

GRADUATE SCHOOL

COLLEGE OF SCIENCES AND ARTS



EARN YOUR GRADUATE DEGREE IN MATHEMATICAL SCIENCES

MATHEMATICAL SCIENCES (MS, PHD)

DEGREE PROGRAMS

Michigan Tech's mathematical sciences program features MS and PhD programs with concentrations in discrete mathematics, statistics, and applied mathematics. Michigan Tech researchers in applied mathematics study computational fluid dynamics, modeling and simulation of natural processes, and numerical methods for ordinary and partial differential equations. Discrete mathematics faculty are experts in combinatorics, design and coding theory, number theory, and algebra. The statistics faculty specialize in statistical genetics, computational methods, and functional data analysis. Our high level of research activity has placed our department among the top seventy-five of all math departments in the country in research spending. Class sizes are small and graduate students receive individual attention. The department has a thorough training program for graduate teaching assistants. GTAs are carefully prepared for their instructional duties and for future teaching careers at the university level.

To obtain a master's degree, students must complete the core courses in their chosen area of concentration and select one of three plans of study. Students completing a thesis qualify for a Plan A degree; a Plan B degree requires completion of a project, and a Plan C degree requires completion of course work plus passing the qualifying exams at the MS level.

Completion of the doctoral program requires additional advanced course work and passing the comprehensive exams. Doctoral students must demonstrate the ability to independently conduct research. Doctoral students work closely with a major advisor and must have their research proposal and dissertation approved by their graduate committee.

To learn more, visit www.mtu.edu/math/graduate/program.

DEPARTMENT FACILITIES

The department is located in Fisher Hall, a modern building with excellent teaching technology. The department maintains the Math Learning Center, which provides help for undergraduate math students, and two computing labs. Many classes have a lab or computing component, and the labs provide access to a wide array of software. Computing is increasingly important in many areas of mathematics and science.

WHY STUDY MATH?

Mathematics and statistics are used to solve a wide variety of practical problems. Individuals with analytical and computational skills are in high demand. Mathematicians build models to design cleaner engines and study fluid flows, important to many industries. Statisticians develop computer algorithms to identify which genes correlate with a disease. Our faculty design and analyze error-correcting codes to improve information flow and develop designs used in product testing and scheduling.

MATHEMATICAL SCIENCES SPOTLIGHT

"Without my experience at Michigan Tech, I wouldn't be on my current career path. I took a course in combinatorics that sparked my fascination enough to switch my major to mathematics. The unparalleled opportunities to study and do research, as well as excellent advising, have fully prepared me to continue my education in a mathematics PhD program."

Melanie Laffin '11



ADMISSION REQUIREMENTS

Application deadline: Apply by February 15 to improve your chances to receive funding. Applications are reviewed on an individual basis using a holistic approach.

All Students

- Graduate School application
- Statement of purpose
- Official transcripts
- GRE required
- Three letters of recommendation
- Admitted applicants typically have an undergraduate GPA of 3.0/4.0 or better

International Students

- TOEFL: Recommended score of 79 iBT

FINANCE YOUR FUTURE

Earning your graduate degree is an investment in your career and your future. Here are a few financial aid opportunities you can explore as you look for ways to pay for your degree.

- The Department of Mathematical Sciences offers graduate teaching assistantships to qualified graduate students.
- Many graduate students are eligible for a new set of federal loans, up to \$20,500 per academic year, as an independent student.
- Contact Michigan Tech's Financial Aid Office at 906-487-2622 or finaid@mtu.edu for more information on financial aid opportunities.

ABOUT MICHIGAN TECH

Michigan Technological University, founded in 1885, has gained worldwide recognition for innovative education and scholarship. Michigan Tech is a leading public research university, exploring the boundaries of knowledge, developing new technologies, and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than fifty graduate degree programs in engineering, forestry and environmental sciences, computing, business and economics, natural and physical sciences, technology, humanities, and social sciences.

ABOUT HOUGHTON

Houghton lies in the heart of Upper Michigan's scenic Keweenaw Peninsula. The campus overlooks the Keweenaw Waterway and is just a few miles from Lake Superior. The area's waters and forests, including our 600-acre recreational forest adjoining campus, offer students unparalleled opportunity for outdoor recreation and relaxation. The University's 7,000 students come from all fifty states and more than sixty nations, making the area a vibrant, multicultural community.

Michigan Tech



APPLYING IS EASY—AND FREE!

www.mtu.edu/gradschool/admissions/apply

Department of Mathematical Sciences

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www.mtu.edu/math/graduate/program

Graduate School

Email gradadms@mtu.edu or call 906-487-2327

www.mtu.edu/gradschool