# Mathematics, MS

A total of 32 semester hours, this program offers students with a bachelor's degree in mathematics or a related field an opportunity to broaden their knowledge in the several fields of mathematics and its applications. The program is designed to prepare graduates for careers in business, industry, or government. Previous course work will be evaluated to determine proficiency in certain content areas and degree plan may be tailored accordingly. In some cases, a student may be required to take an assessment exam to determine content and knowledge proficiency. No course can be used to satisfy both a requirement and an elective. To qualify for degree conferral, students must obtain a minimum cumulative average of 3.000, equivalent to a grade of B.

#### **Program Requirements**

Complete all courses and requirements listed below unless otherwise indicated.

## **Core Requirements**

Code	Title	Hours		
Algebra 1 and Analysis 1				
MATH 5101	Analysis 1: Functions of One Variable	4		
or MATH 5102	Analysis 2: Functions of Several Variables			
MATH 5111	Algebra 1	4		
or MATH 5112	Algebra 2			
Algebra 2 and Analysis 2				
MATH 5102	Analysis 2: Functions of Several Variables	4		
Complete 4 semester hours from the following:				
MATH 5112	Algebra 2			
Elective chosen from the list below				

#### **Electives**

(	Code	Title	Hours
(	Complete 16 semester hours from the follow	ving:	16
	MATH 7202	Partial Differential Equations 1	
	MATH 7203	Numerical Analysis 1	
	MATH 7205	Numerical Analysis 2	
	MATH 7221	Topology 2	
	MATH 7233	Graph Theory	
	MATH 7234	Optimization and Complexity	
	MATH 7241	Probability 1	
	MATH 7301	Functional Analysis	
	MATH 7341	Probability 2	
	MATH 7342	Mathematical Statistics	
	MATH 7343	Applied Statistics	
	MATH 7344	Regression, ANOVA, and Design	
	MATH 7349	Stochastic Calculus and Introduction to No-Arbitrage Finance	

## **Program Credit/GPA Requirements**

32 total semester hours required Minimum 3.000 GPA required