

# MATHEMATICS PHD

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## 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
<b>Core Courses (9 units)</b>	
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
<b>Elective Courses (12 units)</b>	

### Notes

- A student who has passed the qualifying exam may register for TGS 500-0 Funded Doctoral Study beginning in the third year.

### 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