

MASTERS OF SCIENCE IN MATHEMATICS & STATISTICS

Mission Statement

The Department of Mathematics and Statistics strives to provide quality undergraduate and graduate education in Mathematics and Statistics and its applications, and to contribute to the community, region and profession through research and service.

Student Learning Outcomes

UWF Mathematics and Statistics graduates with MS degree should be able to do the following:

Content

- Describe and apply principles of abstract mathematics, applied mathematics, or statistics by deriving and proving theorems, or modeling real life situations.
- Solve conceptual problems that require writing and evaluating proofs in mathematics and statistics

Critical Thinking

- Analyze the essentials of a problem logically and independently.
- Use mathematical or statistical software, and other information technology, appropriately to conduct research.

Communication

- Write coherent and accurate reports of mathematical and statistical processes and problems.
- Deliver oral presentations that explain mathematical concepts and processes accurately and effectively.

Integrity/Values

- Demonstrate honesty and integrity in project work and research.

Assessment of Student Learning Outcomes

Program SLOs will be assessed using selected student work in core courses and the Proseminar or Thesis project. Selected core courses are Matrix Theory (MAS5145) and Mathematical Statistics 2 (STA5326). Within these courses, exam questions and projects are used to assess program level outcomes.

All student work in Mathematical Sciences will culminate in either a thesis or proseminar. In either case, students will conduct research under a faculty's guidance. The proseminar is for one semester while the thesis lasts at least two semesters. Students will choose a topic in mathematics or statistics. Students will meet with their advisor regularly to report progress and seek advice. By the end of the project, students will give an oral presentation to students and faculty as well as submit a written report based on research and findings.

The proseminar and thesis are intended to give opportunities to integrate the skills and knowledge from the program and to learn effective communication skills within mathematics and statistics.

Job Prospects

Teaching:

Students can find teaching jobs easily in high schools/colleges since math teachers are needed all over the nation.

Service in government and military bases:

Government agencies and military bases employ mathematicians for programming, planning and development services in agriculture, labor, education, and the census.

Service in private sectors:

Private sectors hire mathematicians in management, marketing, engineering, insurance, computer programming, product quality, medicine and pharmaceutical research, medical device research, transportation, insurance, computer and data processing services, and risk assessment.

Supporting roles in the social, biological, and physical sciences