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.

Actuarial Science at UT Dallas

The Bachelor of Science in Actuarial Science degree program is administered through the Department of Mathematical Sciences. The program is crafted for students to receive a well-rounded education by completing courses in actuarial science, mathematics, statistics, accounting, finance, economics, and computer science. 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.

Summer Internships

Students in the UT Dallas actuarial programs are encouraged to hold internships and participate in networking events throughout their college career. UT Dallas location is a tremendous advantage for the UT Dallas actuarial science students. Dallas is a major hub for most insurance companies and actuarial consulting firms. Actuarial firms like WillisTowersWatson, AON, Mercer, Milliman, Liberty Mutual, Lewis & Ellis, National Life, SwissRe, OptimumRe, Transamerica, Blue Cross Blue Shield, Globe Life, Cigna, and USAA are proud sponsors and employers UT Dallas actuarial students.

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 complete a number of courses required for Mathematics majors with a specialization in Statistics, as well as courses in computer science, accounting, finance, economics, insurance, applied statistics and actuarial science. All students are prepared to complete five actuarial preliminary exams administered by the Society of Actuaries (SOA) and Casualty Actuarial Society (CAS). Their skillsets include:

- Analytical and logical reasoning; deductive reasoning; problem solving, pattern recognition and inductive reasoning.
- Ability to communicate effectively in the workplace, both through oral and written form, and transmit mathematical knowledge in various forms.
- Ability to work and communicate in groups; long term actuarial mathematics skills; short term actuarial mathematics skills; investment and financial markets skills; statistics for risk modeling skills.
- Actuarial financial mathematics skills; programming skills including MATLAB, C/C++, SQL, R; ability to network with actuaries in insurance companies, benefits consulting firms, accounting firms and financial institutions.
UT Dallas’ School of Natural Sciences and Mathematics offers degree programs for undergraduate and graduate students in biology, chemistry, geosciences, mathematics and physics. In addition to regular coursework, undergraduates are encouraged to participate in research alongside the faculty and graduate students. From the world-renowned Alan G. MacDiarmid NanoTech Institute, headed by Dr. Ray Baughman, to the William B. Hanson Center for Space Sciences—where Dr. John Hoffman helped discover water on Mars—the science education at UT Dallas is a hands-on, high quality experience for undergraduates and graduate students alike.

The UTeach Dallas program offers students the opportunity to complete the requirements for high school teacher certification along with their regular BS or BA degrees.

Quick Facts about the School of Natural Sciences and Mathematics

- Established in 1975.
- Six departments.
- More than 3,200 students.
- 29 degrees offered.
- Faculty include a Nobel Prize winner and a member of the National Academy of Engineering.

Degrees Offered

**Bachelor of Science:** Actuarial science, biochemistry, biology, chemistry, data science, geosciences, mathematics, molecular biology, physics

**Bachelor of Arts:** Biology, chemistry, mathematics, physics

**Master of Science:** Actuarial science, bioinformatics and computational biology, biotechnology, chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

**Master of Arts:** Teaching in mathematics education, teaching in science education

**Doctor of Philosophy:** Chemistry, geosciences, mathematics, molecular and cell biology, physics, statistics

Certificates

Postbaccalaureate certificate in biomedical science
Graduate certification in data science

Fast Track to Graduate School

The Fast Track program enables exceptionally gifted UT Dallas students to include master’s level courses in their undergraduate degree plans. Students who meet the requirements for admission to graduate school and the minimum GPA requirement for their major can take up to 15 hours of graduate level coursework that can apply toward their undergraduate and graduate level coursework. To take graduate courses in the Fast Track program upper-division undergraduates must have completed 90 semester credit hours and petition their associate dean for permission to take graduate courses.