
EECS 563	Introduction to Communication Networks	3
EECS 658	Introduction to Machine Learning	3
EECS 769	Information Theory	3
<b>Educational Psychology</b>		
EPSY 710	Introduction to Statistical Analysis	3
<b>Geography</b>		
GEOG 716	Advanced Geostatistics	3
<b>Geology</b>		
GEOL 504	Inverse Problems for Geoscientists	3
<b>Mechanical Engineering</b>		
ME 788	Optimal Estimation	3
<b>Physics and Astronomy</b>		
PHSX 615	Numerical and Computational Methods in Physics	3
or EPHX 615	Numerical and Computational Methods in Physics	
PHSX 616	Physical Measurements	4
or EPHX 616	Physical Measurements	
PHSX 671	Thermal Physics	3
or EPHX 671	Thermal Physics	
<b>Psychology</b>		
PSYC 500	Intermediate Statistics in Psychological Research	3
DASC 599	Data III: Data Management	3
DASC 612	Data IV: Introduction to Machine and Statistical Learning	3
DASC 699	Community Data Lab	3

## Double Minors in Mathematics and Mathematical Statistics or MATH BS/BA Major and Mathematical Statistics Minor

Students must take at least two courses from the Mathematics course list above that count only for the Mathematical Statistics Minor (not used for Mathematics Major or Minor).