BACHELOR OF SCIENCE, 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 Science, Major in Mathematics		
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)		3
Component Area IX (Component Area Option) [1]		4
Degree Specific Requirements		
Science Courses for Science Majors - Select 8 hours from the following: [2]		8
BIOL 1406 & BIOL 1407	General Biology I and General Biology II	
CHEM 1411 & CHEM 1412	General Chemistry I and General Chemistry II	
Eight hours from GEOL 1403, GEOL 1404, GEOL 1405, GEOG 1401		
COSC 1436	Programming Fundamentals I	4
ENGL 2332	World Literature I: Before the 17th Century [3]	3
or ENGL 2333	World Literature II: From the 17th Century and After	
PHYS 1411 & PHYS 1422	Introduction To Physics I and Introduction To Physics II	8
or PHYS 2426	Heat, Waves & Modern Physics	
Major: Foundation		
MATH 1420	Calculus I [1]	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3300	Introduction to Mathematics Thought	3
MATH 3376	Differential Equations	3
MATH 3377	Introduction to Linear Algebra and Matrices	3
MATH 4361	Introductory Analysis	3
MATH 4366	Elementary Analysis	3
MATH 4371	Theory and Applications of Probability and Statistics I	3
MATH 4377	Algebraic Structures	3
Major: Prescribed Electives		
Advanced MATH Electives [4]		6
Electives: General		
General Electives		13
Minor: Required		
Minor [5,6]		18
Total Hours		**120**

1. MATH 1420 satisfies the Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option).
2. Satisfies Core Curriculum requirement for Component Area III (Life and Physical Science).
3. Satisfies the Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).

[4] Advanced MATH electives do not include MATH 3363, MATH 3379/STAT 3379, MATH 3380, MATH 3381, MATH 3383, MATH 3384, MATH 3386, MATH 3387, MATH 4367, MATH 4384, and MATH 4385.
[5] Includes at least nine hours of advanced coursework.
[6] 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.

Minor includes at least nine hours of advanced coursework.

Students should use the minor and 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 in the Department of Physics, the student must take 8 semester credit hours of classes from the following:

Code	Title	Hours
Required Courses		
BIOL 1406 & BIOL 1407	General Biology I and General Biology II	8
or CHEM 1411 & CHEM 1412	General Chemistry I and General Chemistry II	

Eight hours from GEOL 1403, GEOL 1404, GEOL 1405, GEOG 1401

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First Year

Fall	Hours	Spring	Hours
Component Area III[1]		4 Component Area III[1]	4
ENGL 1301[2]		3 ENGL 1302[2]	3
HIST 1301[3]		3 HIST 1302[3]	3
MATH 1420[4]		4 MATH 1430	4
		14	**14**

Second Year

Fall	Hours	Spring	Hours
Component Area IX		3 MATH 3376	3
MATH 2440		4 MATH 3377	3
MATH 3300		3 Minor [6]	3
PHYS 1411		4 PHYS 1422 or 2426	4
POLS 2305[5]		3 POLS 2306[5]	3
		17	**16**

Third Year

Fall	Hours	Spring	Hours
COSC 1436		4 Component Area V	3
General Electives		1 ENGL 2332 or 2333[7]	3
MATH 4361		3 MATH 4366	3
MATH 4371		3 MATH Advanced Electives[8]	3
Minor [6]		3 Minor [6]	3
		14	**15**

Fourth Year

Fall	Hours	Spring	Hours
Component Area VIII		3 General Electives	3
General Electives		3 General Electives	3
MATH 4377		3 General Electives	3
MATH Advanced Electives[8]		3 Minor Advanced [6]	3
Minor Advanced [6]		3 Minor Advanced[6]	3
		15	**15**

Total Hours: 120

1 Science Course for Science Majors: BIOL 1406 and BIOL 1407 or CHEM 1411 and CHEM 1412.
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 Component Area IX (Component Area Option).
5 Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).
6 The following minor cannot be paired with this degree program: Minor in Mathematics.
7 Satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).
8 Advanced MATH electives do not include MATH 3363, MATH 3379/STAT 3379, MATH 3380, MATH 3381, MATH 3383, MATH 3384, MATH 3386, MATH 3387, MATH 4367, MATH 4384, and MATH 4385.

Notes

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Students must meet a 2.5 minimum SHSU 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.

Minor includes at least nine hours of advanced coursework.

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

- Learn, synthesize, and explain sophisticated information.
- Simplify complex problems by generating hypotheses and recognizing fundamental principles.
- Apply logic and quantitative reasoning to solve problems in science and technology.
- Perform proficiently in scientific computing environments, databases and programming languages such as Matlab, Mathematica, SageMath, Excel, Java, and Python.