MATHEMATICS - BS

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
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
Select three courses from:		12
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 course(s) approved by Division Chair		
Total Credits		**34**

[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
or DSCI 2100	Introduction to Programming: Applied Computing I	
STAT 1090	Statistical Analysis	4
Select One From:		
CHEM 1110 & CHEM 1120	General Chemistry I with Lab and General Chemistry II with Lab	8
or PHYS 1110 & PHYS 1120	Introductory Physics I with Lab and Introductory Physics II with Lab	
or ECON 2610 & ECON 2620	Principles of Microeconomics and Principles of Macroeconomics	
Total Credits		**16**

[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	CSCI 1110	4
MATH 1130	4	CHEM 1120, PHYS 1120, ECON 2620, or BIOL 2720	4
CHEM 1110, ECON 2610, PHYS 1110, or BIOL 1710	4	MATH 1140	4
	12		**12**

Sophomore			
Fall Credits		**Spring Credits**	
MATH 2050	4	MATH 2060	4
STAT 1090[1]	4		
	8		**4**

Junior			
Fall Credits		**Spring Credits**	
MATH ELECU	4	MATH ELECU	
	4		**0**

Senior			
Fall Credits		**Spring Credits**	
MATH ELECU		MATH 4954 or MATH 4XXXW	4
	0		**4**

Total Credits: 44

Other courses must be approved by the division chair

[1] Could take in year 1 or 2