CYBERSECURITY (B.S.)

Degree: Bachelor of Science

Major: Cybersecurity

Concentration: None

Total Hours: 120

Code	Title	Hours
General Education Core Curriculum		
Communication		
ENGL 1301	Composition I	3
Select one of the following:		3
COMM 1315	Public Speaking I	
COMM 1321	Business and Prof Speech	
ENGL 1302	Composition II	
FREN 1311	Beginning French I	
SPAN 1311	Beginning Spanish I	
Mathematics		
MATH 1314	College Algebra	3
Life and Physical Sciences		
Select two from the following:		8
BIOL 1406	General Biology I (Majors)	
BIOL 1407	General Biology II (Majors)	
CHEM 1311 & CHEM 1111	General Chemistry I and General Chemistry I Laboratory	
CHEM 1312 & CHEM 1112	General Chemistry II and General Chemistry II Laboratory	
PHYS 2425	University Physics I	
PHYS 2426	University Physics II	
Language, Philosophy and Culture		
PHIL 2306	Ethics	3
Creative Arts		
Select three hours from the following:		3
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
COMM 1375	Film Appreciation	
COSC 1324	The Art of Computer Game Development	
DANC 2303	Dance Appreciation	
MUSI 1306	Music Appreciation	
MUSI 1309	Jazz History and Appreciation	
MUSI 1310	History of Rock and Roll	
PHIL 1330	Arts and Ideas	
THEA 1310	Theatre Appreciation	
American History		
Select six hours from the following:		6
HIST 1301	U S History I 1763-1877	
HIST 1302	U S History II Since 1877	
HIST 2301	Texas History	
Government/Political Science		
POLS 2301	Intro to American Government I	3
POLS 2302	Intro/American Government II	3
Social and Behavioral Sciences		
Select three hours from the following:		3
ANTH 2346	Introduction to Anthropology	
ANTH 2351	Cultural Anthropology	
BULW 1370	Business Environment and Public Policy	
CRIJ 1301	Intro to Criminal Justice	
ECON 1301	Principles and Policies	
ECON 2301	Principles of Economics I Macro	
ECON 2302	Principles of Economics II Micro	
FINC 2310	Intro to Consumer Finance	
INEN 2373	Engineering Economics	
PSYC 2301	General Psychology	
PSYC 2315	Lifespan Development	
POLS 1301	Intro to Political Science	
SOCI 1301	Introduction to Sociology	
SOWK 2361	Intro Social Work	
Component Area Option		
Additional Courses from any Core Curriculum Area above		6
Preferred Choices:		
INEN 2301	Applications of Quantitative Methods	
LIBR 1301	Fundamentals of Information	
PSYC 2317	Introduction to Statistical Methods	
Required Major Courses		
Major Courses		
COSC 1172	Thinking, Speaking, and Writing	1
COSC 1173	Programming Lab	1
COSC 1174	Fundamentals of Computing II Lab	1
COSC 1336	Programming Fundamentals I	3
COSC 1337	Programming Fundamentals II	3
COSC 2325	Computer Organization	3
COSC 2336	Programming Fundamentals III	3
COSC 2375	Discrete Structures	3
COSC 3304	Algorithms Design and Analysis	3
COSC 3325	Computer Law and Ethics	3
COSC 4272	Senior Assessment	2
COSC 4302	Operating Systems	3
COSC 4345	Cybersecurity Networks	3
CPSC 4315	Network System Administration	3
CPSC 4326	Android Programming	3
CPSC 4360	Software Engineering	3
CPSC 4361	Secure Software Engineering	3
CPSC 4363	Cybersecurity: Systems	3
ECEN 1100	Introduction to ECE	1
MATH 2413	Calculus I	4
Electives		
Applications Electives - one from:		3
CPSC 4327	Advanced Android Programming	
CPSC 4330	Multimedia Processing	
COSC 4301	Special Topics	
Cyberscience Fundamentals - one from:		3
CPSC 2350	Cyber Science Fundamentals	
COSC 3302	Intro to Computer Theory	

COSC 3306	UNIX/C++	
MISY 3380	Database Programming	
MISY 3390	Data Mining & Machine Lrng	
Cybercrime Electives - one from:		3
COSC 4365	Computer Crime Analysis	
CRIJ 4333	Cybercrime	
CRIJ 4313	Contemporary Issues in Criminal Justice	
Data Electives - one from:		3
CPSC 4340	Database Design	
CPSC 4370	Artificial Intelligence	
CPSC 4375	Machine Learning	
COSC 4301	Special Topics	
Nteworks Electives - one from:		3
CPSC 4317	Computer Networks	
CPSC 4364	Internet of Things	
Systems Electives - one from:		3
COSC 4333	Distributed Systems	
COSC 4301	Special Topics	
Cyberscience Electives		6
Any unused courses from electives listed above		
Total Hours		**120**

[1] If these science courses are selected, they must be accompanied by the corresponding 1-hour laboratory course (CHEM 1111 General Chemistry I Laboratory and CHEM 1112 General Chemistry II Laboratory). These additional hours will be applied to the 120-hour requirement for the major.

First Year		
Fall		**Hours**
COSC 1336	Programming Fundamentals I	3
COSC 1173	Programming Lab	1
COSC 1172	Thinking, Speaking, and Writing	1
HIST 1301	U S History I 1763-1877	3
MATH 1314	College Algebra	3
Creative Arts		3
	Hours	**14**
Spring		
COSC 1337	Programming Fundamentals II	3
COSC 1174	Fundamentals of Computing II Lab	1
ENGL 1301	Composition I	3
MATH 2413	Calculus I	4
HIST 1302	U S History II Since 1877	3
Communication		3
	Hours	**17**
Second Year		
Fall		
COSC 2336	Programming Fundamentals III	3
COSC 2325	Computer Organization	3
PHIL 2306	Ethics	3
POLS 2301	Intro to American Government I	3
Life and Physical Sciences		4
	Hours	**16**
Spring		
Social and Behavioral Sciences		3
Cyberscience Fundamentals		3
COSC 2375	Discrete Structures	3
Component Area Option		3
Life and Physical Sciences		4
	Hours	**16**
Third Year		
Fall		
Component Area Option		3
COSC 4302	Operating Systems	3
CPSC 4326	Android Programming	3
POLS 2302	Intro/American Government II	3
ECEN 1100	Introduction to ECE	1
	Hours	**13**
Spring		
COSC 3325	Computer Law and Ethics	3
COSC 3304	Algorithms Design and Analysis	3
CPSC 4315	Network System Administration	3
CPSC 4360	Software Engineering	3
Data Elective		3
	Hours	**15**
Fourth Year		
Fall		
Networks Elective		3
Systems Elective		3
CPSC 4363	Cybersecurity: Systems	3
Applications Elective		3
CPSC 4361	Secure Software Engineering	3
	Hours	**15**
Spring		
COSC 4272	Senior Assessment	2
COSC 4345	Cybersecurity Networks	3
Cybercrime Elective		3
Cyberscience Electives		6
	Hours	**14**
	Total Hours	**120**