

# BACHELOR OF SCIENCE, MAJOR IN COMPUTING SCIENCE (COMPUTER SCIENCE, CS)

## Bachelor of Science, Major in Computing Science (Computer Science, CS)

Core Curriculum ( <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 (Communications)			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 Specifics Requirements			
Electives (Advanced)			12
MATH 1420	Calculus I		4
MATH 1430	Calculus II		4
MATH 2395	Discrete Mathematics		3
Math (Advanced)			3
STAT 3379	Statistical Methods In Practice		3
Science (In addition to Component Area III)			8
Total Hours			79

The Computing Science major requires a total of 44 hours of Computer Science coursework, which includes 26 hours of CS required courses and 18 hours of coursework within one of three concentrations. General degree requirements must also be met. The 44 hours of coursework for the Computer Science major should be distributed as follows (Note: CSTE courses may not be used to meet this requirement):

Code	Title	Hours	
<b>Required Courses</b>			
COSC 1436	Programming Fundamentals I	4	
COSC 1437	Programming Fundamentals II	4	
COSC 2329	Comp Organiz & Machine Lang	3	
COSC 3318	Data Base Management Systems	3	
COSC 3319	Data Structures and Algorithms	3	
COSC 4318	Advanced Language Concepts	3	
COSC 4319	Software Engineering	3	
COSC 4349	Professionalism and Ethics	3	
Total Hours			26

### Computer Science Concentration (18 hours)

COSC 2347	Special Topics/Programming	3	
COSC 3327	Computer Architecture	3	
COSC 4316	Compiler Design & Construction	3	
COSC 4327	Computer Operating Systems	3	
Advanced COSC			6
Total Hours			18

<sup>1</sup> MATH 1420 satisfies the Core Curriculum requirement for Component Area II (Mathematics), one semester credit hour of the Core Curriculum requirement for Component Area IX (Component Area Option), and the Degree Specific requirement.

<sup>2</sup> Eight semester credit hours of science courses satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science) and the Degree Specific requirement.

**Note**

The minimum number of credit hours required for a baccalaureate degree is 120. The minimum number of advanced credit hours for a baccalaureate degree is 42. Students may take free elective courses beyond the hours identified in the recommended 4-year plan to meet the overall credit hour and advanced credit hour requirements.

**First Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4 Component Area III (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
COSC 1436	4 COSC 1437	4
ENGL 1301 <sup>1</sup>	3 ENGL 1302 <sup>1</sup>	3
MATH 1420 <sup>2</sup>	4 MATH 1430	4
	15	15

**Second Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area IV (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiiv)	3 Component Area V (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
Component Area VIII (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3 COSC 3318	3
COSC 2329	3 COSC 2347	3
HIST 1301 <sup>3</sup>	3 HIST 1302 <sup>3</sup>	3
POLS 2305 <sup>4</sup>	3 POLS 2306 <sup>4</sup>	3
	15	15

**Third Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
COSC 3319	3 Component Area IX (catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
Degree Specific Requirement: Science <sup>5</sup>	4 COSC 3327	3
MATH 2395	3 COSC 4327	3
General Electives	6 Degree Specific Requirement: Science <sup>5</sup>	4
	STAT 3379	3
	16	16

**Fourth Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
COSC 4318	3 COSC 4319	3
COSC 4316	3 COSC 4349	3
COSC/DFSC Advanced Elective	3 COSC/DFSC Advanced Elective	3
MATH (Advanced)	3 General Advanced Elective	3
General Advanced Elective	3 General Elective	1
	15	13

Total Hours: 120

- <sup>1</sup> Satisfies Core Curriculum requirement for Component Area I (Communications).
- <sup>2</sup> Satisfies 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).
- <sup>3</sup> Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
- <sup>4</sup> Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).