

# BACHELOR OF SCIENCE, MAJOR IN MATHEMATICS WITH TEACHER CERTIFICATION

## For Students Selecting a Minor as a Second Teaching Field

The requirements include:

Code	Title	Hours
MATH 1420	Calculus I	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3363	Euclidean Geometry	3
MATH 3300	Introduction to Math Thought	3
MATH 3377	Intro to Linear Alg & Matrices	3
MATH 3379	Statistical Mthods in Practice	3
MATH 4377	Algebraic Structures	3
MATH 4384	Survey of Mathematical Ideas	3
MATH 4367	The Evolution of Mathematics	3
MATH 4385	Mathematical Problem Solving	3
Total Hours		36

## For Students Who do not Select a Minor

Code	Title	Hours
MATH 1420	Calculus I	4
MATH 1430	Calculus II	4
MATH 2440	Calculus III	4
MATH 3300	Introduction to Math Thought	3
MATH 3363	Euclidean Geometry	3
MATH 3377	Intro to Linear Alg & Matrices	3
MATH 3379	Statistical Mthods in Practice	3
MATH 4377	Algebraic Structures	3
MATH 4367	The Evolution of Mathematics	3
MATH 4384	Survey of Mathematical Ideas	3
MATH 4385	Mathematical Problem Solving	3
Select one of the following options:		6
OPTION 1: (Analysis Emphasis)		
MATH 4361	Introductory Analysis	
An advanced MATH course		
OPTION 2: (Statistics Emphasis)		
MATH/STAT 4371	Thry & Appl of Prob & Stat I	
An advanced STAT course		
Total Hours		42

Code	Title	Hours
<b>Bachelor of Science, Major in Mathematics with Teacher Certification</b>		
<b>Core Curriculum</b> ( <a href="http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum">catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum</a> )		
Component Area I (Communication)		6
Component Area II (Mathematics)		4
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)		3
<b>Degree Specific Requirements</b>		
Science Courses for Science Majors - Select 8 hours from one of the following disciplines: <sup>1</sup>		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 <sup>2</sup>	3
PHYS 1411 & PHYS 1422 or PHYS 2426	Introduction To Physics I and Introduction To Physics II Heat, Waves & Modern Physics	8
<b>Major Core</b>		
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 3363	Euclidean Geometry	3
MATH 3377	Intro to Linear Alg & Matrics	3
MATH 3379	Statistical Mthods in Practice	3
MATH 4367	The Evolution of Mathematics	3
MATH 4377	Algebraic Structures	3
MATH 4384	Survey of Mathematical Ideas	3
MATH 4385	Mathematical Problem Solving	3
<b>Major</b>		
Select one of the following Options:		6
Option 1:		
MATH 4361	Introductory Analysis	
An Advanced MATH elective		
Option 2:		
STAT 4371	Thry & Appl of Prob & Stat I	
An advanced STAT elective		
<b>Minor</b>		
CISE 3384	The Teaching Profession (Sophomore)	3
CISE 4364	Mth Tch Secondary Schools (Senior)	3
CISE 4378	Content Literacy	3
CISE 4379	Differentiated Pedagogy	3
CISE 4380	Respon Of Pro Educator	3
CISE 4394	Creatng Env For Lrng-Secondary (Senior)	3
CISE 4396	Std Tch Secondary Classroom (Senior)	3
CISE 4397	Std Tch Secondary Classroom (Senior)	3
MATH Elective		6
Elective		1
Total Hours		123

<sup>1</sup> Satisfies Core Curriculum requirement for Component Area III (Life and Physical Science). Two courses from the same discipline should be selected.

<sup>2</sup> ENGL 2332 satisfies both the Core Curriculum requirement for Component Area IX.(Component Area Option) and the major.

<sup>3</sup> Satisfies Core Curriculum requirement for Component Area II (Mathematics).

**First Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area III <sup>1</sup>	4 Component Area III <sup>1</sup>	4
Component Area IV (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3 Component Area V (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
COSC 1436	4 ENGL 1302 <sup>2</sup>	3
ENGL 1301 <sup>2</sup>	3 MATH 1430	4
MATH 1420 <sup>3</sup>	4 MATH 3379	3
	18	17

**Second Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
HIST 1301 <sup>4</sup>	3 HIST 1302 <sup>4</sup>	3
MATH 2440	4 MATH 3363	3
MATH 3300	3 MATH 3377	3
PHYS 1411	4 PHYS 1422 or 2426	4
POLS 2305 <sup>5</sup>	3 POLS 2306 <sup>5</sup>	3
	17	16

**Third Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area VIII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3 CISE 4378	3
CISE 3384	3 CISE 4380	3
MATH 4367	3 Elective	1
MATH 4377	3 MATH 4384	3
MATH 4385	3 MATH elective	3
Option 1 or 2 <sup>6</sup>	3 Option 1 or 2 (3 additional hours from same option) <sup>6</sup>	3
	18	16

**Fourth Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
CISE 4364	3 CISE 4394	3
CISE 4379	3 CISE 4396	3
ENGL 2332 <sup>7</sup>	3 CISE 4397	3
MATH elective	3	
	12	9

Total Hours: 123

- <sup>2</sup> Satisfies Core Curriculum requirement for Component Area I (Communications).
- <sup>3</sup> Satisfies Core Curriculum requirement for Component Area II (Mathematics).
- <sup>4</sup> Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
- <sup>5</sup> Satisfies Core Curriculum requirement for Component Area VII (Political Science).
- <sup>6</sup> Option 1: MATH 4361 and an Advanced MATH elective OR  
Option 2: STAT 4371 and an Advanced STAT elective
- <sup>7</sup> Satisfies Core Curriculum requirement for Component Area IX (Component Area Option).