Mathematics — MAM, MS, PhD

Degree Programs

- Applied Mathematics Non-Thesis — MAM (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/mathematicsandstatisticsmsmammpsphd_major/appliedmathemicsnontheisis_mam/)
- Mathematics Option Thesis — MS (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/mathematicsandstatisticsmsmammpsphd_major/mathematics_ms/)
- Mathematics — PhD (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/mathematicsandstatisticsmsmammpsphd_major/mathematics_phd/)

Graduate Certificate

- Data Science (http://bulletin.auburn.edu/thegraduateschool/graduatedegreesoffered/datascience_gcrt/)

The Department of Mathematics and Statistics offers programs leading to the master of science and doctor of philosophy in both pure and applied mathematics and non-thesis master's degrees in both applied mathematics and statistics. In addition, the department regularly offers actuarial science courses that are approved by both the Society of Actuaries and the Casualty Actuarial Society; they are designed to provide the background and material covered in the first three actuarial exams.

The master of applied mathematics gives students a strong foundation in one of several fundamental areas of applied mathematics. It is a flexible degree with courses being chosen in conjunction with the advisory committee, some of which may be relevant courses offered by other departments. The master of science degree in mathematics develops both content knowledge of the student through coursework, and provides the opportunity to delve deeper into an area of mathematics through the writing of a thesis. The Ph.D. is designed to give students a thorough understanding of a broad body of knowledge related to their field of study, as well as to develop their research capabilities. Ph.D. students are required to pass one oral and three written preliminary examinations. A statistics concentration is available for the Ph.D. degree (see Statistics).

The internationally known faculty of around 50 professors work in areas of algebra, analysis, applied mathematics, discrete mathematics, geometry, linear algebra, logic, numerical analysis, partial differential equations, probability, set theory, statistics and topology. Some professors maintain applied research programs associated with several government and industrial laboratories, and one holds the Associate of the Society of Actuaries designation.

Admission to the program is based on a student’s undergraduate record, three letters of recommendation from former teachers, GRE scores and graduate GPA (for doctoral students). The GRE subject test is not required. A bachelor’s degree in mathematics is not required, but students without such a background may be expected to take additional courses to make up for deficiencies. The department follows the guidelines for graduate degrees set forth in this *Bulletin*. Doctoral students must satisfy the departmental preliminary examination requirement to continue their teaching assistantship. Course work in mathematics may be transferred from other institutions, subject to university limitations (See math.auburn.edu (https://www.auburn.edu/cosam/departments/math/)).

Most students in the program are supported financially during their studies through Graduate Teaching Assistantships and through tuition waivers given to all teaching assistants (with some restrictions). The Baskervill, Fitzpatrick, and Haynesworth Fellowships (around $5,000 each) are awarded annually to qualified students in the Department of Mathematics and Statistics. The department occasionally has Graduate Research Assistantships available in conjunction with departmental contractual research programs. The department requires that all international GTAs who have responsibility for teaching a class be proficient in English, passing the test of spoken English.

Code	Title	Hours
MS_MATH		
MATH 7990	Research And Thesis	4
20 Credits in MATH 6000-8999		20
6 Credits in @ 6000-8999 (Approved Electives)		6
Total Hours		**30**

Code	Title	Hours
PhD_MATH		
MATH 8990	Research And Dissertation	10

11 Credits in MATH 6000-8999	11
39 Credits in @ 6000-8999 (Approved Electives)	39
Total Hours	**60**