

**Master of Sciences Degree Mathematical Sciences
Department of Mathematics and Statistics**

The M.S. program offers students who hold the bachelors in mathematics, statistics or related fields an opportunity to broaden their knowledge in several fields of mathematics, statistics, and their applications. The M.S. program is designed for students seeking careers in science, business, industry, or government; for students who want to teach in high schools or at the community college level; or for students who plan to pursue doctoral studies. The M.S. program offered by the Department of Mathematics and Statistics permits students considerable flexibility in choosing courses. For example, students who want to seeking careers in financial/investment industries, banks, insurance companies, or government may choose more statistics courses that emphasize 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.

Program Requirements

Each student must complete a minimum 30-31 semester hours (sh) of approved course work. For the degree with thesis, 6 sh of 6000 level credits will be awarded for the thesis. For the degree without thesis, a proseminar (1 semester hour) is required. All candidates will take and pass a comprehensive examination covering the graduate core.

Foundational Proficiencies:

MAD 4401 Numerical Analysis or MAA 4212 Advanced Cal II	3
MAS 3105 Linear Algebra	3
MAP 2302 Differential Equations	3
STA 3162C Applied Statistics	4

Core Requirements:

MAS 5107 Matrix Theory	3
STA 5326 Math Stat II	3
Proseminar (without thesis)	1

Other Requirements:

Students will take 24sh math/stat graduate courses approved by the department that at least 15 sh should be at 6000-level. Only two approved courses below the 5000 level may be included in the graduate program.