BACHELOR OF SCIENCE, MAJOR IN CYBERSECURITY

Code	Title	Hours
Bachelor of Science, Major in Cybersecurity		
Core Curriculum		
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 Specific Requirements:		
MATH 1420	Calculus I [1, 2]	4
MATH 1430	Calculus II	4
MATH 2395	Discrete Mathematics	3
MATH 3379	Statistical Mthods in Practice	3
Required Major Courses:		
COSC 1436	Programming Fundamentals I	4
COSC 1437	Programming Fundamentals II	4
COSC 2327	Intro to Computer Networks	3
COSC 2329	Comp Organiz & Machine Lang	3
COSC 3312	Numerical Methods	3
COSC 3318	Data Base Management Systems	3
COSC 3319	Data Structures and Algorithms	3
COSC 3321	Digital System Design	3
COSC 4314	Data Mining	3
COSC 4319	Software Engineering	3
COSC 4349	Professionalism and Ethics	3
DFSC 1316	DF and IA Fundamentals I	3
DFSC 2316	DF and IA Fundamentals II	3
DFSC 2320	Hardware Forensics	3
DFSC 3316	Cryptography and Network Scrty	3
DFSC 4317	Information Security	3
DFSC 4318	Malware	3
DFSC 4338	Cyber Warfare	3
Prescribed Electives Choose 2 of the following:		**6**
COSC 3327	Computer Architecture	
COSC 3331	Human-Computer Interaction	
COSC 4318	Advanced Language Concepts	
COSC 4326	Network Theory	
COSC 4327	Computer Operating Systems	
COSC 4332	Computer Graphics	
COSC 4337	Digital Signal Processing	
COSC 4340	Spc Tpcs in Computer Sci	
DFSC 4319	Principles of Data Quality	
Electives		**6**
Total Hours		120

1 MATH 1420 satisfies the requirement for Component Area II (Mathematics) and 1 semester credit hour for Component Area IX (Component Area Option) as well as the major.

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

First Year

Fall	Hours	Spring	Hours
Component Area I (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3	Component Area I (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareai)	3
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
Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3	Component Area VI (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavi)	3
MATH 1420[1,2]	4	MATH 1430	4
	14		14

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 VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	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
Component Area VII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareavii)	3	Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
COSC 1436	4	COSC 1437	4
MATH 2395	3	MATH 3379	3
	16		16

Third Year

Fall	Hours	Spring	Hours
COSC 2327	3	COSC 3318	3
COSC 2329	3	DFSC 2316	3
COSC 3312	3	DFSC 2320	3
DFSC 1316	3	DFSC 3316	3
Elective	3	Elective	3
	15		15

Fourth Year

Fall	Hours	Spring	Hours
Prescribed Elective[3]	3	Prescribed Elective[3]	3
DFSC 4317	3	COSC 4319	3
COSC 4314	3	COSC 4349	3
COSC 3321	3	DFSC 4318	3
COSC 3319	3	DFSC 4338	3
	15		15

Total Hours: 120

1 MATH 1420 satisfies the requirement for Component Area II (Mathematics) and 1 semester credit hour for Component Area IX (Component Area Option) as well as the major.

[2] Students who are not eligible for enrollment in MATH 1420 (http://catalog.shsu.edu/archives/2020-2021/search/?P=MATH%201420) will have additional mathematics requirements.

[3] Select one of the Prescribed Electives from the below course listing.

Code	Title	Hours
Proscribed Elective Courses		
COSC 3327	Computer Architecture	3
COSC 3331	Human-Computer Interaction	3
COSC 4318	Advanced Language Concepts	3
COSC 4326	Network Theory	3
COSC 4327	Computer Operating Systems	3
COSC 4332	Computer Graphics	3
COSC 4337	Digital Signal Processing	3
COSC 4340	Spc Tpcs in Computer Sci	3
DFSC 4319	Principles of Data Quality	3

The 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 Cybesecurity 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.