Actuaries are professionals who help businesses assess the risk, cost and impact of future events such as death, sickness, injury, disability, or loss of property. Actuaries have a deep understanding of mathematics, statistics and business management. Actuaries help leaders make strategic decisions and consumers prepare for their future.

**Program Description**
The Master of Science in Actuarial Science degree program is administered through the Department of Mathematical Sciences. Students are prepared to be future leaders of the actuarial and risk management industries with a rigorous training through specialized courses in actuarial science, probability and statistics, finance, and economics. The program is crafted for career changers who intend to pursue fast-track actuarial credentials with no prior actuarial background. All students are prepared to take five actuarial preliminary exams administered by the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS). Students are offered classes required by the SOA for Validation of Educational Experience (VEE) credits in economics, accounting & finance, and mathematical statistics.

**Career Opportunities**
Actuaries are in demand. They work for and with businesses with a financial focus. Businesses including insurance-life, health, property-casualty, even pet insurance. Also, banking, investments, government, energy, e-commerce, marketing, employee benefits, product development, enterprise risk management, predictive analytics, consulting and more. The job of an actuary consistently appears among the top jobs in the rankings of 200 jobs by CareerCast's Jobs Rated Almanac based on such factors as work environment, income, hiring outlook and stress.

**Marketable Skills**
Students are prepared to be future leaders of the actuarial and risk management industries with a rigorous training through specialized courses in actuarial science, probability and statistics, finance, economics and related fields. It is crafted for career changers who intend to pursue fast-track actuarial credentials with no prior actuarial background.

- Creative and critical thinking; specialized knowledge of actuarial theories, methods, tools and practices; long term actuarial mathematics skills; short term actuarial mathematics skills; investment and financial markets skills.
- Actuarial Financial Mathematics Skills; programming skills including MATLAB, C/C++, SQL, R; ability to communicate effectively in the workplace, both through oral and written form, and transmit actuarial knowledge in various forms.
- Ability to work and communicate in groups; ability to network with actuaries in insurance companies, benefits consulting firms, accounting firms and financial institutions; ability to work on intellectual challenges.