

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

- Recognize and apply principles of abstract mathematics
- Describe and use principles of computational and applied mathematics
- Recognize and use principles of theoretical and applied statistics
- Identify career options related to training in math and statistics

Critical Thinking

- Analyze the essentials of a problem logically and independently
- Choose and execute calculation and manipulation strategies that are relevant to mathematics with relatively little guidance
- Select and apply appropriate mathematical tools and techniques
- Solve mathematical problems
- Use information technology appropriately to conduct research
- Transfer knowledge from one context to another

Communication

- Write coherent and accurate reports of mathematical processes and problems
- Deliver oral presentations that explain math concepts or defend mathematical arguments effectively and accurately

Integrity/Values

- Recognize ethical components in complex situations
- Analyze complex ethical situations and design appropriate solutions

Project Management

- Work toward solutions with persistence and relatively little guidance
- Manage time and resources effectively
- Collaborate with team members smoothly and effectively

Teaching Skills

- Plan and execute math course activities appropriate for secondary and higher education settings
- Manage classroom dynamics to promote student learning

Assessment of Student Learning Outcomes

Every student will take a comprehensive exam on the core courses. A committee will be formed to grade the exam. A student must pass the exam to graduate. If a student chooses the thesis option, the student will conduct research under a faculty's direction and with the help of a thesis committee. The student will defend his/her thesis in the last semester in the program. The thesis committee will decide if the student passes or fails. If a student chooses non-thesis option, the student will register for one credit hour of proseminar (capstone course) after the student successfully completes at least 15 credit hours. The student will conduct research under a faculty's guidance in one semester. The faculty will choose a topic for the student in mathematics or statistics. The student will meet with the faculty regularly to report the progress and seek advice. By the end of the semester, the student will give an oral presentation to students and faculty, and submit a written report based on the research and findings. A Committee will be formed to evaluate the student's presentation and report. A grade of "S" or "U" will be given by the Committee.

Job Prospects for Mathematics & Statistics Graduates

Teaching:

Students can find teaching jobs easily in high schools and 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.

Find Out More about a Masters of Mathematics at UWF:

<http://uwf.edu/mathstat/>