

Graduate Certificate in Applied and Computational Mathematics

The graduate certificate program in Applied and Computational Mathematics will provide students from diverse backgrounds well-rounded training in core mathematical and computational skills useful for careers in research, teaching, or industrial work in which advanced mathematics or large-scale computation is used in an essential way. The successful students will acquire strong competences in mathematical modeling and analysis, numerical algorithms development, and computational programming.

Admission Requirements

Admission to this certificate program is open to all qualified students holding bachelor's degrees in various fields such as engineering, natural science, and secondary education. Prerequisites to admission include Matrix Algebra (MATH 3323 or MATH 4326) and Differential Equations (MATH 2326), or their equivalents, with a minimum grade of "B" in both classes.

Degree Requirements

This certificate program requires the completion of 15 credit hours of courses. This includes 1 required course, MATH 5329 Numerical Analysis, 3 elective courses from a prescribed list, and a 3 credit hour course approved by the graduate advisor.

Degree Plan

Required Credits: 15

Code	Title	Hours
Required Course		
MATH 5329	Numerical Analysis	3
Prescribed Elective Courses		
Select nine hours of the following		9
MATH 5311	Topics in Applied Mathematics	
MATH 5330	Comp Methods of Linear Algebra	
MATH 5335	Techniques in Optimization	
MATH 5343	Numer Solution Part Diff Equat	
Select three hours from free electives		3
MATH 5XXX/ STAT 5XXX Any course from the prescribed elective courses or a graduate-level applied MATH/STAT course.		
Total Hours		15