

MS in Mathematics

Admission

Students will be admitted to full graduate standing if they have the equivalent of an undergraduate degree in mathematics, have a grade point average of at least 3.000 in mathematics courses, and meet Graduate School admission requirements.

Program Requirements

To complete the MS degree, students must earn 33 credit hours of graduate credit¹, with a minimum of 24 credit hours in courses in mathematics or statistics offered by the department (exclusive of thesis) numbered 700 or above. The 33 credit hours must include the completion of three two-semester sequences in mathematics and/or statistics numbered 700 or above.

Students who plan to enter the PhD program in applied mathematics should include Real Analysis I and II (MATH 743 and MATH 843) and Numerical Linear Algebra (MATH 751) in their MS program of study.

Generally not more than 6 credit hours of approved coursework may be transferred from another university. Students may take either a thesis or a nonthesis option. Students electing to write a thesis should enroll in MATH 885 for up to 6 credit hours. A student's program must be approved by the department.

An oral comprehensive examination is required of all degree candidates. For students electing the nonthesis option, the exam covers four courses, numbered 700 or above, chosen by the student. For students electing the thesis option, the comprehensive examination takes place at the same time as the thesis defense. The examination normally concentrates on the thesis, plus possibly two courses, numbered 700 or above, chosen by the student.

A student in the PhD program in applied mathematics who does not have a previous master's degree in mathematics will be eligible to receive the MS degree in mathematics upon satisfying the following:

1. Completion of at least 33 credit hours in mathematics courses applicable toward the PhD degree course requirements, and
2. Passing the PhD qualifying exam. In such cases the qualifying exam will constitute the comprehensive exam for the MS degree.

¹ Complex and Vector Analysis for Engineers (MATH 758) and mathematics or statistics courses numbered below 600 do not count toward the 33 credit hours needed for the MS in mathematics.

Applied Learning

Students in the MS in mathematics program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by completing one of the following:

1. The student completes a thesis;
2. The student attends a conference and presents at least a poster;
3. The student performs outreach in the local school district;
4. The student does a presentation in a venue involving members of the community, such as the Science Expo at Keeper of the Plains, or through participation in Math Circle, Pi Mu Epsilon or Math Awareness; or
5. The student carries out a research project followed by a seminar presentation. The department also proposes to compile a list of recent graduates willing to make contact with current students. A student presenting material in a seminar, for example, could reach

out to a member of this professional network and invite them to attend.