

CYBERSECURITY (BSI)

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

Code	Title	Hours
General Education Requirements		
<i>Distribution Lists</i>		
Select 3 hours from each of the corresponding College of Arts & Sciences Distribution lists		
	Research Writing (One Course) (https://catalog.baylor.edu/undergraduate/college-arts-sciences/#rw)	3
	Literature in Context (One Course) (https://catalog.baylor.edu/undergraduate/college-arts-sciences/#lic)	3
	Communication and Media Literacy (One Course) (https://catalog.baylor.edu/undergraduate/college-arts-sciences/#cml)	3
	Contemporary Social Issues (One Course) (https://catalog.baylor.edu/undergraduate/college-arts-sciences/#csi)	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	
Total General Education Hours		54
Major Requirements		
<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	
Total Hours		50
Concentration Requirements		
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.