

# MATHEMATICS, PHD

**Requirements for Students Matriculating in or before Academic Year 2024-2025.** Learn more about Graduate College Academic Regulation 7.0 (<http://catalog.okstate.edu/graduate-college/#70>).

**Total Hours:** 60 (Beyond the Master's Degree)

Code	Title	Hours
<b>Core Courses</b>		
Select 15 hours from one of the following tracks:		15
<i>Applied</i>		
MATH 5023	Advanced Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
<i>Pure</i>		
MATH 5023	Advanced Linear Algebra	
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
<i>Mathematics Education</i>		
MATH 5023	Advanced Linear Algebra	
Select 9 hours from the following:		
MATH 5143	Real Analysis I	
MATH 5283	Complex Analysis I	
MATH 5613	Algebra I	
MATH 5313	Geometric Topology	
MATH 5543	Numerical Analysis for Differential Equations	
MATH 5233	Partial Differential Equations	
Select one of the following:		
STAT 5023	Statistics for Experimenters II	
STAT 5063	Statistical Machine Learning with R	
<b>Hours Subtotal</b>		<b>15</b>
<b>Additional Math Courses</b>		
Select 12 hours from track used for core courses.		12
<i>Applied</i>		
In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).		
<i>Pure</i>		
In addition to the core course requirements, every plan of study must contain at least 12 hours of graduate courses in the mathematical sciences (mathematics, statistics, or computer science).		
<i>Mathematics Education</i>		
MATH 5913	Introduction to Research in Mathematics Education	
MATH 6923	Research in Undergraduate Mathematics Education	

Select 6 hours from the following:

SCFD 6113	Theoretical Foundations of Inquiry
SCFD 6123	Qualitative Research I
EPSY 5463	Psychology of Learning
REMS 5953	Statistical Methods in Education

**Hours Subtotal** 12

**Preliminary Research Project**

MATH 6010	Advanced Seminar in Mathematics (Reading course with advisor)	3
MATH 6090	Doctoral Research Project	3

**Hours Subtotal** 6

**Additional Graduate Courses**

Combination of electives and dissertation hours to total 27 hours.		27
--	--	----

## Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2024-2025 Doctor of Philosophy (PhD) Degree Program Requirements (<http://catalog.okstate.edu/graduate-college/>). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.