Actuaries specialize in the evaluation of financial risk—most often in the context of the mathematical sciences. Actuaries have been called financial architects and social mathematicians because their combined analytical and business skills help solve a growing variety of financial and social problems. The actuarial profession is a demanding yet rewarding career choice.

Related Major and Certificate

Major: Data Science

The BS in data science produces graduates with the sophisticated analytical and computational skills required to thrive in a quantitative world where new problems are encountered at an ever-increasing rate. The major emphasizes the statistical/probabilistic and algorithmic methods that underlie the preparation, analysis, and communication of complex data. With a focus on technical foundations, the data science program promotes skills useful for creating and implementing new or special-purpose analysis and visualization tools. It also promotes a fundamental understanding of how to best handle uncertainty when making data-driven decisions.

Statistics majors may not earn a major in data science. The Department of Statistics and Actuarial Science and the Department of Computer Science collaborate to offer the major in data science. The BS in data science is administered by the Department of Statistics and Actuarial Science; see the BS in data science in the catalog.

Certificate: Social Science Analytics

The growth of big data and informatics calls for a new set of skills for social science students and an increased understanding of the logic of data collection and analysis. The certificate focuses on the application side of data analysis. It allows students to focus on the specific research methods and data-driven quantitative skills that are most effective for understanding an increasingly complicated social-political world. The certificate offers an opportunity for interdisciplinary training on how data can be used to address important questions in the social sciences. The Department of Statistics and Actuarial Science collaborates with the departments of Geographical and Sustainability Sciences, Political Science, and Sociology and Criminology to offer the undergraduate program in social science analytics; see the Certificate in Social Science Analytics in the catalog.