

MATHEMATICS

Degrees: Master of Science, Master of Arts in Teaching
 Department: Mathematics and Statistics
 Building 38, Room 135A
 (850) 474-2276
 mathstat@uwf.edu
 College: Arts and Sciences

The M.S. and M.A.T. programs offer students who hold a bachelor's degree in mathematics, statistics or related fields an opportunity to broaden their knowledge in several fields of mathematics, statistics, and their applications. The Statistics Specialization emphasizes the use, adoption, and development of statistical methods and state-of-the-art computer technology in the analysis of data from problems in all fields of study.

The M.S. program is designed for students seeking careers in science, business, industry, or government; for students who want to teach at the community college level; or for students who plan to pursue doctoral studies. The M.S. is offered with or without a thesis. The M.A.T. program is open to all B.S./B.A. graduates who have at least two courses in mathematics beyond the calculus sequence. Candidates who do not hold a certificate to teach secondary school mathematics may be required to take more course work in addition to the M.A.T. requirements to be certified. It offers additional course work to broaden and deepen the student's background in mathematics and statistics and in the teaching of mathematics.

In addition to general University requirements, students seeking the master's degree are required to maintain a 3.00 average in all university work undertaken in connection with the degree.

Course descriptions are listed alphabetically by prefix in the back of this catalog.

MASTER OF SCIENCE

Each student must complete a minimum of 30 semester hours of approved course work. For the degree with thesis, 6 semester hours of 6000-level credit will be awarded for the thesis. For the degree without thesis, a proseminar (1 semester hour) is required in which the candidate will investigate and make an oral presentation of topics in mathematics or statistics. All candidates will take and pass a comprehensive examination covering the graduate core.

MATHEMATICAL SCIENCES SPECIALIZATION

FOUNDATIONAL PROFICIENCIES

MAA 4212	Advanced Topics in Multi-Variable Calculus	..... 3
MAD 4401	Numerical Analysis	..... 3
MAP 2302	Differential Equations 3
MAS 3105	Linear Algebra 3

STA 3162C	Applied Statistics 4
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DEGREE REQUIREMENTS

Core Requirements (12 sh)

MAA 5404	Analytic Functions 3
MAD 6405	Numerical Analysis I	..... 3
MAP 6108	Mathematical Modeling and Initial and Boundary Value Problems	..... 3
MAS 5107	Matrix Theory	..... 3

Other Requirements (18-19 sh)

MAT 6930	Proseminar in Mathematics	..... 1
	Math/Stat Electives	..... 18

Candidates writing a thesis may substitute 6 semester hours of thesis research for electives and are not required to take MAT 6930.

APPLIED STATISTICS/STATISTICAL QUALITY CONTROL SPECIALIZATION

FOUNDATIONAL PROFICIENCIES

MAA 4212	Advanced Topics in Multi-Variable Calculus	..... 3
MAS 3105	Linear Algebra	..... 3
STA 3162C	Applied Statistics	..... 4
STA 4321	Introduction to Mathematical Statistics I	..... 3

DEGREE REQUIREMENTS

Core Requirements (12 sh)

STA 5206	Analysis of Variance	..... 3
STA 5207	Applied Regression Analysis	..... 3
STA 5326	Mathematical Statistics	..... 3
STA 6246	Design & Analysis of Experiments	..... 3

Other Requirements (18-19 sh)

STA 6930	Proseminar in Statistics	..... 1
	Math/Stat Electives	..... 18

Candidates writing a thesis may substitute 6 semester hours of thesis research for electives and are not required to take MAT 6930.

MASTER OF ARTS IN TEACHING

Each student must complete a minimum of 34 semester hours of approved course work. A proseminar (1 semester hour) is required in which the student will investigate and make an oral presentation of topics in mathematics education.

A degree with thesis is not available for the Master of Arts in Teaching. Each candidate will pass a comprehensive examination covering the graduate core except MAE 6655.

FOUNDATIONAL PROFICIENCIES

MAS 3105	Linear Algebra	..... 3
MTG 3212	Modern Geometry	..... 3
STA 3162C	Applied Statistics	..... 4

DEGREE REQUIREMENTS

Core Requirements (15 sh)

MAA 6230	Topics in Analysis	..... 3
MAE 6339	Teaching Algebraic & Geometric Concepts	..... 3
MAE 6655	Computer Applications in Secondary	..... 3

	School Mathematics	3
MAE 6865	Using History of Mathematics to Teach Mathematics	3
MAS 5311	Topics in Algebra	3

Other Requirements (10 sh)

MAE 6930	Proseminar in Mathematics Education	1
	Math/Stat Electives	9

Professional Education Common Core (9 sh)

(taken in sequence):

EDF 6602	Trends and Issues in Education: Social, Multicultural, Historical & Philosophical Analysis	3
EDF 6218	Current Issues in Student Development and Learning	3
EDF 6481	Educational Research	3

Only two courses below the 5000 level may be included in the graduate program.