

Masters of Education in Mathematics (M.Ed.)

Major Sequence and Degree Requirements

Requirements: minimum 33-36 semester hours

I. Required Mathematics Proficiency Demonstrated mathematical proficiency is required for the degree. Students who enter the program having earned a grade of A or B in the following undergraduate courses (or their equivalent) are considered to have met this requirement: <ul style="list-style-type: none">• _____ MATH 333 Introduction to Probability and Statistics• _____ MATH 322 Linear Algebra I• _____ MATH 345 Abstract Algebra I• _____ MATH 464 Real Analysis I <p style="text-align: center;"><i>and</i></p> <ul style="list-style-type: none">• _____ MATH 353 Survey of Geometry<i>or</i>• _____ MATH 355 Transformational Geometry	IV. Mathematics Education Courses (minimum 3 courses) <i>MATH</i> _____. <i>MATH</i> _____. <i>MATH</i> _____. NOTE: <ul style="list-style-type: none">• Students may elect MATH 697 or 698 more than once, provided that the topics are different.
II. Professional Core (3 courses) 1. _____ MATH 535 or _____ EDFN 601 <i>and</i> 2. PSYC _____ or EDFN _____. <i>and</i> 3. EDFN _____.	V. Degree Qualifying Review Degree candidacy will be granted to those students who have fulfilled the mathematics proficiency requirement and have completed at least 9 semester hours of course work at the 510 level or higher with grades of A or B, including one course from each of categories III and IV above.
III. Mathematics courses (minimum 4 courses) At least 6 s.h. numbered 510 or higher: <i>MATH</i> _____. <i>MATH</i> _____. <i>MATH</i> _____. <i>MATH</i> _____. NOTES: <ul style="list-style-type: none">• MATH 535 may not be double-counted under blocks II, III, or VII.• Credits earned in 50X-numbered courses may be applied in block III provided the student earns a grade of A or B.• Students may elect MATH 695 or 696 more than once, provided that the topics are different.	VI. Final Options (Select One) _____ Option 1. <u>Non-Thesis</u> (6 semester hours minimum required) <i>MATH</i> _____. <i>MATH</i> _____. _____ Option 2. <u>Thesis</u> (3 semester hours minimum required) _____ MATH 699 Thesis

Courses Satisfying Requirements

I. Required Mathematics Proficiency	III. Mathematics courses (minimum 4 courses)
<p>Demonstrated mathematical proficiency is required for the degree. Students who enter the program having earned a grade of A or B in the following undergraduate courses (or their equivalent) are considered to have met this requirement:</p> <ul style="list-style-type: none">• MATH 333 Introduction to Probability and Statistics• MATH 322 Linear Algebra I• MATH 345 Abstract Algebra I• MATH 464 Real Analysis I <p style="text-align: center;"><i>and</i></p> <ul style="list-style-type: none">• MATH 353 Survey of Geometry <p style="text-align: center;"><i>or</i></p> <ul style="list-style-type: none">• MATH 355 Transformational Geometry	<p><u>At least 6 s.h. numbered 510 or higher:</u></p> <ul style="list-style-type: none">• MATH 502 Linear Algebra for Teachers• MATH 503 Probability and Statistics for Teachers• MATH 504 Modern Algebra for Teachers• MATH 505 Transformational Geometry for Teachers• MATH 506 Modern Analysis for Teachers• MATH 520 Logic and the Foundations of Mathematics• MATH 525 Axiomatic Development of Number Systems• MATH 535 Statistical Methods I• MATH 536 Statistical Methods II• MATH 566 Complex Variables• MATH 577 Problems in Applied Mathematics• MATH 592 Graph Theory• MATH 642 Linear Algebra• MATH 645 Abstract Algebra• MATH 650 Topics in Geometry• MATH 664 Real Variables• MATH 670 Operations Research• MATH 675 Numerical Analysis• MATH 683 Topology• MATH 691 Combinatorics• MATH 693 Number Theory• MATH 695 Topics in Mathematics• MATH 696 Independent Study in Mathematics
<p>II. Professional Core (3 courses)</p> <p>1. EDFN 601: Methods of Research (Note: MATH 535 may be substituted for EDFN 601)</p> <p style="text-align: center;"><i>and</i></p> <p>2. One of the following:</p> <ul style="list-style-type: none">• PSYC 525 : Advanced Developmental Psychology• PSYC 526: Advanced Adolescent Psychology• EDFN 545: Advanced Educational Psychology• PSYC 625: Human Growth and Development <p style="text-align: center;"><i>and</i></p> <p>3. One of the following:</p> <ul style="list-style-type: none">• EDFN 511: Comparative Education• EDFN 590: Social Foundations of Education• EDFN 603: Philosophy of Education• EDFN 604: Education and Public Policy	<p>IV. Mathematics Education Courses (minimum 3 courses)</p> <ul style="list-style-type: none">• MATH 603 History of Mathematics• MATH 610 Problem Solving Seminar• MATH 611 Psychology of Learning Mathematics• MATH 612 Diagnostic and Prescriptive Mathematics• MATH 614 Current Issues in Middle School Mathematics• MATH 615 Current Issues in Secondary School Mathematics• MATH 616 Teaching Advanced Placement (AP) Calculus in Secondary School• MATH 617 Curricular Innovations in Middle & Secondary School Mathematics• MATH 672 Mathematical Modeling in the Secondary School Curriculum• MATH 679 Using Technology in Secondary School Mathematics• MATH 690 Topics in Discrete Mathematics for Teachers• MATH 697 Topics in Mathematics Education• MATH 698 Independent Study in Mathematics Education (1-3s.h.)