



The **Bachelor of Science** in **Actuarial Science**

Evaluate risk.

Actuaries use the tools of economics, finance and mathematics to evaluate and price risk. To become an actuary, you must satisfy certain educational requirements, pass exams offered by the Society of Actuaries and complete professional courses. Actuarial graduates are employed by insurance companies, pension funds, consulting firms and a variety of financial institutions. Actuarial training is also transferable to broader jobs in data science and analytics.

The Bachelor of Science in Actuarial Science

The BS in Actuarial Science is an interdisciplinary degree designed to provide students with solid preparation to take exams needed to begin a career as an actuary by providing students with the quantitative skills used by actuaries. Students are required to complete courses offered by the College of Arts & Sciences as well as the College of Business Administration. Students take coursework in calculus, financial mathematics, statistics, economics, econometrics, accounting and finance.

Upon completion of the program, graduates will be able to use basic programming techniques in actuarial applications; understand the fundamental concepts of financial mathematics and how those concepts are applied in present and accumulated values for various streams of cash flow; develop the fundamental probability tools for quantitatively assessing risk; use the concepts of statistical inference, such as estimation and hypothesis testing, required for actuarial modeling; use regression models to analyze and forecast time series data; use economic reasoning to explain individual decision-making and economy-wide outcomes; understand and apply accounting concepts and knowledge of financial instruments and how they are utilized; and develop knowledge of the theoretical basis of actuarial models and the application of those models to insurance and other financial risks.

Transforming Lives

The Bachelor of Science in Actuarial Science at UMSL is earned through our College of Arts and Sciences, the academic core of the University of Missouri–St. Louis. Through academic programs offered on- and off- campus, traditional and nontraditional students gain knowledge, skills and intellectual leadership for a variety of career paths, advanced study and research in many academic disciplines.

Graduates are known for their professionalism on the job and their strong sense of civic responsibility. Students in our programs engage in creative and critical thinking, learn to analyze evidence, to appreciate patterns of complexity and to reflect on important issues that impact our daily lives. Students gain skill sets to prepare for a changing workplace that requires flexible, dynamic, and well-educated employees.

Serious education. Serious value.

The Bachelor of Science in Actuarial Science is designed to provide specialized knowledge, skills and training in a flexible format, with classes available in-person, online and in a hybrid format. You'll learn from highly qualified educators and researchers who hold terminal degrees from some of the world's most prestigious academic institutions.

The University of Missouri–St. Louis provides the knowledge, resources, tools, skills and support students need to be successful in our programs. Our comprehensive student support services include workshops, tutoring and career services to help you develop skills and strategies to be successful in the classroom and beyond. UMSL welcomes transfer students and our transfer specialists will assist you with getting the most transfer credits possible. We're also committed to increasing access to higher education, and as such, UMSL is consistently ranked number one in affordability in the St. Louis region.

Learn more at umsl.edu/actuarial

The University of Missouri–St. Louis is the largest public research university located in Missouri's most populous and economically important region. UMSL provides high-quality, affordable education to one of the most diverse student bodies in the state. No university is better connected to the surrounding region than UMSL. Seventy-three percent of our graduates stay in St. Louis. The region needs a well-equipped workforce and UMSL is prepared to help you meet those needs. Choose the University of Missouri–St. Louis for actuarial science.

Career Opportunities

Actuarial Consultant
Actuary
Compensation/Benefits Administrator
Financial Advisor
Financial Analyst
Financial Manager
Information Analyst
Insurance Underwriter
Investment Analyst
Risk Analyst

College of Arts & Sciences

1 University Blvd.
303 Lucas Hall
St. Louis, MO 63121
314-516-5501
artscience@umsl.edu
umsl.edu/divisions/artscience/

Department of Economics

1 University Blvd.
408 Social Sciences Building (SSB)
St. Louis, MO 63121
314-516-5306
allison@umsl.edu
umsl.edu/actuarial

Office of Admissions

1 University Blvd.
351 Millennium Student Center
St. Louis, MO 63121
314-516-5451
admissions@umsl.edu
admissions.umsl.edu



CHOOSE UMSL