

# CYBERSECURITY (BSI)

## B.S.I. Degree Requirements (Cybersecurity Major)

Code	Title	Hours
<b>General Education Requirements</b>		
<i>Distribution Lists</i>		
Select 3 hours from each of the corresponding College of Arts & Sciences Distribution lists		
	Research Writing (One Course) ( <a href="https://catalog.baylor.edu/undergraduate/college-arts-sciences/#rw">https://catalog.baylor.edu/undergraduate/college-arts-sciences/#rw</a> )	3
	Literature in Context (One Course) ( <a href="https://catalog.baylor.edu/undergraduate/college-arts-sciences/#lic">https://catalog.baylor.edu/undergraduate/college-arts-sciences/#lic</a> )	3
	Communication and Media Literacy (One Course) ( <a href="https://catalog.baylor.edu/undergraduate/college-arts-sciences/#cml">https://catalog.baylor.edu/undergraduate/college-arts-sciences/#cml</a> )	3
	Contemporary Social Issues (One Course) ( <a href="https://catalog.baylor.edu/undergraduate/college-arts-sciences/#csi">https://catalog.baylor.edu/undergraduate/college-arts-sciences/#csi</a> )	3
<i>Religion</i>		
REL 1310	The Christian Scriptures	3
REL 1350	The Christian Heritage	3
<i>Other Requirements</i>		
PSC 1387	The U.S. Constitution, Its Interpretation, and the American Political Experience	3
PHI 1310	Computer Ethics	3
	Chapel: Two Semesters	0
	Foreign Language and Culture: Select 3 hours from the Foreign Language and Culture Distribution List for ECS Majors. Second-level proficiency must be reached if a foreign language is chosen.	3
	Lifetime Fitness: Any LF 11XX course	1
<i>Mathematics and Statistics</i>		
MTH 1321	Calculus I	3
MTH 1322	Calculus II	3
MTH 2311	Linear Algebra	3
MTH 4312	Cryptology	3
STA 3381	Probability and Statistics	3
STA 4373	Computational Methods in Statistics	3
<i>Lab Sciences</i>		
	Select eight hours of corresponding lecture/labs from the following:	8
BIO 1305 & BIO 1105	Modern Concepts of Bioscience and Modern Concepts of Bioscience Laboratory	
BIO 1306 & BIO 1106	Modern Concepts of Bioscience, continued and Modern Concepts of Bioscience Laboratory	
CHE 1301 & CHE 1101	Basic Principles of Modern Chemistry I and General Chemistry Laboratory I	
CHE 1302 & CHE 1102	Basic Principles of Modern Chemistry II and General Chemistry Laboratory II	
GEO 1405	The Dynamic Earth	
GEO 1306 & GEO 1106	The Earth Through Time and The Earth Through Time, Laboratory	
PHY 1408 or PHY 1420	General Physics for Natural and Behavioral Sciences I General Physics I	

PHY 1409 or PHY 1430	General Physics for Natural and Behavioral Sciences II General Physics II	
<b>Total General Education Hours</b>		<b>54</b>
<b>Major Requirements</b>		
<i>Computer Science</i>		
CSI 1401	Introduction to Programming I	4
CSI 1402	Introduction to Programming II	4
CSI 2300	Introduction to Data Science	3
A grade of "C" or better is required in all computer science hours counted toward major.		
<i>Data Science</i>		
DSC 2350	Discrete Structures for Data Science	3
DSC 3310	Cloud Computing	3
DSC 3334	Algorithms and Data Structures	3
DSC 3335	Database Design and Applications for Data Science	3
DSC 3344	Analytics for Machine Learning	3
DSC 4354	Cybersecurity for Data Science	3
A grade of "C" or better is required in all Data Science hours counted toward major.		
<i>Cybersecurity</i>		
CYB 2334	Computer Systems for Cybersecurity (new course)	3
CYB 4111	(take 3 times, renumbered from CS 4111)	3
CYB 4357	– Systems Security (new course)	3
CYB 4367	– Incident Response and Analytics (new course)	3
CYB 43C9	– Cybersecurity Capstone (initially co-located with CSI and DSC capstone courses)	3
Cybersecurity Electives (Choose two from the four below)		6
CYB 4377	– Introduction to Malware Analysis and Computer Forensics (new course)	
CYB 4387	– Security Auditing and Penetration Testing (new course)	
DSC 4310	Machine Learning	
CSI 3374	Software Project Management	
<b>Total Hours</b>		<b>50</b>
<b>Code</b> <b>Title</b> <b>Hours</b>		
<b>Concentration Requirements</b>		
Students will choose one of five concentrations (six courses per concentration)		18
1. Business/Entrepreneurship Concentration		
2. Geopolitical Issues Concentration		
3. Policy, Law, and Criminal Justice Concentration		
4. Analytics Concentration		
5. Interdisciplinary Concentration - Choose six courses from the four concentrations above - at least one course from each concentration		

NOTE: Add additional elective hours as needed to reach 124 for degree.