

ACTUARIAL MATHEMATICS AND STATISTICS MINOR

Note: Only one of MATH 344/MATH 544 may be counted for the minor.

Actuarial science is a growing field with opportunities for rewarding, well-compensated careers. Actuaries serve organizations of many kinds by managing risk to help industries decrease the probability of unfavorable events. While a specific major is not required to enter the field, a minor in actuarial mathematics and statistics offers students an opportunity to assess their interest in this career while strengthening overall skills in mathematics and statistics.

The Actuarial Mathematics and Statistics minor is aimed at students interested in actuarial science with a primary area of study in business-related fields. The minor complements courses traditionally offered by the Business School on accounting, finance and risk management. Completion of the minor helps students prepare for professional actuarial exams necessary to enter the field. For rigorous preparation with a broader view of mathematics, students may also choose to major or double major in mathematics with an actuarial emphasis.

The Statistics Department also offers a Major with a Concentration in Actuarial Science (<https://academicbulletins.sc.edu/undergraduate/arts-sciences/statistics/statistics-bs/>).

Minor Requirements (18 Hours)

Prerequisites

Course	Title	Credits
MATH 141	Calculus I	4
MATH 142	Calculus II	4
MATH 241	Vector Calculus	3
Total Credit Hours		11

Core Courses

Course	Title	Credits
MATH 511	Probability	3
STAT 512	Mathematical Statistics	3
STAT 513	Theory of Statistical Inference	3
Select three of the following:		9
MATH 344 or MATH 544	Applied Linear Algebra Linear Algebra	
MATH 514 or STAT 522	Financial Mathematics I Financial Mathematics I	
MATH 515 or STAT 523	Financial Mathematics II Financial Mathematics II	
MATH 520	Ordinary Differential Equations	
MATH 524	Nonlinear Optimization	
MATH 570	Discrete Optimization	
MATH 574	Discrete Mathematics I	
STAT 520	Forecasting and Time Series	
STAT 521	Applied Stochastic Processes	
STAT 587 or CSCE 587	Big Data Analytics Big Data Analytics	
Total Credit Hours		18