Program: Applied Mathematical Science
Major: Applied Mathematical Science - Mathematics
Degree: Master of Science (M.S.)
Dept: Mathematics and Statistics
College: Mathematics and Science
Major Code: 6621

Applied Mathematical Science – Mathematics, M.S.
This major is designed to prepare students to meet the demands of industry, business, and government for individuals with expertise in the applications of the mathematical sciences. While ensuring sound mathematical training, the degree program concentrates on the development of widely applicable intellectual skills and provides experience with concrete problems.

Graduate Advisor (Math): **Dr. Brittany Bannish**
Email: bbannish@uco.edu
Office: STEM 246
Phone: 405 - 974 - 5441

Admission Requirements

Submit the following items to:

Jackson College of Graduate Studies
100 N. University Drive, NUC 404
Edmond, OK 73034

- Online application for admission (www.uco.edu/graduate/). Official copies of undergraduate and graduate transcripts from each institution attended with all degrees posted. All transcripts must be from accredited institutions. Undergraduate transcripts must show:
  - A minimal 3.00 GPA overall and 3.00 GPA in the last 60 hours attempted.
  - Completion of the following prerequisite courses: Matrix Algebra or Linear Algebra, Differential Equations, and Statistical Methods I.
- Students with a native language other than English must submit evidence of English language proficiency. See Admission to Graduate Studies - English Language Proficiency (pp. 17-18).

**Students falling below these standards may qualify for conditional admission. See Admission to Graduate Studies (p.17).*

Accelerated Degree Pathway (ADP) Requirements

Qualifying current UCO undergraduate students seeking an Accelerated Degree Pathway (ADP) must abide by the policies and procedures outlined within the Graduate Catalog. Accelerated pathways are only available in approved bachelor's and master's degree programs (see Accelerated Degree Pathways on p.196).

- The undergraduate student must be pursuing an undergraduate UCO major that is designated and approved as part of the official UCO Accelerated Degree Pathway offerings.
- The undergraduate student must be classified as "senior" standing or be completing the last semester of their junior year (soon to be entering into their senior undergraduate year.
- The undergraduate student must have a minimum overall undergraduate grade point average (GPA) of 3.0 or higher and 3.0 or higher in major specific coursework; the undergraduate GPA will be verified by the student's undergraduate academic advisor and by a representative of the Jackson College of Graduate Studies.

Other Requirements

- Plan of Study. Each student must file a plan of study with their graduate program advisor and the Jackson College of Graduate Studies (JCGS) by the end of the first semester of graduate work. The plan must be signed and dated by the student and the graduate program advisor before it can be considered official.
- Academic Standards. Meet the following course work standards:
  - Overall GPA of 3.00 or higher.
  - No more than six hours of "C" or lower.
  - No more than six advisor-approved hours from traditional correspondence courses.
- Competency Examination. Achieve a minimum score of "pass" on competency exam.
  NOTE: Request for re-examination will not be granted more than one time.
- Thesis (optional). If applicable, complete an acceptable thesis and successfully defend it in public. Submit two paper copies of the thesis and one electronic copy to the library through Proquest and submit the thesis' title page, original signature page, summary, and abstract page to the JCGS.
- Final Requirements. Apply for graduation through the JCGS by advertised deadline.

Graduation Requirements

Required Courses.....18 Hours

Course Prefix	Course No.	Course Title
MATH	5113	Operations Research 1
MATH	5143	Advanced Calculus for Applications 1
MATH	5263	Numerical Linear Algebra, **OR**
MATH	5373	Applied Numerical Analysis
MATH	5453	Mathematical Modeling
MATH	5853	Introduction to Graduate Research
STAT	5263	Computer Applications in Statistics

Guided Electives.....15 Hours

From MATH or STAT Courses

Thesis, Project, or Additional Course Work.....3 Hours

Course Prefix	Course No.	Course Title
MATH	5980	Graduate Project, **OR**
MATH	5990	Thesis, **OR**
MATH	5xxx	Graduate MATH Course, **OR**
STAT	5xxx	Graduate STAT Course

TOTAL HOURS REQUIRED ..... 36 HOURS

Accelerated Degree Pathway: BS to MS

Students in the B.S. Mathematics - Applied Mathematics program who are accepted into the Accelerated Degree Pathway for the M.S. in Applied Mathematical Science - Mathematics program may take 5000-level courses up to a maximum of 9 hours during the senior year of the bachelor's degree. These courses will count toward both the B.S. and M.S. degrees. The approved graduate courses are MATH 5113, 5123, 5263, 5373, 5453, 5910, and STAT 5213 and 5263. Students are restricted to taking only one cross-listed 5910 course while classified as an ADP student.

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Accelerated Degree Pathway: BS to MS

Students in the B.S. Mathematics - Statistics program who are accepted into the Accelerated Degree Pathway for the M.S. in Applied Mathematical Science - Mathematics program may take 5000-level courses up to a maximum of 9 hours during the senior year of the bachelor's degree. These courses will count toward both the B.S. and M.S. degrees. The approved graduate courses are MATH 5113 and 5910, STAT 5103, 5123, 5213, 5263, 5303, 5413, 5533, and 5910. Students are restricted to taking only one cross-listed 5910 course while classified as an ADP student.

Accelerated Degree Pathway: BS to MS

Students in the B.S. Actuarial Science program who are accepted into the Accelerated Degree Pathway for the M.S. in Applied Mathematical Science - Mathematics program may take 5000-level courses up to a maximum of 9 hours during the senior year of the bachelor's degree. These courses will count toward both the B.S. and M.S. degrees. The approved graduate courses are MATH 5113 and 5910, STAT 5103, 5123, 5213, 5263, 5303, 5413, 5533, and 5910. Students are restricted to taking only one cross-listed 5910 course while classified as an ADP student.