Mathematics, MS

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.

Program Requirements

- Concentrations and course offerings may vary by campus and/or by program modality. Please consult with your advisor or admissions coach for the course availability each term at your campus or within your program modality.
- Certain options within the program may be required at certain campuses or for certain program modalities. Please consult with your advisor or admissions coach for requirements at your campus or for your program modality.

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 |
| MATH 5111 | Algebra 1 | 4 |
| Algebra 2 and Analysis 2 | | |
| MATH 5102 | Analysis 2: Functions of Several Variables | 4 |
| MATH 5112 | Algebra 2 | 4 |

| Electives | | |
|--|--|-------|
| Code | Title | Hours |
| Complete 16 semester hours from the follow | wing; no course can be used to satisfy both a requirement and an elective: | 16 |
| MATH 5121 | Topology 1 | |
| MATH 5122 | Geometry 1 | |
| MATH 7202 | Partial Differential Equations 1 | |
| MATH 7203 | Numerical Analysis 1 | |
| MATH 7205 | Numerical Analysis 2 | |
| MATH 7221 | Topology 2 | |
| MATH 7223 | Riemannian Optimization | |
| MATH 7233 | Graph Theory | |
| MATH 7234 | Optimization and Complexity | |
| MATH 7241 | Probability 1 | |
| MATH 7243 | Machine Learning and Statistical Learning Theory 1 | |
| MATH 7311 | Commutative Algebra | |
| MATH 7321 | Topology 3 | |
| MATH 7339 | Machine Learning and Statistical Learning Theory 2 | |
| MATH 7341 | Probability 2 | |
| MATH 7342 | Mathematical Statistics | |
| MATH 7343 | Applied Statistics | |
| MATH 7344 | Regression, ANOVA, and Design | |

Program Credit/GPA Requirements

32 total semester hours required Minimum 3.000 GPA required