BACHELOR OF SCIENCE, MAJOR IN COMPUTING SCIENCE (INFORMATION ASSURANCE, IA)

Code	Title	Hours
Bachelor of Science, Major in Computing Science (Information Assurance, IA)		
Core Curriculum (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communications)		6
Component Area II (Mathematics) [1]		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) [1]		3
Degree Specific Requirement		
MATH 1420	Calculus I [1, 2]	4
MATH 1430	Calculus II	4
MATH 2395	Discrete Mathematics	3
MATH (Advanced)		3
STAT 3379	Statistical Methds in Practice	3
Science (In addition to Component Area III)		8
Advanced general electives		9
Total Hours		**72**

The Computing Science major requires a total of 44 to 48 hours of Computer Science coursework, depending on concentration, which includes 26 hours of CS required courses and 19 to 22 hours of coursework, depending on concentration. General degree requirements must also be met. The 44 to 48 hours of coursework for the Computing Science major should be distributed as follows (Note: CSTE courses may not be used to meet this requirement):

Code	Title	Hours
Required Courses		
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**

Code	Title	Hours
Information Assurance Concentration (22 hours)		
DFSC 1316	DF and IA Fundamentals I	3
DFSC 2316	DF and IA Fundamentals II	3
COSC 2347	Special Topics/Programming	3
DFSC 3316	Cryptography and Network Scrty	3
DFSC 4317	Information Security	3
COSC 4149	Seminar in Computer Science	1
Advanced DFSC Electives		3

COSC 3327	Computer Architecture	3
Total Hours		**22**

1 MATH 1420 satisfies the Core Currciulum requirement for Component Area II (Mathematics), one semester credit hour of Component Area IX (Component Area Option), and the Degree Specific requirements.

2 Students who are not eligible for enrollment in MATH 1420 will have additional mathematics requirements.

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

Fall	Hours	Spring	Hours
Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4	Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4
COSC 1436	4	COSC 1437	4
ENGL 1301[1]	3	ENGL 1302[1]	3
MATH 1420[2, 3]	4	MATH 1430	4
	15		**15**

Second Year

Fall	Hours	Spring	Hours
Component Area IV (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	Component Area V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3	COSC 2347	3
COSC 2329	3	COSC 3318	3
HIST 1301[4]	3	HIST 1302[4]	3
POLS 2305[5]	3	POLS 2306[5]	3
	15		**15**

Third Year

Fall	Hours	Spring	Hours
COSC 3319	3	Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
DFSC 1316	3	COSC 3327	3
Degree Specific Requirement: Science[6]	4	DFSC 2316	3
Elective (Advanced)	3	Degree Specific Requirement Science[6]	4
MATH 2395	3	STAT 3379	3
	16		**16**

Fourth Year

Fall	Hours	Spring	Hours
COSC 4318	3	COSC 4149	1
DFSC 3316	3	COSC 4319	3
DFSC Advanced Elective	3	COSC 4349	3
Elective (Advanced)	3	DFSC 4317	3
MATH (Advanced)	3	Elective (Advanced)	3
	15		**13**

Total Hours: 120

1 Satisfies Core Curriculum requirement for Component Area I (Communications).

2 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).

3 Students who are not eligible for enrollment in MATH 1420 will have additional mathematics requirements.

4 Satisfies Core Curriculum requirement for Component Area VI (U.S. History).

5 Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).

6 8 hours of science satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science). An additional 8 hours of science satisfies the science component of the Degree Specific requirements.

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.

AppThe 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 Computing Science (Information Assurance, IA) is designed to provide graduates with the following marketable skills:

- Solving complex technology-related problems.
- Applying theoretical principles to the software engineering process.
- Technical communication.
- System and network defense.