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 32 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 is required for the PhD degree. This may include a maximum of 24 hours credit for the thesis. 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 pass three comprehensive exams from a selection of core topic areas, or pass two such exams and complete a minor thesis.

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.