



2019-2020

COMPUTATIONAL MATHEMATICS MAJOR, B.A.

Mathematical Department; School of Science, Health & Mathematics

Computational Mathematics involves an emphasis on applied mathematics with the computational and computer programming skills necessary to solve practical problems. These skills are in high demand in the private sector and in government employment. Study in computational science prepares students to enter a career in industry, government, or business immediately upon graduation or to enter graduate school in computational science, or related areas of applied mathematics such as statistics, management science, operations research, actuarial science or computational biology. The major is designed to allow the student flexibility in choosing a minor area of study as an application of the computational and mathematical skills learned in Department courses.

To graduate must complete all major requirements, foundational requirements, and additional electives needed for 124 hour minimum degree requirement.

MAJOR REQUIREMENTS (55)

__ 4	CSC	121	Data Science I	__ Lab	
__ 4	CSC	122	Data Science II	__ Lab	
__ 4	MAT	181	Calculus I	__ Lab	
__ 4	MAT	182	Calculus II	__ Lab	
__ 4	MAT	183	Calculus III	__ Lab	
__ 3	MAT	241	Logic & Sets		
__ 3	MAT	252	Diff Equations/Modeling		
__ 3	MAT	271	Linear Algebra		
__ 3	MAT	281	Probability		
__ 3	MAT	351	Applied Mathematics I		
__ 3	MAT	352	Applied Mathematics II		
__ 3	MAT	442	Numerical Analysis		
__ 1	MAT	475	Senior Seminar		
__ 3	MAT	482	Complex Analysis		
__ 5	PHY	211	Gen Physics I	__ Lab	__ Recitation
__ 5	PHY	212	Gen Physics II	__ Lab	__ Recitation

PLUS FOUNDATIONAL REQUIREMENTS (42)

(3 hours Math and 4 hours Science satisfied by required major courses.)

Plus electives needed for the 124 hour degree requirement (27)