BACHELOR OF ARTS, MAJOR IN MATHEMATICS

Code	Title	Hours
Bachelor of Arts, Major in Mathematics		
Core Curriculum (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communication)		6
Component Area II (Mathematics)		3
Component Area III (Life and Physical Science)		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option)		4
Degree Specific Requirements		
COSC 1436	Programming Fundamentals I	4
ENGL 2332	Wrld Lit I: Before 17 Century [1]	3
PHIL 2303	Critical Thinking [2]	3
PHYS 1411	Introduction To Physics I [3]	4
or PHYS 1422	Introduction To Physics II	
Science Course for Science Majors from Component Area III list		4
WOLC 1411 & WOLC 1412 & WOLC 2311 & WOLC 2312	Beginning Foreign Language I and Beginning Foreign Language II and Intermediate Foreign Language and Intermed Foreign Language II [4]	14
Major Core		
MATH 1420	Calculus I [5]	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3300	Introduction to Math Thought	3
MATH 3377	Intro to Linear Alg & Matrics	3
MATH 4361	Introductory Analysis	3
MATH 4366	Elementary Analysis	3
MATH 4371	Thry & Appl of Prob & Stat I	3
MATH 4377	Algebraic Structures	3
Major		
Advanced MATH electives [6]		12
Minor (Including 6 advanced hrs)		18
Electives (Including 6 advanced hrs)		7
Total Hours		120

[1]   ENGL 2332 satisfies three semester credit hours of the Core Curriculum requirement for Component Area IX (Component Area Option).

[2]   PHIL 2303 satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

[3]   PHYS 1411 or PHYS 1422 satisfies 4 hours of Core Curriculum requirement for Component Area III (Life and Physical Sciences)

[4]   WOLC 2311 satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).

[5]   MATH 1420 satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of Component Area IX (Component Area Option).

[6]   Advanced MATH electives do not include MATH 3379/STAT 3379.

The following courses can only be used as required advanced electives by students who are seeking elementary/middle school teacher certification:

Code	Title	Hours
Required Advanced Electives: Elementary/Middle School Teacher Certification		
MATH 3380	Historical Perspec of Math	3
MATH 3381	Intro - Foundation of Math III	3
MATH 3383	Geometric Meas./Transformation	3
MATH 3384	Foundations of Mathematics	3
MATH 3386	Fundmtls of Probability/Stats	3
MATH 3387	Problem Solving-Middle Sch Mth	3

The following courses can only be used as required advanced electives by students who are seeking secondary teacher certification:

Code	Title	Hours
Required Advanced Electives: Secondary Teacher Certification		
MATH 4384	Survey of Mathematical Ideas	3
MATH 4385	Mathematical Problem Solving	3

Notes

Students should use the minor and electives to complete the 42-advanced hour requirement for graduation.

A cumulative minimum major GA of 2.5 is required for students to graduate with a Bachelor of Science in Mathematics.

Anyone considering a degree in Mathematics should consult an advisor in the Department of Mathematics prior to registering for any courses. For more information, please, visit the Lee Drain Building, Room 420.

In order to satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science), except for the Department of Physics, the student must take classes from the following:

Courses for Science Majors

Code	Title	Hours
Course Requirements		
BIOL 1411	General Botany	4
BIOL 1413	General Zoology	4
BIOL 2401	Human Anatomy	4
CHEM 1411	General Chemistry I	4
CHEM 1412	General Chemistry II	4

Any lab course from Geology or Geography

First Year

Fall	Hours	Spring	Hours
Component Area III (Science Course for Science Major)	4	ENGL 1302[1]	3
ENGL 1301[1]	3	HIST 1302[2]	3
HIST 1301[2]	3	MATH 1430	4
MATH 1420[3]	4	PHYS 1411 or 1422[4]	4
	14		14

Second Year

Fall	Hours	Spring	Hours
MATH 2440	4	MATH 3377	3
MATH 3300	3	Minor Course	3
POLS 2305[5]	3	PHIL 2303[6]	3
WOLC 1411	4	POLS 2306[5]	3
		WOLC 1412	4
	14		16

Third Year

Fall	Hours	Spring	Hours
ENGL 2332[7]	3	COSC 1436	4

MATH 4361	3	MATH 4366	3
MATH 4371	3	MATH Advanced Elective[10]	3
Minor Course (Advanced)[8]	3	Minor Course	3
WOLC 2311[9]	3	WOLC 2312	3
	15		16

Fourth Year

Fall	Hours	Spring	Hours
Component Area V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3	MATH Advanced Elective[10]	3
MATH Advanced Elective[10]	3	MATH Advanced Elective[10]	3
MATH 4377	3	Advanced Minor Course	3
Advanced Elective	3	Minor Course	3
Minor Course	3	Advanced Elective	3
		Elective	1
	15		16

Total Hours: 120

1	Satisfies Core Curriculum requirement for Component Area I (Communications).
2	Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
3	Satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of Core Curriculum requirement for Component Area IX (Component Area Option).
4	Satisfies 4 hours of Core Curriculum requirement for Component Area III (Life and Physical Sciences).
5	Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).
6	Satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).
7	Satisfies Core Curriculum requirement for Component Area IX (Component Area Option).
8	Students should use the minor and advanced general electives to complete the 42-advanced hour requirement for graduation.
9	Satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).
10	Advanced MATH electives do not include MATH 3379/STAT 3379.

Notes

Students should use the minor and electives to complete the 42-advanced hour requirement for graduation.

A cumulative minimum major GA of 2.5 is required for students to graduate with a Bachelor of Science in Mathematics.

Anyone considering a degree in Mathematics should consult an advisor in the Department of Mathematics prior to registering for any courses. For more information, please, visit the Lee Drain Building, Room 420.

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BA in Mathematics is designed to provide graduates with the following marketable skills:

- Ability to apply appropriate mathematical methods to data and problem solving.
- Ability to learn, synthesize and explain sophisticated information.
- Proficiency in scientific computing environments, databases and programming languages, such as Matlab, Mathematica, SageMath, Excal, Java and Python.