Degree Requirements, Mathematics

Graduate handbook information is updated and maintained by each program. Graduate handbooks are available within each program's office and online at https://utexas.box.com/v/UTAustinGraduateHandbooks. Please contact the program with concerns or questions.

Master of Arts

The MA degree focuses on actuarial mathematics and requires completion of at least 33 semester hours of coursework (11 three-credit-hour courses) to include Mathematics 389U, 389V, 389W, 389J, and 389P. Up to nine hours of upper-division undergraduate coursework may be used to satisfy program requirements, with no more than six of those nine in a single subject. At least 18 semester hours must be completed in Mathematics coursework, and at least six hours must be completed in supporting work, or coursework offered outside of Mathematics. Graduate program requirements vary by individual and are determined based upon on each student's exam status on arrival.

Doctor of Philosophy

The Doctor of Philosophy (PhD) in Mathematics is a research degree designed to prepare students to discover, integrate, and apply knowledge as well as to communicate and disseminate it. At the core of the program is the completion of a research project leading to a dissertation worthy of the PhD degree.

The PhD degree formally requires a minimum of 30 semester hours of advanced coursework, including a minimum of six dissertation hours. High-performing students normally require five to six years of full-time enrollment (9-12 semesters or 81 to 108 semester hours) to complete requirements of the PhD degree. It is quite exceptional (applies to less than 1% of students, and only in unusual circumstances) that a student is able to complete the requirements in less than nine semesters.

Students enrolled in the Mathematics Ph.D. program may apply to receive the MA degree after completing 30 semester hours of coursework and the report course Mathematics 398R, *Master's Report*, or 33 semester hours of coursework without thesis or report. The 30-33 hours are divided into major and minor areas. The major area consists of mathematics courses and the minor area consists of courses that are related to mathematics. Students should consult the graduate advisor about the courses that are allowable for the minor. Students must complete 18 to 24 semester hours in the major area and 6 to 12 semester hours in the minor area.

While the overall degree generally requires five to six years, the distribution of the coursework and dissertation components of the degree varies considerably. Among other factors, it depends on the mathematical preparation of the student on entry.

Each student is first required to pass preliminary examinations. The preliminary examinations are given once each semester. Of the 12 Prelim segments, students must pass at least seven in distinct areas, of which at least three must be by exam. A passing grade in a Prelim course is a "B", while the passing standard for a Prelim exam is determined by the faculty committee administering that exam.

The following list lays out the kinds of coursework required of all PhD students:

- Required coursework: Prelim courses
- Elective coursework: Topics courses and graduate courses offered by other departments
- Conference courses
- Dissertation hours (minimum six hours)

It is of key importance that PhD students identify a faculty research supervisor who will supervise their dissertation research as early as possible in the program.

A small advisory committee consisting of members of the Graduate Studies Committee and the faculty research supervisor is then formed. The advisory committee administers an advanced examination in the chosen area of specialization, during which the student gives an oral presentation and is questioned by members of the committee. The student must pass the advanced examination before admission to candidacy will be approved. A detailed description of the procedure for admission to candidacy is available in the Mathematics graduate handbook.