

BACHELOR OF SCIENCE, MAJOR IN MATHEMATICS

Bachelor of Science, Major in Mathematics

Core Curriculum (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum)

Component Area I (Communication)	6
Component Area II (Mathematics) satisfied by major	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

Science Courses for Science Majors - Select 8 hours from the following: ² 8

BIOL 1411 & BIOL 1413	General Botany and General Zoology	
CHEM 1411 & CHEM 1412	General Chemistry I and General Chemistry II	
8 hours from GEOL 1403, GEOL 1404, GEOL 1405, GEOG 1401		
COSC 1436	Programming Fundamentals I	4
ENGL 2332	Wrld Lit I: Before 17 Century ¹	3
PHYS 1411 & PHYS 1422 or PHYS 2426	Introduction To Physics I and Introduction To Physics II Heat, Waves & Modern Physics	8

Major Core

MATH 1420	Calculus I ³	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3300	Introduction To Math Thought	3
MATH 3376	Differential Equations	3
MATH 3377	Intro To Linear Alg & Matrics	3
MATH 4366	Elementary Analysis	3
MATH 4361	Introductory Analysis	3
MATH 4371	Thry & Appl Of Prob & Stat I	3
MATH 4377	Algebraic Structures	3

Major		
Advanced MATH Electives		18
Elective		1
Minor		18
Total Hours		120

¹ ENGL 2332 satisfies the Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).

² Satisfies Core Curriculum requirement for Component Area III (life and Physical Science).

³ 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).

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

Advanced Electives for Elemntrary/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	Fundmntls 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:

Advanced Electives for Secondary Teacher Certification

MATH 4384	Survey Of Mathematical Ideas	3
MATH 4385	Mathematical Problem Solving	3

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

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:

Required Courses

BIOL 1411 & BIOL 1413 or CHEM 1411 & CHEM 1412	General Botany and General Zoology General Chemistry I and General Chemistry II	8
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Any two lab courses from Geology or Geography

First Year

Fall	Hours Spring	Hours
Component Area III - Science Course for Science Majors	4 Component Area III - Science Course for Science Majors	4
ENGL 1301 ¹	3 ENGL 1302 ¹	3
HIST 1301 ²	3 HIST 1302 ²	3
MATH 1420 ³	4 MATH 1430	4
	14	14

Second Year

Fall	Hours Spring	Hours
Component Area IX (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3 MATH 3377	3
MATH 2440	4 MATH 3376	3
MATH 3300	3 Minor Course	3
PHYS 1411	4 PHYS 1422 or 2426	4
POLS 2305 ⁴	3 POLS 2306 ⁴	3
	17	16

Third Year

Fall	Hours Spring	Hours
COSC 1436	4 Component Area V (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
Elective	1 ENGL 2332 ⁵	3
MATH 4361	3 MATH 4366	3
MATH 4371	3 MATH Advanced Elective	3
Minor Course	3 Minor Course	3
	14	15

Fourth Year

Fall	Hours Spring	Hours
MATH 4377	3 MATH Advanced Elective	3
Advanced MATH Elective	3 Minor Course	3
Class for Minor	3 Minor Course	3

Component Area VIII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3 MATH Advanced Elective	3
Advanced MATH elective	3 MATH Advanced Elective	3
	15	15

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 Component Area IX (Component Area Option).
- 4 Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).
- 5 Satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).