

MATHEMATICS PHD

Degree Requirements

The following requirements are in addition to, or further elaborate upon, those requirements outlined in The Graduate School Policy Guide (<https://catalogs.northwestern.edu/tgs/academic-policies-procedures/>).

PhD

Total Units Required: 21

Course	Title
Core Courses (9 units)	
MATH 410-1 & MATH 410-2 & MATH 410-3	Analysis and Analysis and Introduction to Modern Analysis
MATH 440-1 & MATH 440-2 & MATH 440-3	Geometry and Topology and Geometry and Topology and Geometry and Topology
MATH 470-1 & MATH 470-2 & MATH 470-3	Algebra and Algebra and Algebra

Elective Courses (12 units)

Notes

- A student who has passed the qualifying exam may register for TGS 500-0 Advanced Doctoral Study as an elective course.
- A passed preliminary exam in a subject may be substituted for a course.

Other PhD Degree Requirements

- **Examinations:** three written preliminary examination in the core courses of Analysis, Geometry/Topology, and Algebra; oral qualifying examination
- **Research/Projects:** see PhD Dissertation below
- **PhD Dissertation:** original, independent research
- **Final Evaluations:** defense of dissertation