

BACHELOR OF ARTS (B.A.) MAJOR IN MATHEMATICS

**Minimum required: 120
semester credit hours**

General Requirements

- The general education core curriculum courses are listed in the degree plan below along with the statewide component code number. See the General Education Core Curriculum (<http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum>) section of this catalog for the Texas State requirements and options in the core curriculum, including Honors courses.
- In addition to the general education core curriculum requirements, the Bachelor of Arts degree (<http://mycatalog.txstate.edu/undergraduate/degree-program-information>) (B.A.) requires three additional hours of English literature, three hours of math/science/logic/computer science courses, a minor and six hours of 2000-level modern language courses. Most students will have to complete 1410 and 1420 as prerequisites before attempting 2310.
- Nine hours of writing intensive (WI) courses are required for graduation.
- Majors must select a minor from the approved list of Undergraduate Minors (<http://www.mycatalog.txstate.edu/undergraduate/minors>).
- Majors must complete a minimum of 36 advanced hours (3000 or 4000 level courses).
- The minimum number of hours required for this degree program is 120. The number of free elective hours a student will complete depends on the number of hours a student may need to achieve the required 120 total or 36 advanced hours.

Course Requirements

		Freshman	
	First Semester Hours		Second Semester Hours
US 1100	1	MATH 2472	4
ENG 1310 (Communication Component Code 010)	3	ENG 1320 (Communication Component Code 010)	3
POSI 2310 (Government/Political Science Component Code 070)	3	HIST 1310 (American History Component Code 060)	3
COMM 1310 (Component Area Option Code 090/091)	3	Life & Physical Sciences Component Code 030	3
MATH 2471 (Mathematics Component Code 020) ¹	4	PHIL 1305 or 1320 (Language, Philosophy & Culture Component Code 040)	3
Social & Behavioral Sciences Component Code 080	3		
	17		16
		Sophomore	
	First Semester Hours		Second Semester Hours
MATH 3373	3	ART 2313, DAN 2313, MU 2313, or TH 2313 (Creative Arts Component Code 050)	3
Minor	3	MATH Advanced Elective	3

Modern Language 1410	4	CS 1428	4
Life & Physical Sciences Component Code 030	4	Modern Language 1420	4
		ENG Literature (Component Area Option Code 090/094)	3
	14		17

		Junior	
	First Semester Hours		Second Semester Hours
MATH 3377	3	MATH 3380	3
MATH 3330	3	MATH Advanced Elective	3
Minor	3	Minor	3
Modern Language 2310	3	Modern Language 2320	3
HIST 1320 (American History Component Code 060)	3	POSI 2320 (Government/Political Science Component Code 070)	3
	15		15

		Senior	
	First Semester Hours		Second Semester Hours
MATH 4330	3	MATH 4307	3
Minor	6	MATH 4315	3
BA ENG Literature	3	Minor	3
Elective	2	MATH Advanced Elective	3
	14		12

Total Hours: 120

¹ Even though MATH 2471 is the first required mathematics course, some students will need to take courses numbered below 2471. Credit examinations in MATH 1315, MATH 2417 and MATH 2471 are available.

MATH Advanced Electives

Code	Title	Hours
MATH 3305	Introduction to Probability and Statistics	3
MATH 3323	Differential Equations	3
MATH 3325	Number Systems	3
MATH 3348	Deterministic Operations Research	3
MATH 3383	Numerical Analysis I	3
MATH 3398	Discrete Mathematics II	3
MATH 4305	Probability and Statistics	3
MATH 4306	Fourier Series and Boundary Value Problems	3
MATH 4336	Studies in Applied Mathematics	3
MATH 4337A	Topological Data Analysis	3
MATH 4337B	Research in Discrete Mathematics	3
MATH 4337C	Numerical Methods for Ordinary Differential Equations	3
MATH 4350	Introduction to Combinatorics	3
MATH 4382	The Literature and Modern History of Mathematics and Its Applications	3
MATH 4383	Numerical Analysis II	3