



## Graduate Programs in Mathematics

### Master of Arts in Teaching K-9 Mathematics (48 credits minimum)

Course	Required Courses	Credits
MATH 510	Number Sense for Teachers	3
MATH 511	Ratio & Proportion for Teachers	3
MATH 512	Geometric Reasoning for Teachers	3
MATH 513	Data Analysis & Probability for Teachers	3
MATH 514	Algebraic Reasoning for Teachers	3
MATH 515	Measurement for Teachers	3
MATH 524	Mathematics Curriculum in Elementary & Middle School	3
MATH 525	Assessment and Mathematics Learning	3
MATH 528	Problem-Centered Learning	3
MATH 592	Theory and Research in Mathematics Teaching & Learning	3
EDUC 520	Methods of Educational Research	4
MATH 601	Research Report (minimum)	3
<b>Elective Courses</b>		
MATH 516	Calculus for Middle School Teachers	4
MATH 526	Leadership in Mathematics Education	3
MATH 527	Technology in Mathematics Teaching & Learning	3
MATH 529	Topics in Mathematics Education**	3
MATH 593	Pedagogical Development Studies (may be repeated for maximum of 3 credits)	1
MATH 694	Middle Level Endorsement Internship	4

**\*\*Possible topics include:** Historical & Cultural Developments in Mathematics, Equity & Mathematics, History of Mathematics Education, Systems Theory & Learning. This course may be repeated with different topics.

Course Offerings				
Year	Fall	Winter	Spring	Summer
Odd	MATH 513	MATH 514	MATH 515	MATH 513
	MATH 592	MATH 527	MATH 528	MATH 529
Even	MATH 510	MATH 511	MATH 525	MATH 516
	MATH 512	MATH 524	MATH 529	MATH 527
Quarterly as required	MATH 601	MATH 601	MATH 601	MATH 601
	EDUC 520	EDUC 520	EDUC 520	EDUC 520
	MATH 694	MATH 694	MATH 694	MATH 694

## **General Admission Requirements for the Master of Arts in Teaching K-9 Mathematics Degree:**

1. A Bachelor's degree.
2. Current teaching certificate
3. Recommendations from three persons in the field of Education, one of whom has known the student in a supervisory capacity.
4. Acceptance into the graduate program (see Admission Policies and Procedures as stated in the catalog).
5. Graduate Record Exam
6. Demonstration of entry-level competency on an inventory of content knowledge for teaching administered in the mathematics department.

## **Special requirements for Advancement to Candidacy:**

1. Completion of university requirements as listed in advancement to candidacy section as stated in the catalog.
2. Selection of master's program committee members as stated elsewhere in this catalog. See Approved Third Member Policy.

## **Exit Requirements:**

1. Successful completion of all coursework and of a portfolio, written, and interview assessment process focused on a synthesis of course content.
2. Successful completion of the research report and final oral presentation.

## **Research Report**

A master's research report should make an original and constructive contribution to the field of mathematics teaching and learning, at least in exposition if not in new understanding. To this end, a research report should demonstrate:

1. a mastery of a substantial body of mathematics content knowledge for teaching,
2. the ability to research and synthesize the literature on mathematics teaching and learning,
3. application of understanding in these areas by designing and conducting an applied research project in mathematics teaching and learning, and
4. the ability to present the research report clearly.

The final written description of the research report and its results must be in APA format.

## **Final Oral Presentation (required for Master of Arts in Teaching K-9 Mathematics)**

Each student shall complete a final oral presentation conducted by the chair of the candidate's master's program committee. The master's program committee will consist of two faculty members representing the interdisciplinary content of the student's program, and a third member approved by the Graduate Office. The student will answer questions on his report posed by the committee. The final oral presentation will be open to all interested faculty and students and will be open to questions by outside members at the discretion of the committee.

## **For more information, please contact:**

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