

PhD in Learning, Teaching and Curriculum with Emphasis in Mathematics Education

The MU Ph.D. program in Mathematics Education is designed to prepare individuals for careers in higher education and leadership positions in a variety of educational settings. The program aims to enhance student knowledge about the field of mathematics education and develop expertise in conceptualizing, conducting and reporting research studies. Programs of study are individually planned with a faculty committee, and are based upon candidate's background, experiences, and professional goals. The majority of our graduates take positions in Colleges of Education or Departments of Mathematics at universities or colleges. However, some graduates move into administrative and supervisory roles at district or state levels.

Degree Requirements

The PhD program is designed to require about four years of study, which consists of a minimum of 72 hours of coursework beyond the bachelor's degree, participation in a variety of research and teaching internships, and the design and implementation of a dissertation study focused on original research.

Mathematics Education (about 30 credit hours)

Core Courses:		
LTC 8860	Mathematics Curriculum	3
LTC 8870	Studying Mathematics Teaching in Schools	3
LTC 8879	Mathematical Thinking and Learning	3
LTC 8900	Seminar in Curriculum and Instruction (Research on Equity and Diversity in Mathematics Education)	1-3
LTC 9860	Research in Mathematics Education	1

Other Recommended Courses:

LTC (minimum of 9 credit hours)

Required Courses:		
LTC 9060	Theories of Learning and Implications for Education	3
LTC 9050	Curriculum Theories	3
Choose one of the following courses:		
LTC 9070	Philosophical Perspectives in Education Research	3
LTC 9040	Curriculum Theories	

Outside Emphasis Area (minimum of 12 credit hours)

Students identify an outside emphasis area related to mathematics education such as mathematics, statistics, psychology, or educational leadership.

Educational Research (minimum of 12 credit hours)

Required Courses:		
ESC_PS 8830	Quantitative Analysis in Educational Research	
ESC_PS 8957	Qualitative Methods in Educational Research I	3

ESC_PS 9620	Qualitative Methods in Educational Research II	3
At least one additional course in quantitative methods such as:		
ESC_PS 7170	Introduction to Applied Statistics	3
ESC_PS 8020	Overview of Research Methods	3
ESC_PS 8087	Seminar in Educational, School, and Counseling Psychology	1-3

Experiences in Research, College Teaching, Design, Teacher Development (in consultation with advisor)

It is expected that doctoral students will have a range of "beyond-course" experiences, including:

- Completing a second-year study
- Teaching mathematics teaching methods course(s)
- Supervising and working with student teachers
- Preparing grant proposals
- Design
- Planning and facilitating professional development for teachers
- Formulating and delivering presentations at professional meetings
- Critiquing submissions to mathematics education journals or professional conferences

Dissertation (12 semester hours)

LTC 9090	Research in Curriculum and Instruction	12
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Admissions

Applicants are required to meet two sets of minimum qualifications for admission: the requirements of the PhD in Learning, Teaching and Curriculum (<https://gradschool.missouri.edu/degrecategory/learning/>) and the minimum requirements of the Graduate School (<https://gradschool.missouri.edu/admissions/eligibility-process/>). Because requirements vary, you *must* refer to a degree program's graduate admission page to learn about specific admission criteria, application deadlines, eligibility and application process. Your application materials will be reviewed by both the Graduate School and the degree program to which you've applied before official admission to the University of Missouri.

The LTC graduate program cannot assure admission to all applicants who meet minimum standards specified for the degree program.

Resource constraints do not permit the admission of all qualified applicants.

A committee of faculty reviews the credentials of each applicant. It is the responsibility of this committee to exercise professional judgment related to the criteria that applicants must meet in order to be considered for admission to the program.