

Bachelor of Science - Cybersecurity - Students Entering Fall 2026

Name : _____ CWID: _____ Minor Field(s), if any: _____ Co-op (Y/N)? ☐

Interested in Pursuing Accelerated Masters Program (Y/N)? ☐ Reduced Course Program (Y/N) ☐ Interested in Study Abroad(Y/N) ☐

The primary purpose of this form is to lay out the courses required to complete your degree program and when you expect to take each of them. You may then use it to track your own progress to the degree. You should revise it as needed. Please indicate the term when you expect to take each course (e.g., 20F, 21S, etc.). Roman numerals indicate the standard curriculum time schedule. For electives, fill in the course number. Any courses taken elsewhere for Transfer Credit should be marked as TR. Advanced Placement credit should be marked as AP.

Term	Course	Credits	Grade	Term	Course	Credits	Grade
<u>REQUIRED COURSES</u>				<u>SUCCESS CORE CURRICULUM</u>			
I	Science I	3.0		I	PRV 101 – First Year Experience	1.0	
IV	Science II	3.0		III	MGT 103–Intro to Entrepreneurial Thinking	2.0	
IV	Science Lab	1.0		II	PRV	1.0	
I	MA121 – Differential Calculus	2.0		VII	PRV	1.0	
I	MA122 – Integral Calculus	2.0		VIII	PRV	1.0	
II	MA125 – Vectors and Matrices	2.0		<u>HUMANITIES</u>			
II	MA126– Multivariable Calculus I	2.0		I	HASS 103	3.0	
III	MA223 – Introduction to Probability	3.0		II	HASS 105	3.0	
IV	☐ MA232- Lin. Alg. or ☐ MA331- Intermediate Stats	3.0		V	HSSC 371 or HPL 455	3.0	
I	CS115 – Introduction to Computer Science	4.0		VII	Humanities	3.0	
I	CS146 – Introduction to Web Prog. & Project Dev.	3.0		VIII	Humanities	3.0	
II	CS135 – Discrete Structures	4.0		<u>COMPUTER SCIENCE ELECTIVE</u>			
II	CS284 – Data Structures	4.0		VII		3.0	
III	CS306- Introduction to IT Security	4.0		<u>CYBERSECURITY ELECTIVES</u>			
III	CS382 – Computer Architecture and Organization	4.0		VII		3.0	
III	CS385 – Algorithms	4.0		VIII		3.0	
IV	CS334 –Theory of Computation	3.0		VIII		3.0	
IV	CS392 – Systems Programming	3.0		<u>GENERAL ELECTIVE</u>			
IV	CS496 – Principles of Programming Languages	3.0		VII		3.0	
V	CS442 – Database Management Systems I	3.0		<u>ADDITIONAL COURSES</u>			
V	CS485 – Societal Impact of Information Technologies	1.0					
V	CS492 – Operating Systems	3.0					
V	CS503 – Discrete Mathematics for Cryptography	3.0					
V	CS578 – Privacy in a Networked World	3.0					
VI	CS346 – Web Programming	3.0					
VI	CS511 – Concurrent Programming	3.0					
VI	CS521 – TCP/IP Networking	3.0					
VI	CS576 – Systems Security	4.0					
VI	CS579 – Foundations of Cryptography	3.0					
VII	CS425 – Cybersecurity Capstone I	3.0					
VIII	CS426 – Cybersecurity Capstone II	3.0					

Standard CyS Semester Outline

TERM I- 18 credits

CS 115- Introduction to Computer Science
 CS 146- Introduction to Web Prog. & Project Dev.
 HASS 103- Writing and Communications Colloquium
 MA 121- Differential Calculus
 MA 122- Integral Calculus
 Science I
 PRV 101- First Year Experience

TERM III- 17 credits

CS 306 Introduction to IT Security
 CS 382- Computer Architecture & Organization
 CS 385- Algorithms
 MA 223- Introduction to Probability
 MGT 103- Introduction to Entrepreneurial Thinking

TERM V- 16 credits

CS 442- Database Management Systems I
 CS 485- Societal Impact of Information Technologies
 CS 492- Operating Systems
 CS 503- Discrete Mathematics for Cryptography
 CS 578- Privacy in a Networked World
 HSSC 371 or HPL 455

TERM VII- 16 credits

CS 425- Cybersecurity Capstone I
 Computer Science Elective
 Cybersecurity Elective
 Humanities
 General Elective
 PRV 20X- Frontiers of Technology

TERM II- 16 credits

CS 135- Discrete Structures
 CS 284- Data Structures
 HASS 105- Knowledge, Nature, Culture
 MA 125- Vectors and Matrices
 MA 126- Multivariable Calculus I
 PRV 20X- Frontiers of Technology

TERM IV- 16 credits

CS 334- Theory of Computation
 CS 392- Systems Programming
 CS 496- Principles of Programming Languages
 MA 232 Linear Algebra *or* MA 331 Intermediate Statistics
 Science II
 Science Lab

TERM VI- 16 credits

CS 346- Web Programming
 CS 511- Concurrent Programming
 CS 521- TCP/IP Networking
 CS 576- Systems Security
 CS 579- Foundations of Cryptography

TERM VIII- 13 credits

CS 426- Cybersecurity Capstone II
 Humanities
 Cybersecurity Elective
 Cybersecurity Elective
 PRV 20X- Frontiers of Technology

Additional Resources

Students must seek prior approval from their academic advisor before enrolling in elective courses

Required Science Track:

	Science I	Science II	Science Lab
Physics	PEP 111 Mechanics	PEP 112 Electricity and Magnetism	PEP 221
Physics & Biology	PEP 111 Mechanics	BIO 181 Biology & Biotechnology	BIO 182
Physics & Chemistry	PEP 111 Mechanics	CH 115 General Chemistry I	CH 117
Chemistry	CH 115 General Chemistry I	CH 116 General Chemistry II	CH 117
Chemistry & Biology	CH 115 General Chemistry I	BIO 181 Biology & Biotechnology	CH 117 OR BIO 182
Chemistry & Physics	CH 115 General Chemistry I	PEP 111 Mechanics	CH 117

Cybersecurity Electives:

The following courses are approved as CyS electives:

- CS 572- Automated Techniques for Security, Privacy and Reliability
- CS 577- Reverse Engineering
- CS 594- Enterprise Security and Information Assurance
- CS 595- Information Security & the Law
- CS 643 Formal Verification of Software
- CS 665- Forensic Analysis
- CS 676- Advanced Topics in Systems Security
- CS 693- Cryptographic Protocols
- CS 696- Database Security
- CPE 592- Multimedia Network Security
- EE 584- Wireless Network Security
- FIN 545- Risk Management for Financial Cybersecurity
- MA 564- Mathematics of Post-Quantum Cryptography
- MA 565- Quantum Algorithms

CS Elective:

- Any 3+ credit CS course may count as CS elective except for:
- Any course that is a required course in the degree program
 - Any course that is equivalent to another course counted towards the degree.
 - The following courses cannot be counted as CS elective: CS 396, CS 501, CS 510, CS 515, CS 520, CS 525, CS 546, CS 550, CS 556, CS561, CS 570, CS 573, or CS 590.
 - Also, students may not count toward the major both courses in each of the following pairs: CS 488 and CS 514.

Humanities

Humanities Disciplines:

- HHS – History
- HLI - Literature
- HPL – Philosophy
- HSSC – Social Science
- HQSS – Quantitative Social Science
- HST – Science and Technology Studies

Only certain HMU-Music and HAR- Visual Arts courses offer humanities credit.