### M.S., Ph.D. Degrees

Minimum Requirements for Degrees: M.S.: 30-35 credits; Ph.D.: 18 thesis credits

The number of new fields in which professional mathematicians find employment grows continually. This department prepares students for careers in industry, government and education.

The M.S. in mathematics prepares students for Ph.D. work, in addition to providing a terminal degree for those planning to enter industry or education. The aim of the Ph.D. program is to provide the student with the expertise to accomplish significant research in applied or pure mathematics, as well as to provide a broad and deep professional education.

In addition to the major programs, the department provides a number of service courses in support of other programs within the university. Current and detailed information on mathematics degrees and course offerings is available from the department.

The Department of Mathematics and Statistics also offers programs in statistics (see separate listings).

### M.S. Degree

1. Complete the following admission requirements:
   a. Submit three letters of recommendation addressing the applicant’s educational background, mathematical ability, and research and teaching potential.
   b. Submit undergraduate transcripts.
   c. Submit a resume and written statement of goals.

2. Complete the general university requirements (page 235).

3. Complete the master's degree requirements (page 235) including a written comprehensive exam.

4. Complete the following core courses:
   - MATH F631—Algebra I.................................4
   - MATH F641—Real Analysis..........................4
   - MATH F645—Complex Analysis..................4
   - MATH F651—Topology.................................4

5. Complete a project or thesis.

6. Minimum credits required ......................................30-35

Note: For admission to the graduate school, students who are non-native speakers of English are required to submit either TOEFL or IELTS scores. While not required, we recommend the submission of GRE mathematics subject test scores as part of the application for all students.

### Ph.D. Degree

1. Complete the following admission requirements:
   a. Submit three letters of recommendation addressing the applicant’s educational background, mathematical ability, and research and teaching potential.
   b. Submit undergraduate and, if applicable, graduate transcripts.
   c. Submit a resume and written statement of goals.

2. Either submit transcripts indicating the completion of a master’s degree in mathematics or a related area, or complete all the requirements for the M.S. degree in mathematics, including a project or thesis which initiates study of the Ph.D. research area.

3. Pass the Ph.D. qualifying exam.

4. Complete the general university requirements (page 235).

5. Complete the Ph.D. degree requirements (page 236).

6. Minimum credits required ................................................36

Note: For admission to the graduate school, students who are non-native speakers of English are required to submit either TOEFL or IELTS scores. While not required, we recommend the submission of GRE mathematics subject test scores as part of the application for all students.