The Concentration attracts students with strong interest in financial risk analytics and actuarial applications of mathematics, and equips them with advanced analytical tools for professional and academic careers. Students in the Concentration complete coursework or professional exams in Probability, Risk Modeling and Analysis, Mathematical Statistics, Theory of Finance, and Actuarial Models for Life Contingencies or Financial Economics.

Graduate Degree Programs in Mathematics

Actuarial Science, MS (http://catalog.illinois.edu/graduate/las/actuarial-science-ms)
Applied Mathematics, MS (http://catalog.illinois.edu/graduate/las/applied-mathematics-ms)
Mathematics, MS (http://catalog.illinois.edu/graduate/las/mathematics-ms)
Mathematics, PhD (http://catalog.illinois.edu/graduate/las/mathematics-phd)

Students working toward a Ph.D. degree usually require four to six years to complete the requirements. Each student must pass the comprehensive examinations/courses and the preliminary examination (testing the student’s ability to begin or continue research in a chosen field). Students must also write and defend a research thesis in their field of mathematics.

For additional details and requirements refer to the department’s Guide to Graduate Studies (https://files.webservices.illinois.edu/7917/GraduateGuide18-19.pdf) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).
Final Exam/Dissertation Defense  Yes
Dissertation Deposit Required  Yes
Minimum GPA  3.25

To demonstrate competence, a student must receive a B+ or higher in the course, or pass a written exam on the topic.