

B.S. Cybersecurity Degree – Software Security Concentration

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

First Year

Fall

Course	Prerequisite	Credit
SAT 1000 Intro to Applied Computing* or CS 1000 Explorations in Computing*	—	1
SAT 1700 Cyber Ethics*	—	3
MA 1160 or MA 1161 Calculus I*	placement	4 or 5
CS 1121 Introduction to Programming I* or CS 1131 Accelerated Introduction to Programming* (both Java)	placement	3 5
UN 1015 Composition	—	3
Total		14-17

Spring

Course	Prerequisite	Credit
CS 1122 Intro to Programming II	CS 1121	3
CS 2311 Discrete Structures	CS 1121 and MA 1160 or 1161	3
MA 2320 Elementary Linear Algebra	MA 1160 or 1161	2
Essential Education: Arts & Culture	varies	3
Essential Education: Natural and Physical Science	varies	3 or 4
Total		14-15

Second Year

Fall

Course	Prerequisite	Credit
SAT 2711 Linux Fundamentals	CS 1121	3
CS 2321 Data Structures	CS 1121	3
CS 1142 Programming at the HW/SW Interface	CS 1122	3
MA 2720 Statistical Methods	MA 1160 or 1161	4
Essential Education: Intercultural Competency	varies	3
Total		16

Spring

Course	Prerequisite	Credit
CS 3141 Team Software Project	CS 2311 and 2321	3
CS 3331 Concurrent Computing	CS 2311 and 2321	3
CS 3421 Computer Organization	CS 1142	3
Free elective	varies	3
Essential Education: SHAPE	varies	3
Essential Education: Activities for Well- being and Success	—	1
Total		16

Third Year

Fall

Course	Prerequisite	Credit
SAT 3812 Cybersecurity I	SAT 2711	3
CS 3425 Intro to Database Systems	CS 2311 and 2321	3
CS 3411 System Programming	CS 3421	3
ENT 3950 Enterprise work**	—	1
Essential Education: Experience	varies	3
Essential Education: Activities for Well- being and Success	—	1
Total		13-14

Spring

Course	Prerequisite	Credit
CS 3712 Software Quality Assurance	CS 3141	3
CS 4321 Introduction to Algorithms	CS 2311 and 2321	3
CS 4461 Computer Networks	CS 3411	3
ENT 3960 Enterprise work**	—	1
Free elective	varies	3
Essential Education: Communication Intensive	varies	3
Total		15-16

Fourth Year

Fall

Course	Prerequisite	Credit
CS 4471 Computer Security	CS 3411	3
CS 4001 Cybersecurity Policy and Law	—	3
SAT 4816 Digital Forensics	SAT 3812	3
SAT 4283 Information Governance and Risk Management	—	3
ENT 4950 Enterprise Capstone or CS 4741 Senior Design**	permission	2
Essential Education: Activities for Well-being and Success	—	1
Total		15

Spring

Course	Prerequisite	Credit
CS 4740 Development of Trusted Software	CS 4471	3
CS/EE 4723 Network Security		3
CS 4741 Senior Design**	—	2
Technical elective	varies	3
Free elective	varies	3
Free elective	varies	3
Total		15-17

Grand Total = 120 Credits

* Satisfies a major requirement and an Essential Education requirement.

** Culminating experience consists of 4 credits of: {ENT 3950 (1), 3960 (1), 4950 (2)} or {CS 4741 (2), twice} or {UN 3002 (2), 3003 (2)}