

2024-2025 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 <https://catalog.atu.edu/>

#Prerequisite Courses: ENGL 0303 ___ MATH 0803 ___ MATH 1003 ___ MATH 0903 ___ MATH 1113 ___ MATH 1110 ___ MATH 1203 ___

Possible Careers: Private and Government Sectors, Information Security Management, IT Security Consulting, Protecting Systems from Cyberattacks

Sample Schedule	Hrs.	Grade	Milestones/Notes	Semester 1
ENGL 1013-Comp I (ACTS=ENGL 1013)	3	#		
Fine Arts & Humanities	3			
MATH 2243- Calculus for Business & Econ. (ACTS=MATH 2203)	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
CSEC 1003- Introduction to Cybersecurity	3			
Total hours	16	GPA		

Sample Schedule	Hrs.	Grade	Milestones/Notes	Semester 5
Science with Lab	4			
STAT 2163- Intro to Statistical Methods	3		Prereq: MATH 1003 or higher	
CSEC 3123- Cyber Defense I	3		Fall Only Prereq: CSEC 2213 & CSEC 2223	
CSEC 3243- Computer Architecture	3		Fall Only Prereq: COMS 2223	
CSEC 4133- Large Scale Distributed Systems	3		Fall Only Prereq: CSEC 2223 and junior standing in CSEC	
Total hours	16	GPA		

Semester 2	Hrs.	Grade	Milestones/Notes	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#		
Science with Lab	4			
COMS 1013- Programming Foundations I	3	#	Prereq: MATH 1113 or higher	
COMS 1011- Programming Foundations I Lab	1	#	PASS/FAIL - Coreq: COMS 1013	
CSEC 1213- Wireless and Cellular Security	3		Spring Only Prereq: CSEC 1113	
Total hours	14	GPA		

Semester 6	Hrs.	Grade	Milestones/Notes	Semester 6
Fine Arts & Humanities	3			
COMS 3233- Data Design and Implementation	3		Prereq: COMS 2203	
CSEC 3223- Programming Embedded Systems	3		Spring Only Prereq: COMS 2213 & CSEC 2223	
CSEC 3233- Cyber Defense II	3		Spring Only Prereq: CSEC 3123	
COMS 3703- Advanced Operating Systems	3		Prereq: COMS 2213 & COMS 2223	
Total hours	15	GPA		APPLY FOR GRADUATION

Semester 3	Hrs.	Grade	Milestones/Notes	Semester 3
Social Sciences	3			
COMS 2203- Programming Foundations II	3	#	Prereq: # COMS 1013 & # MATH 1113 or higher	
MATH 2703-Discrete Mathematics	3		Prereq: # MATH 1113 or higher	
CSEC 2213- Network Forensics and Incident Response	3		Fall Only Prereq: CSEC 1113	
CSEC 2223- Virtualization	3		Fall Only Prereq: CSEC 1113	
Total hours	15	GPA		

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

Semester 4	Hrs.	Grade	Milestones/Notes	Semester 4
COMM 2173- Business and Professional Speaking	3		COMM 2003 Public Speaking may sub	
COMS 2213- Data Structures	3		Prereq: MATH 2703 and # in COMS 2203	
COMS 2323- Programming in Python	3		Prereq: COMS 2203	
COMS 2223- Computer Organization and Prog.	3		Prereq: COMS 2203 & MATH 2703	
General Elective	3			
Total hours	15	GPA		COMS ADVISOR ASSIGNED

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
CSEC 4213- Information Systems Risk Management	3		Prereq: CSEC 2113 & 3233	
CSEC 4243- Software Security Analysis & Reverse Engineering	3			
CSEC 4293- Cybersecurity Capstone Project	3			
U.S. History/Government	3			
General Elective (3000-4000 level)	2			
Total Hours	14	GPA		2.00+ 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 by searching keyword "ACTS" at <https://adhe.edu/>

General Electives: 5 hours (2 hours must be 3000-4000 level)

indicates a "C" or higher is required

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

Fine Arts and Humanities	U.S. History & Government
ART 2123 Experiencing Art (ACTS=ARTA1003)	HIST 1903 Survey of American History
MUS 2003 Survey of Music History (ACTS=MUSC1003)	HIST 2003 U.S. History to 1877 (ACTS=HIST2113)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)	HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
ENGL/JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)	
1013 from SPAN, FR, GER, JPN, CHIN, or LAT	
1023 from SPAN, FR, GER, JPN, CHIN, or LAT	
LEAD 2003 Ethics in Leadership	

University Honors students should consult Course Catalog for appropriate Fine Arts/Humanities, US History/Government and Social Science options for University Honors Curriculum.

Social Sciences	Science with Lab
HIST 1503 World History to 1500 (ACTS=HIST1113)	ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
HIST 1513 World History since 1500 (ACTS=HIST1123)	ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)	GEOG 2013 Regional Geography of the World (ACTS=GEOG2103)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)	AMST 2003 American Studies
HIST 1903 Survey of American History	FIN 2013 Personal Finance
POLS 2003 American Government (ACTS=PLSC2003)	LEAD 1003 Introduction to Leadership
ECON 2003 Principles of Macroeconomics (ACTS=ECON2103)	
ECON 2013 Principles of Microeconomics (ACTS=ECON2203)	
SOC 1003 Introductory Sociology (ACTS=SOC11013)	
PSY 2003 General Psychology (ACTS=PSYC1103)	

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)

Consider CP in Computer Programming and CP in Computer Networking, see catalog.