

ACTUARIAL MATHEMATICS AND STATISTICS 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.

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 |

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