

Mathematics

College of Arts and Sciences
Department of Mathematics
and Statistics



siue.edu/grad/math

Mathematics and Statistics at SIUE

- How does a statistician design an experiment to test a new drug?
- What is an efficient algorithm to solve a differential equation, and when does it work?
- How do you determine a fair price for an annuity?
- Given a complex network of nodes and edges, what is the shortest path from one vertex to another?
- How can you teach problem solving in a diverse high school classroom?

These are only some of the questions to be explored in our four graduate program concentrations. At SIUE, we have a graduate student-to-faculty ratio of two-to-one, so our students receive personalized attention from faculty recognized for outstanding teaching and excellent research.

Degrees Available at SIUE

- Master of Science in Mathematics

A secondary education mathematics teaching focus is available with our Master of Science in Education (MSEd) in curriculum and instruction.

Specialized Learning Opportunities

- Computational and Applied Mathematics Specialization
- Postsecondary Mathematics Education Specialization
- Pure Mathematics Specialization
- Statistics and Operations Research Specialization
- Mathematics Professional Development Sequences

Combined Degree

- Early Entry BS and MS in Mathematics

Program Format

The program can be completed through traditional daytime and evening courses.

What can I do with a degree in mathematics?

Professionals holding positions as mathematicians, statisticians and actuaries consistently rank their careers at the top of surveys on job satisfaction and security. And, according to the U.S Bureau of Labor Statistics, the job outlook in these fields remains strong with projected growth of 25% over the next 10 years. While salaries vary by field, employment type and education level, approximate median national salaries are as follows:

- Actuary: \$93,000
- Mathematician: \$101,000
- Statistician: \$75,000

Most professionals in the field of mathematics hold a master's or doctoral degree, and our students are no exception. Our graduates have earned PhDs from prestigious universities across the country.

What can I do with a degree in mathematics? Cont.

SIUE graduates are employed in government and corporate organizations, and hold positions with:

- Humana
- The Warranty Group
- Synchrony Financial
- NRG Energy
- Boeing
- National Personnel Records Center
- U.S. Transportation Command
- The FBI

Admission Requirements

- Graduate School application and \$40 fee
- Submission of all postsecondary academic transcripts
- Undergraduate background that includes MATH 150, 152, 223, 250 and 321 or their equivalents
- GPA of at least 2.7 (A=4.0) in mathematics and statistics courses
- International Applicants: Proof of English Proficiency, minimum requirements are TOEFL (79), IELTS (6.5) or equivalent
- A brief statement of educational and career goals and interests, together with any supporting documents
- A description of any special qualifications or relevant professional experience

Program application materials may be uploaded during the application process, but official transcripts must be sent directly from the school attended, and test scores must be verifiable with the appropriate testing service. Please contact the Office of Graduate Admissions with questions regarding the application submission process at graduateadmissions@siue.edu.

In some cases, applicants who meet the requirements for admission to the Graduate School, but do not have the required background in mathematics as indicated above, may register as unclassified graduate students until deficiencies have been satisfied to permit admission to degree-seeking status.

It is recommended that students in the computational and applied mathematics or statistics and operations research specializations have a working knowledge of algorithmic programming language. It is also recommended that students in the theoretical mathematics or computational and applied mathematics specializations have a course in real analysis equivalent to MATH 350 at SIUE.

Graduation Requirements

For students who complete a thesis or research paper, the final examination consists of an oral presentation based on the content of the thesis or research paper. The examination is administered by the student's advisory committee, which includes the student's research advisor and two other members of the graduate faculty. For those students who select additional course work in lieu of a thesis or research paper, the final exam covers the content from three 500-level MATH, STAT or OR courses chosen jointly by the student and advisor.

Required Credit Hours/Tuition and Fees

- 30
- Visit siue.edu/graduate-tuition for detailed tuition information

Curriculum

The program of study requires a minimum of 30 semester hours of graduate credit, at least 15 of which must be at the 500-level. Students must maintain an overall GPA of 3.0 for all courses taken in the program.

Students pursuing a double major must complete all required courses in one of the options below. Six to nine hours of the electives may be waived for students who complete a double major. These students must complete at least nine hours of 500-level mathematics, statistics or operations research courses, not counting the thesis or research paper.

Students may choose from four specializations:

- Pure Mathematics
- Statistics and Operations Research
- Computational and Applied Mathematics
- Postsecondary Mathematics Education

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Contact Information

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