

# EDUCATION: SCIENCE EDUCATION, 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:** 69 (Beyond the Master's Degree)

Code	Title	Hours
<b>Common Program Core</b>		
SCFD 6983	Diversity and Equity Issues in Education	3
SCFD 6113	Theoretical Foundations of Inquiry	3
CIED 6503	Doctoral Seminar	3
<b>Hours Subtotal</b>		<b>9</b>
<b>Extended Inquiry</b>		
At least six of these hours, selected from courses such as those listed below, should be composed of the same type of research method (i.e., quantitative, qualitative, historical, etc.). Students should work with their advisory committee to select the appropriate 12 hours for their program of study.		12
CIED 6073	Advanced Pedagogical Research	
CIED 6253	Designing and Conducting Mixed Methods Research	
REMS 6003	Analyses of Variance	
REMS 6013	Multiple Regression Analysis in Behavioral Studies	
REMS 6023	Psychometric Theory	
REMS 6033	Factor Analysis in Behavioral Research	
REMS 6663	Applied Multivariate Research in Behavioral Studies	
REMS 5963	Computer Applications in Nonparametric Data Analyses	
SCFD 6123	Qualitative Research I	
SCFD 6190	Qualitative Research: Selected Methods	
SCFD 6193	Qualitative Research II	
<b>Hours Subtotal</b>		<b>12</b>
<b>Cognate Area</b>		
The doctoral advisory committee will work with individual students to select the most appropriate courses to enhance their knowledge within their specializations.		9
<b>Hours Subtotal</b>		<b>9</b>
<b>Independent Research</b>		
CIED 6000	Doctoral Dissertation	15
<b>Hours Subtotal</b>		<b>15</b>
<b>Specialization - Science Education</b>		
<i>Required Courses</i>		
SMED 6223	Instruction and Learning in Science and Mathematics Education	3
SMED 6233	Affective Issues in Teaching Mathematics and Sciences	3
SMED 6753	Research in Mathematics and Science Education	3

*Electives*

Select 15 hours from the following:		15
CIED 5850	Directed Study	
CIED 6910	Practicum	
CIED 6850	Directed Reading	
CIED 5720	Education Workshop	
CIED 5850	Directed Study	
CIED 6850	Directed Reading	
CIED 6910	Practicum	
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 5280	Workshop in Science Education	
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 5813	Assessment in Science Education	
SMED 6123	Teaching the Nature of Science in Secondary Science Education	
<b>Hours Subtotal</b>		<b>24</b>
<b>Total Hours</b>		<b>69</b>

## 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.