

DEPARTMENT OF MATHEMATICS

Master of Actuarial and Quantitative Risk Management



THE OHIO STATE
UNIVERSITY

COLLEGE OF ARTS
AND SCIENCES



Department of Mathematics
Graduate Office
102 Mathematics Building
231 West 18th Avenue
Columbus, OH 43210

Email:
grad-info@math.osu.edu

Phone:
614-292-6274

math.osu.edu/grad

Program Synopsis

The Master of Actuarial and Quantitative Risk Management (MAQRM) program provides a unique combination of actuarial science, quantitative risk management and data science. These areas have become increasingly intertwined, creating a demand for graduates who have acquired expertise in these fields. The curriculum includes innovative courses in risk management, stochastic calculus and data analytics along with more traditional skill training in actuarial science, financial economics, statistics and numerical analysis.

Learning Outcomes

Students in the MAQRM program will acquire proficiency in the core subjects of actuarial and financial mathematics. Those who choose the traditional actuarial science direction will acquire proficiency in the areas covered by the actuarial exams administered by the *Society of Actuaries* and the *Casualty Actuarial Society*. Program graduates will be able to communicate and present technical results to both a general business audience and professional experts clearly and effectively.

Thesis and Non-Thesis Options

Students may choose to complete the degree via either a thesis option or a non-thesis culminating examination. Either option provides students the opportunity to showcase their subject matter expertise. The thesis option may be especially valuable for students considering eventually pursuing another advanced degree.

Practicum Experience

Each student completes a practicum course designed to provide an opportunity to pursue special studies not otherwise offered through the standard curriculum. Presentations and class projects will be given by practicing actuaries on topics drawn from their fields of expertise, and students will give oral presentations on results of the projects and on selected topics in actuarial science, quantitative risk management and data science.

Connections with Employers

The program utilizes well-established connections to the statewide insurance industry and other businesses involved in risk management, which create practical experiences, provide additional mentoring during the program's two years of study and assist with matching students with internships and future job placement of graduates. Most MAQRM students complete at least one internship prior to graduation, and past students in the program have found employment with industry leaders like *Nationwide*, *KeyBank*, *DHL*, *Humana*, *Encova Insurance* and *Westfield Insurance*, among others.

