

MATHEMATICS - BA

St. Kate's mathematics majors will study mathematics in an environment that stresses close student-faculty interaction and individual support. Faculty members will encourage students to take an active role in their educational experiences and will foster a cooperative learning environment. Students will have the opportunity to work as a tutor or teaching assistant in the Mathematical Sciences Department and collaborate with faculty members on research and projects in both mathematics and computer science. Students will also have opportunities to participate in mathematics contests such as the Putnam, the NCS-MAA team competition, and the Konhauser team competition.

The curriculum includes courses in mathematics and computer science. If a student decides to pursue a B.S., she will be required to take one full year of either physics or chemistry.

Mathematics majors have become lawyers, senior research associates, statistical consultants, vice presidents of corporations, teachers, programmers, analysts, actuaries, physicists, engineers, and Fulbright scholars.

This major is offered in the College for Women only.

Curriculum

Code	Title	Credits
Required Courses		
MATH 1130	Calculus I	4
MATH 1140	Calculus II	4
MATH 1800	Discrete Mathematics	4
MATH 2050	Linear Algebra	4
MATH 2060	Calculus III	4
MATH 4850W	Senior Seminar	2
Choose two courses from:		8
MATH 2600	Differential Equations	
MATH 3010	Abstract Algebra	
STAT 2090	Statistical Modeling	
MATH 4994	Topics ¹	
DSCI 3300	Introduction to Machine Learning for Data Science	
Or other courses approved by Division Chair		
Total Credits		30

¹ Topics courses must include either Real Analysis or Complex Variables

Code	Title	Credits
Required Supporting Courses (must be taken for a letter grade)		
CSCI 1110	Algorithms and Computer Programming I with Lab ¹	4
STAT 1090	Statistical Analysis	4
One of the following:		4
CHEM 1110	General Chemistry I with Lab	
ECON 2610	Principles of Microeconomics	
ECON 2620	Principles of Macroeconomics	

PHYS 1110	Introductory Physics I with Lab	
Total Credits		12

¹ Must be completed by the end of the sophomore year or the first year for a student transferring as a junior

Course work in physics, economics and logic (philosophy department) is recommended.

Mathematics majors satisfy the Writing Requirement for Majors by completing MATH 4XXXW Senior Seminar. They complete the Liberal Arts and Sciences Core Writing Requirement with three other writing-intensive courses (CORE 1000W The Reflective Woman, CORE 3990W Global Search for Justice, and any other writing-intensive course in another department).

		Freshman	
		Fall Credits	Spring Credits
MATH 1800		4	STAT 1090 4
CSCI 1110		4	
		8	4
		Sophomore	
		Fall Credits	Spring Credits
MATH 1130		4	MATH 1140 4
CHEM 1110, ECON 2610, PHYS 1110, or BIOL 1710		4	
		8	4
		Junior	
		Fall Credits	Spring Credits
MATH 2050		4	MATH ELEC 4
MATH 2060		4	
		8	4
		Senior	
		Fall Credits	Spring Credits
MATH ELEC			4 MATH 4954 4 or MATH 4XXXW
		4	4
Total Credits: 44			

Other courses approved by the division chair