

# TEACHING, LEARNING AND LEADERSHIP: MATHEMATICS/SCIENCE EDUCATION, MS

**Requirements for Students Matriculating in or before Academic Year 2023-2024.** Learn more about Graduate College Academic Regulation 7.0 (<http://catalog.okstate.edu/graduate-college/#70>).

**Total Hours:** 36

Code	Title	Hours
<b>Common Program Core</b>		
CIED 5053	Curriculum Issues	3
CIED 5813	Educational Advocacy and Leadership	3
<b>Hours Subtotal</b>		<b>6</b>
<b>Research Requirement</b>		
Select 6 hours from the following:		6
CIED 5073	Pedagogical Research	
MATH 5913	Introduction to Research in Mathematics Education	
REMS 5013	Research Design and Methodology	
REMS 5953	Statistical Methods in Education	
STAT 5013	Statistics for Experimenters I	
SCFD 5913	Introduction to Qualitative Inquiry	
<b>Hours Subtotal</b>		<b>6</b>
<b>Program Core</b>		
SMED 5750	Seminar in Mathematics Education	3
SMED 5193	Inquiry and Problem-Based Learning in Science Education	3
or SMED 5283	Problem-Centered Learning in Mathematics	
<b>Hours Subtotal</b>		<b>6</b>
<b>Areas of Emphasis</b>		
Select 12 hours		12
<b>Hours Subtotal</b>		<b>12</b>
<b>Elective or Thesis</b>		
Select 6 hours		6
SMED 5050	Seminar in Integrated Mathematics and Science Applications	
SMED 5193	Inquiry and Problem-Based Learning in Science Education	
SMED 5223	Teaching Science in the Schools	
SMED 5243	Environmental Education in the Curriculum	
SMED 5253	Teaching Rational Number Concepts, Proportional Reasoning, and Classroom Interactions	
SMED 5263	Assessment and Evaluation in School Mathematics	
SMED 5270	Practicum in School Mathematics	
SMED 5273	Number Concepts and Assessment at the Elementary Level (PK-6)	
SMED 5280	Workshop in Science Education	
SMED 5283	Problem-Centered Learning in Mathematics	

SMED 5293	Teaching and Learning Mathematics in Technology	
SMED 5313	Introduction to K-12 Engineering Education	
SMED 5323	Technology for the K-12 STEM Educator	
SMED 5333	Developing Informal and Formal STEM Programs in Schools	
SMED 5613	Effective Teaching of Mathematics in the Secondary School	
SMED 5750	Seminar in Mathematics Education	
SMED 5813	Assessment in Science Education	
SMED 5913	Teaching Geometry and Spatial Visualization	
SMED 5923	Teaching Algebra and Mathematical Tasks	
SMED 5933	Teaching Data and Probability in Schools	
SMED 5943	Mathematics Leadership and Coaching	
<b>Hours Subtotal</b>		<b>6</b>
<b>Total Hours</b>		<b>36</b>

## Graduate College Master's Program Requirements

Learn more about Graduate College 2023-2024 Master's 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.