

Admission Requirements, MS/MEd programs in Mathematics

Catalog Statement

The equivalent of a bachelor's degree with a major in mathematics. Students who have not completed the equivalent of Math 431 and Math 432, Advanced Calculus, as undergraduates will be required to do so as part of their graduate program. Students without the required degree, or equivalent, may be admitted but will be required to satisfactorily complete undergraduate courses to make up their deficiency before advancing to approved status.

What constitutes a bachelor's degree in mathematics or the equivalent?

The following core courses:

1. Calculus. Includes limits, differentiation, integration, sequences, series, partial differentiation, multiple integration, line, and surface integrals. Will usually be a 3 semester sequence of 9–12 credit hours.
2. Differential Equations. At least one course in elementary differential equations.
3. Linear Algebra. At least one course at the post-calculus level in linear algebra. May have either an applied or a theoretical emphasis.

Introduction to set theory and logic. May be a separate course (as at UND) or may be included in other courses. In either case, students should be familiar with the fundamentals of set theory and be able to read and write mathematical proofs.

In-depth study of at least one advanced (senior level) topic for two or more semesters. The particular content will vary greatly from one place to another. At UND we require our students to take two of the following sequences, at least one of which must include two 400-level courses.

1. Combinatorics (Math 208 and 408)
2. Differential Equations (Math 352 and 412)
3. Classical Mathematics (two of Math 409, 435, and 471)
4. Statistics (Math 421 and 422)
5. Advanced Calculus (Math 431 and 432)
6. Algebra (Math 441 and 442)
7. Numerical Analysis (Math 461 and 462)

Students applying for the MEd program must also have completed undergraduate coursework sufficient to meet teacher licensure requirements.