

# BACHELOR OF ARTS, MAJOR IN MATHEMATICS

## Bachelor of Arts, Major in Mathematics

**Core Curriculum** ([catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/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 <sup>3</sup>	3
FOLG 1411 & FOLG 1412 & FOLG 2311 & FOLG 2312	Beginning Foreign Language I and Beginning Foreign Language II and Intermediate Foreign Language and Intermed Foreign Language II <sup>1</sup>	14
PHIL 2303	Critical Thinking <sup>2</sup>	3
PHYS 1411 or PHYS 1422	Introduction To Physics I Introduction To Physics II	4
Science Courses for Science Majors from Component Area III list		8

## Major Core

MATH 1420	Calculus I <sup>3</sup>	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

MATH electives	9
Minor	18
Electives (To bring to 120 total hrs)	6

Total Hours 120

<sup>1</sup> FOLG 2311 satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).

<sup>2</sup> PHIL 2303 satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

<sup>3</sup> ENGL 2332 satisfies three semester credit hours of the Core Curriculum requirement for Component Area IX (Component Area Option).

<sup>4</sup> MATH 1420 satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour of 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:

## 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	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:

**Required Advanced Electives: Secondary Teacher Certification**

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

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

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

**Courses for Science Majors**

**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 Component Area III (Science Course for Science Majors)	4
ENGL 1301 <sup>1</sup>	3 ENGL 1302 <sup>1</sup>	3
HIST 1301 <sup>2</sup>	3 HIST 1302 <sup>2</sup>	3
MATH 1420 <sup>3</sup>	4 MATH 1430	4
	14	14

**Second Year**

Fall	Hours Spring	Hours
FOLG 1411	4 FOLG 1412	4
MATH 2440	4 MATH 3377	3
MATH 3300	3 Minor Course	3
PHYS 1411 or 1422	4 PHIL 2303 <sup>5</sup>	3
POLS 2305 <sup>4</sup>	3 POLS 2306 <sup>4</sup>	3
	18	16

**Third Year**

Fall	Hours Spring	Hours
ENGL 2332 <sup>6</sup>	3 COSC 1436	4
FOLG 2311 <sup>7</sup>	3 FOLG 2312	3
MATH 4361	3 MATH 4366	3
MATH 4371	3 MATH Advanced Elective	3
Minor Course	3 Minor Course	3
	15	16

**Fourth Year**

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

Minor Course	3	
	15	12

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 Core Curriculum requirement for Component Area VII (Political Science/Government).
- 5 Satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).
- 6 Satisfies Core Curriculum requirement for Component Area IX (Component Area Option).
- 7 Satisfies Core Curriculum requirement for Component Area IV (Language, Philosophy, and Culture).