# Learning and Teaching in STEM (PhD): Mathematics and Statistics Education

#### **Degree Requirements**

Code	Title	Hours
College Scholar Leader Core Courses		
ED 755	Scholar Leader: Diversity and Equity in Schools and Communities	
ED 756	Scholar Leader: Systemic Change in Education	
College Researc	h Methods Courses	15
Required Introduc	ctory Research Methods Courses	6
ED 710	Applied Quantitative Methods in Education I	
ED 730	Introduction to Qualitative Research in Education	n
Advanced Resea list below)	rch Methods Courses (select one course from the	9 3
ED 711	Applied Quantitative Methods in Education II	
ED 731	Advanced Qualitative Research and Data Analysin Education	sis
ED 750	Mixed Methods Research in Education	
Advanced Resea	rch Methods Electives	6
Select two courses from the list above or other advanced research courses approved by the student advisor.		
Dissertation Research		

EMS 895 Doctoral Dissertation Research

<sup>1</sup> Students may also select from a design-based research course or courses in the Department of Statistics or Psychology at the level 500 or above (e.g., ST 505, PSY 880) approved in conjunction with the academic committee.

#### **Mathematics and Statistics Education**

Code	Title	Hours
Learning and Teaching in STEM Education Core Courses		
EMS 791	Contemporary Research and Critical Issues in STEM Education	
EMS 794	Special Problems in Science Teaching	
Mathematics and	d Statistics Education Specific Courses	24
Foundations Cou	rse (select one course from the list below)	3
EMS 770	Foundations Of Mathematics Education	
EMS 792	Special Problems in Math Teaching	
Teaching and Learning Course (select one course from the list below)		
EMS 711	Research on the Teaching and Learning of Math Secondary and Early College Levels	n at
EMS 712	Teaching Mathematics In Elementary and Junior High School	r
Select two Additional Courses in Mathematics and Statistics		

EMS 704	Curriculum Development and Evaluation In Science and Mathematics		
EMS 705	Education and Supervision Of Teachers Of Mathematics and Science		
EMS 792	Special Problems in Math Teaching		
Experiences in M	athematics Education	3	
Select one of the following: <sup>3</sup>			
EMS 841	Practicum In Science and Mathematics Education		
EMS 851	Internship In Mathematics and Science Education		
Seminars and Preliminary Exam			
EMS 802	Seminar In Mathematics Education ((Intro Seminar in Mathematics Education1 credit, taken within one of the first two semesters at beginning of program))		
EMS 802	Seminar In Mathematics Education ((Advanced Seminar in Mathematics Education-1 credit, taken near end of program))		
EMS 890	Doctoral Preliminary Exam		
Specialty Course	S	6	
Specialty Course broaden and are committee	s (courses 500 or above level) that deepen or determined in conjunction with the academic		
Total Hours		60	
<sup>2</sup> Any course not chosen in Foundations or Teaching and Learning			

categories. <sup>3</sup> These experiences are planned in coordination with an advisor and are meant to enhance a student's applicable experience in educational settings This could be one experience of 3 hours or any combination of hours.

## Faculty

### Full Professors

Margaret R. Blanchard

Sarah J. Carrier

Aaron Catron Clark

Jo-Ann D. Cohen

Karen Flanagan Hollebrands

Jessica Heather Hunt

Carla Johnson

Melissa Gail Jones

Hollylynne Stohl Lee

Soonhye Park

#### **Associate Professors**

Cesar Delgado

Kristin Collette Rogis Busch

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Cameron Denson

Erin Krupa

Temple A. Walkowiak

#### **Assistant Professors**

Robin Keturah Anderson

Sunghwan Byun

Ruby Ellis

Tamecia Raishaun Jones

Daniel Kelly

### Practice/Research/Teaching Professors

Cynthia Page Edgington

Matt Reynolds

#### **Emeritus Faculty**

Eric Wiebe