

MASTER OF SCIENCE IN MATHEMATICS

Purpose

The MS in Mathematics is designed to enhance and enrich training in the field of mathematics for persons who teach at the secondary level or in community colleges, and to provide a rigorous depth and breadth of mathematical study for people who plan to work as applied mathematicians in industry or government agencies, as well as those who wish to continue their studies at the doctoral level. The department offers the Master of Science degree with thesis and non-thesis tracks.

Admission Requirements

Students should have an undergraduate major in mathematics or related field. Those lacking the appropriate background will be required to complete leveling work. The departmental graduate advisor in consultation with the mathematics faculty will review the student's transcript and determine if leveling work is needed. Leveling requirements generally include the following courses (TSU course numbers are provided):

- MATH 120 – Calculus I
- MATH 209 – Calculus II
- MATH 306 – Differential Equations
- MATH 311 – Probability and Statistics (Calculus-based)
- MATH 332 – Linear Algebra
- MATH 333 – Calculus III
- MATH 409 – Advanced Analysis
- MATH 432 – Abstract Algebra

The departmental graduate advisor will assist the student in selecting a graduate committee. The committee should consist of a minimum of three members, at least-two of whom are from the graduate faculty of the Department of Mathematics. The third may be chosen from the graduate faculty of a department in which the student takes supportive graduate course-work.

DEGREE REQUIREMENTS

The MS in Mathematics requires 36 hours of approved work in Mathematics and supporting areas. At least 24 hours must be selected from 500-level MATH courses that must include MATH 505(3), MATH 508(3), MATH 520(3), MATH 550(3), and MATH 598(1). Thesis and MATH courses numbered 570-579 may not be used to satisfy this 24 hour requirement.

The remaining 12 hours will be selected from approved MATH or supporting courses. These remaining hours may include 6 hours of thesis. If the thesis track is chosen, the chair of the student's graduate committee will direct the master's thesis. MATH courses numbered 570-579 may be applied toward the support area if approved by the committee.

COMPREHENSIVE EXAMINATION

The department requires an oral comprehensive examination for the MS degree. The comprehensive examination will be administered by the student's graduate committee during the last semester of the program. The Dean of the College of Graduate Studies or a representative from the Graduate Office will be invited to participate in the oral examination. If the result of the oral comprehensive examination is less than satisfactory, additional course work in areas of weakness may be recommended before rescheduling the examination.