

# STATISTICS, EMPHASIS

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## Program Description

An area of emphasis in statistics is offered in the Department of Mathematics. The curriculum for the Master of Arts in Mathematics with an Area of Emphasis in Statistics prepares students with a solid background in both theoretical and applied statistics for positions in industry, government agencies, or business; for further graduate study at the doctoral level; and for teaching positions at the secondary or two-year college level.

## Program Requirements

The Area of Emphasis in Statistics is an optional addition to the M.A. in Mathematics degree. To earn the Area of Emphasis in Statistics, students must complete the requirements for the M.A. in Mathematics degree, including at least 36 credit hours. The courses for the Area of Emphasis in Statistics can come from these 36 credit hours, and can also be used to simultaneously meet requirements for the M.A. degree. In some cases, additional hours may be required to meet the requirements of the Area of Emphasis in Statistics as well as the M.A. in Mathematics degree.

To earn the Area of Emphasis in Statistics:

- The student must take STA 512: Regression Analysis, STA 513: Experimental Design, STA 661: Advanced Mathematical Statistics and STA 662: Multivariable Mathematical Statistics.
- If the student chooses to take a comprehensive oral exam, the student must take at least 18 credit hours in probability and statistics courses. At least two of the 600-level courses selected for the oral exam must be in the area of probability and statistics.
- If the student chooses to write a thesis, the student must take at least 15 credit hours of probability and statistics courses in addition to at least three hours of thesis credit. The thesis topic must be related to probability and statistics.
- Students who earn the Area of Emphasis in Statistics must have at least 12 hours of MTH prefix courses on their plan of study.
- Probability and statistics courses include courses with the STA prefix, MTH 650: Real Variables 1, and MTH special topics and independent study courses approved by the Graduate Director.