## 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 |  | 4 |
| MATH 5112 | Algebra 2 |  |
| Elective chosen from the list below |  |  |

## Electives

Code Title Hours

Complete 16 semester hours from the following: 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

