MATHEMATICS

Graduate Programs

The Department of Mathematics offers programs leading to the Master of Science and Doctor of Philosophy degrees.

Prerequisites

A student beginning graduate study in mathematics is expected to have had, as an undergraduate, at least 18 semester hours in mathematics beyond elementary integral calculus including courses in differential equations, linear algebra, modern algebra and modern analysis. An applicant whose preparation is deficient may be admitted to the program, if otherwise qualified, but will be required to correct the deficiency, increasing somewhat the time required to complete work for the degree. Prospective graduate students are advised to take at least introductory courses in related fields such as physics, statistics and computer science.

The Master of Science Degree

The department offers three tracks in the Master of Science degree, computational and applied mathematics, mathematics education and pure mathematics. Each degree requires 33 credit hours of graduate course work in mathematics or related subjects. Two of these hours are waived if a master's thesis is written. Each student must have a grade of "A" or "B" in 18 hours of core coursework.

The Doctor of Philosophy Degree

The department offers three tracks for the PhD degree: applied mathematics, mathematics education and pure mathematics. Admission to the PhD program is granted only to students with superior records in their previous graduate or undergraduate study. A minimum of 90 semester credit hours of graduate credit beyond the bachelor's degree or 60 hours of beyond the master's degree is required for the PhD degree. Each student has an individual doctoral committee that advises the student in the formulation of an approved plan of study for the degree. Each student must have a grade of "A" or "B" in 15 hours of core coursework, complete a preliminary research project, and pass a qualifying exam.

The most important requirement for the PhD degree is the preparation of an acceptable dissertation. This dissertation must demonstrate the candidate's ability to do independent, original work in mathematics, or mathematics education.