

2022-2023 Degree Map-Bachelor of Science in Cybersecurity

This map is a term-by-term sample course schedule. The milestones listed to the right of each term are designed to keep you on course to graduate in four years. The Sample Schedule serves as a general guideline to help you build a full schedule each term. See course descriptions and prerequisites at <http://www.atu.edu/catalog/>

Possible careers include: Security Analyst, Security Engineer, Security Administrator, Security Software Developer, Cryptographer, Cryptanalyst, Chief Information Security Officer, Security Specialist, Vulnerability Assessor, Security Manager, Security Auditor, Security Director, Forensic Expert, Penetration Tester, Source Code Auditor

#Prerequisite Courses: ENGL 0303 _____ MATH 0803 _____ MATH 1003 _____ MATH 0903 _____ MATH 1113 _____ MATH 1110 _____

Sample Schedule	Milestones/Notes		
Semester 1	Hrs.	Grade	Semester 1
ENGL 1013-Comp I (ACTS=ENGL 1013)	3	#	
Fine Arts & Humanities	3		
MATH 2243- Calculus for Business and Economics	3	#	Prereq: 22 or higher on math ACT or # in MATH 1113 or higher
TECH 1001- Orientation to the University	1		
CSEC 1113- Introduction to Networking	3		Milestone
Total hours	13	GPA	

Sample Schedule	Milestones/Notes		
Semester 5	Hrs.	Grade	Semester 5
Science with Lab	4		
COMS 3703- Advanced Operating Systems	3		Fall Only Prereq: COMS 2213 & COMS 2223
STAT 2163- Intro to Statistical Methods	3		Prereq: MATH 1003 or higher
CSEC 4133- Large Scale Distributed Systems	3		Prereq: CSEC 2223 and junior standing in CSEC
CSEC 3123- Cyber Defense I	3		Prereq: CSEC 2213 & CSEC 2223
Total hours	16	GPA	

Semester 2	Hrs.	Grade	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
U.S. History/Government	3		
COMS 1013- Programming I	3	#	Prereq: MATH 1113 or higher
COMS 1011- Programming I Lab	1	#	PASS/FAIL - Coreq: COMS 1013
CSEC 1213- Wireless and Cellular Security	3		Prereq: CSEC 1113
CSEC 2113- Introduction to Information Systems	3		Prereq: CSEC 1113
Total hours	16	GPA	

Semester 6	Hrs.	Grade	Semester 6
Fine Arts & Humanities	3		
*General Elective	3		
CSEC 3223- Programming Embedded Systems	3		Prereq: COMS 2213 & CSEC 2223
CSEC 3233- Cyber Defense II	3		Prereq: CSEC 3123
CSEC 3243- Computer Architecture	3		Prereq: ELEG 2130/2134 and COMS 3703
Total hours	15	GPA	APPLY FOR GRADUATION

Semester 3	Hrs.	Grade	Semester 3
ELEG 2134/2130- Digital Logic Design/Lab	4		Milestone - Prereq COMS 1013/1011
COMS 2203- Programming II	3	#	Milestone - Prereq: # COMS 1013 & # MATH 1113 or higher
MATH 2703-Discrete Mathematics	3		Milestone - Prereq: # MATH 1113 or higher
CSEC 2213- Network Forensics and Incident Response	3		Prereq: CSEC 1113
Social Sciences	3		
Total hours	16	GPA	

Semester 7	Hrs.	Grade	Semester 7
Social Sciences	3		
CSEC 4123- Applied Cryptography	3		Prereq: CSEC 3243
CSEC 4143- Building Secure Software	3		Prereq: CSEC 3243
CSEC 4153- Human Factors in Cybersecurity	3		Prereq: CSEC 3223
CSEC 4233- Legal Issues in Cybersecurity	3		Prereq: Jr Standing
Total hours	15	GPA	

Semester 4	Hrs.	Grade	Semester 4
Science with Lab	4		
COMM 2173- Business and Professional Speaking	3		COMM 2003 Public Speaking may sub
COMS 2213- Data Structures	3		Milestone - Prereq: MATH 2703 and # in COMS 2203
COMS 2223- Computer Organization and Prog.	3		Prereq: COMS 2203 & ELEG 2134
CSEC 2223- Virtualization	3		Spring Only Prereq: CSEC 1113
Total hours	16	GPA	COMS ADVISOR ASSIGNED

Semester 8	Hrs.	Grade	Semester 8
CSEC 4213- Information Systems Risk Management	3		Prereq: CSEC 2113 & 3233
CSEC 4243- Software Security Analysis & Reverse Engineering	3		Graduation Requirements: Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120 2.00+ GPA
CSEC 4293- Cybersecurity Capstone Project	3		
General Elective (3000-4000)	4		
Total Hours	13	GPA	

The Arkansas Course Transfer System (ACTS) is designed to assist in planning the academic progress of students. This system contains information about the transferability of courses within Arkansas public colleges and universities. The Arkansas Course Transfer System can be accessed at <https://www.adhe.edu/students-parents/colleges-universities/transfer-info.-for-students/>

indicates a "C" or higher is required

Fine Arts and Humanities
ART 2123 Experiencing Art (ACTS=ARTA1003)
MUS 2003 Introduction to Music (ACTS=MUSC1003)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)
ENGL 2173 Introduction to Film
JOUR 2173 Introduction to Film
ENGL 2183 Honors Introduction to Film
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)
ENGL 2023 Honors World Literature
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)
PHIL 2043 Honors Introduction to Philosophy
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)

U.S. History & Government
HIST 1903 Survey of American History
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)
HIST 2043 Honors United States History to 1877
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
POLS 2003 American Government (ACTS=PLSC2003)
Science with Lab
BIOL 1014- Intro. to Biological Science (ACTS= BIOL1004)
BIOL/PHSC 1004- Principles of Environmental Science
GEOL 1014- Physical Geology (ACTS= GEOL 1114)
PHSC 1013/1021- Physical Sci/Lab (ACTS= PHSC 1004)

General Electives: 6 hours (3 hours must be 3000-4000 level)
 *TECH 1013 Introduction to the University is a sub for TECH 1001 Orientation to University. General Electives would reduce from 3 hours to 1 hour.

Shading indicates courses that would directly apply to the AAS-CSEC degree.

Social Sciences
ECON 2013 Principles of Economics II (ACTS=ECON2203)
SOC 1003 Introductory Sociology (ACTS=SOC1013)
PSY 2003 General Psychology (ACTS=PSYC1103)
ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
GEOG 2013 Regional Geography of the World (ACTS=GEOG2103)
AMST 2003 American Studies
FIN 2013 Personal Finance
LEAD 1003 Introduction to Leadership