Degrees Available at SIUE

- Bachelor of Arts or Bachelor of Science in Mathematical Studies, Applied Mathematics Specialization

Why Applied Mathematics?
A specialization in the field of mathematics, applied math focuses on using mathematical theories to solve real-world problems, such as those related to structural stability, chemical interactions or wave propagation. It encompasses the use of probability theory, numerical and data analysis, modeling, algorithm development, and simulations to explore the connections between mathematics and science and our environment. Examples of where applied math is used extensively include physics, geology, engineering and technology.

Applied Mathematics at SIUE
All full-time faculty in SIUE’s Department of Mathematics and Statistics hold doctorate degrees. Students interested in pursuing a career in applied mathematics enroll in rigorous math and physics courses. Because advanced computer software is utilized to perform the majority of applied math functions, the department has access to more than 500 computer workstations in dedicated computer labs throughout the college campus. The workstations all have access to leading mathematical software programs.

A departmental Math Club offers lectures by invited guests and hosts several problem-solving competitions designed to foster enthusiasm for math. Math students at SIUE have access to more than 500 state-of-the-art PCs in over a dozen computer labs on campus. SIUE has site licenses for several popular mathematical software packages, including Mathematica, MATLAB, SAS, and Minitab. The University’s Lovejoy Library includes extensive collections of periodicals and books about mathematics and statistics.

Career Outlook
Many graduates with applied math specialization in mathematics are employed in science and engineering fields. The Society for Industrial and Applied Mathematics has identified several emerging career paths for applied mathematicians, including bioinformatics, materials science, computer animation and digital imaging, finance, climatology, and ecology/environmental organizations. The skills acquired in applied math, such as problem-solving skills, also can be applied to a wide variety of career choices.

Career prospects for students with other specialties are also enhanced by courses in mathematics. With above-average salaries and high overall job satisfaction, mathematics and its various specializations have been consistently ranked among the best jobs in the United States over the past several years.

Admission Requirements
Complete MATH 120 and 125, or mathematics courses having these as prerequisites (or equivalent courses at another accredited institution of higher education), have a GPA of 2.0 or higher in all university mathematics courses, and have a GPA of 2.0 or higher in all SIUE courses taken.

Complete in high school seven semesters of university preparatory mathematics courses, including a course in trigonometry, and have no grade lower than a C in those courses. Students who do not qualify for admission into an academic program in the department but hope to seek admission later are encouraged to obtain advice from a faculty member in the department.

Faculty

Distinguished Research Professors
Krzysztof Jarosz, Ph.D.
1982, University of Warsaw

Urszula Ledzewicz, Ph.D.
1984, University of Lodz

Edward C. Sewell, Ph.D.
1990, Cornell University

Professors
Marcus Agustin, Ph.D.
1997, Bowling Green State University

Zenia Agustin, Ph.D.
1997, Bowling Green State University

Chunqing Lu, Ph.D.
1986, University of New York at Buffalo

Andrew A. Neath, Ph.D.
1994, University of California at Davis

George Pelekanos, Ph.D.
1997, University of Delaware

Associate Professors
Song Foh Chew, Ph.D.
2005, Purdue University

Koung Hee Leem, Ph.D.
2003, University of Iowa

James L. Parish, Ph.D.
1985, University of Chicago

G. Stacey Staples, Ph.D.
2004, Southern Illinois University Carbondale

Myung-Sin Song, Ph.D.
2005, University of Iowa

Tammy M. Voepel, Ph.D.
1997, University of Missouri-Columbia

Adam G. Weyhaupt (Chair), Ph.D.
2006, Indiana University

Assistant Professors
Vincent Keiftenbold
2010, University of North Texas

Cynthia Traub, Ph.D.
2006, Washington University
Graduation Requirements

- Complete all specific program requirements.
- Complete all University requirements including:
  - All general education requirements
  - A minimum of 124 credit hours
    - At least 30 of which must be completed at SIUE
    - At least 60 of which must be completed at a regionally accredited 4-year institution
  - A minimum cumulative grade point average of 2.0
- File an Application for Graduation by the first day of the term in which you plan to graduate.

Contact Information
Department of Mathematics and Statistics
College of Arts and Sciences
618.650.2382

TRANSFER STUDENTS Maximize your transfer experience - complete the **bolded** courses/requirements pre-transfer AND satisfy either the Illinois Articulation Initiative (IAI) General Ed Core or receive an AA, AS, or AAT (early childhood, special ed or math) degree from an IAI community college. If ‘Minor’ requirements are shown, discuss careful course selection with the academic advising contact listed. Transfer Credit Equivalency Guides are located at siue.edu/transfer for approved courses.