






MATHEMATICAL STATISTICS, EMPHASIS

The Department of Mathematics offers an Area of Emphasis in Mathematical Statistics that is available only to Mathematics Majors or Applied Mathematics Majors. Students who completed an area of emphasis in mathematical statistics must have a demonstrated knowledge and understanding of statistical theory, techniques and methodologies, working with real data, and understanding of data analysis. An area of emphasis in mathematical statistics provides a window of job opportunities in business, government, industry and health sectors, and further studies in statistical sciences. For example, students with area of emphasis in mathematical statistics may be eligible to pursue the Master of Arts in Mathematics with an area of emphasis in statistics, with additional academic years of coursework. Students pursuing the mathematics major may choose an area of emphasis in mathematical statistics, while those pursuing the applied mathematics major must take a minimum of 15 CH in statistics-designated courses, none of which may count toward their major. The area of emphasis in mathematical statistics is not intended for students pursuing a major in statistics.

The requirements for an undergraduate Area of Emphasis in Mathematical Statistics consist of the following courses:

Code	Title	Credit Hours
Core Required Courses		
MTH 229 	Calculus/Analytic Geom I (CT)	5
MTH 230 	Calculus/Analytic Geom II	4
MTH 231 	Calculus/Analytic Geom III	4
MTH 300 	Intro to Higher Math	4
MTH 331 	Linear Algebra	4
STA 445	Probability & Statistics I	3
STA 446	Probability & Statistics II	3
Elective Courses		
STA 412	Regression Analysis	3
STA 413	Experimental Designs	3
STA 420	Nonparametric Statistics	3
STA 422	Time Series Forecasting	3
STA 425	Sampling Designs & Estimation	3
STA 464	Statistical Computing	3
STA 466	Stochastic Processes	3