BACHELOR OF ARTS, MAJOR IN MATHEMATICS

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-degree-in-mathematics/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

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) [1]		3
Component Area III (Life and Physical Science) [2]		8
Component Area IV (Language, Philosophy, and Culture) [3]		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) [4]		3
Component Area IX (Component Area Option) [1,5]		4
Degree Specific Requirements		
COSC 1436	Programming Fundamentals I	4
ENGL 2332	Wrld Lit I: Before 17 Century [5]	3
PHIL 2303	Critical Thinking [4]	3
PHYS 1411	Introduction To Physics I [2]	4
or PHYS 1422	Introduction To Physics II	
Courses for Science Majors (from Component Area III) [6]		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 [3]	14
Major: Foundation		
MATH 1420	Calculus I [1]	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: Prescribed Electives		
Prescribed MATH Electives [7]		12
Electives: Advanced		
Advanced Electives		7
Minor: Required		
Minor (Including 6 advanced hrs) [8,9]		18
Total Hours		**120**

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

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

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

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

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

[6]   See the Courses for Science Majors Course List (from Component Area III) below.

[7]   Prescribed MATH Electives do not include MATH 3379/STAT 3379, MATH 3380, MATH 3381, MATH 3383, MATH 3384, MATH 3386, MATH 3387, MATH 4384, and MATH 4385.

[8]   Students should use the Minor and Advanced Electives to complete the 42-advanced hour requirement for graduation.

[9]   The following minor cannot be paired with this degree program: Minor in Mathematics.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.5 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

Students should use the Minor and Advanced Electives to complete the 42-advanced hour requirement for graduation.

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:

Code	Title	Hours
Courses for Science Majors (from Component Area III) [6]		
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		

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First Year

Fall	Hours	Spring	Hours
Component Area III (Courses for Science Majors)[1]	4	ENGL 1302[2]	3
ENGL 1301[2]	3	HIST 1302[3]	3
HIST 1301[3]	3	MATH 1430	4
MATH 1420[4]	4	PHYS 1411 or 1422[5]	4
	14		**14**

Second Year

Fall	Hours	Spring	Hours
MATH 2440	4	MATH 3377	3
MATH 3300	3	Minor[7,8]	3
POLS 2305[6]	3	PHIL 2303[9]	3
WOLC 1411	4	POLS 2306[6]	3
		WOLC 1412	4
	14		**16**

Third Year

Fall	Hours	Spring	Hours
ENGL 2332[10]	3	COSC 1436	4
MATH 4361	3	MATH 4366	3
MATH 4371	3	MATH Prescribed Electives[12]	3
Minor Advanced[7,8]	3	Minor[7,8]	3
WOLC 2311[11]	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	Advanced Electives	3
MATH 4377	3	General Electives	1
MATH Prescribed Electives[12]	3	MATH Prescribed Electives[12]	6
Advanced Electives	3	Minor Advanced[7,8]	3
Minor[7,8]	3	Minor[7,8]	3
	15		**16**

Total Hours: 120

[1]	See Courses for Science Majors (from Component Area III) course list below.
[2]	Satisfies Core Curriculum requirement for Component Area I (Communications).
[3]	Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
[4]	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).
[5]	Satisfies 4 hours of Core Curriculum requirement for Component Area III (Life and Physical Sciences).
[6]	Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).
[7]	Students should use the Minor and Advanced Electives to complete the 42-advanced hour requirement for graduation.
[8]	The following minor cannot be paired with this degree program: Minor in Mathematics.
[9]	Satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).
[10]	Satisfies Core Curriculum requirement for Component Area IX (Component Area Option).
[11]	Satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).
[12]	Prescribed MATH electives do not include MATH 3379,STAT 3379 MATH 3380, MATH 3381, MATH 3383, MATH 3384, MATH 3386, MATH 3387, MATH 4384, and MATH 4385.

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Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

Students should use the Minor and Advanced Electives to complete the 42-advanced hour requirement for graduation.

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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

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, Excel, Java and Python.