

2018-2019 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 _____ ENGL 0404 _____ READ 0103 _____ MATH 0803 _____ MATH 1003 _____ MATH 0903 _____ MATH 0900 _____ MATH 1113 _____ MATH 1110 _____ MATH 1203 _____ MATH 1914 _____

Sample Schedule

Semester 1	Hrs.	Grade	Milestones/Notes	Semester 1
ENGL 1013-Comp I (ACTS=ENGL 1013)	3	#		
MATH 2914- Calculus I (ACTS= MATH 2405)	4		# required for Gen Ed. Milestone	
U.S. History/Government	3			
TECH 1001-Orientation to the University	1			
CSEC 1113- Introduction to Networking	3		Milestone	
Fine Arts & Humanities	3			
Total hours	17	GPA		

Semester 2	Hrs.	Grade	Milestones/Notes	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#		
Social Sciences	3			
CSEC 1213- Wireless Security and Cellular Technologies	3		Prereq: CSEC 1113	
COMS 2104- Foundations of Computer Prog. I	4	#	Milestone (Do not need COMS 1403/1411)	
Total hours	13	GPA		

Semester 3	Hrs.	Grade	Milestones/Notes	Semester 3
ELEG 2134/2130- Digital Logic Design/Lab	4		Prereq or Coreq: COMS 2104	
COMS 2203- Foundations of Computer Prog II	3		Milestone - Prereq: COMS 2104	
COMS 2733- Intro to Computer Forensics and Security	3			
COMS 2903-Discrete Structures	3		Milestone - Prereq: COMS 2104	
CSEC 2113- Introduction to Information Systems	3			
Total hours	16	GPA		

Semester 4	Hrs.	Grade	Milestones/Notes	Semester 4
COMM 2173- Business and Professional Speaking	3		No substitutions allowed	
Science with Lab	4			
COMS 2213- Data Structures	3		Milestone - Prereq: COMS 2203 & 2903	
CSEC 2213- Forensics and Incident Responses	3		Prereq: CSEC 1113	
CSEC 2223- Virtualization	3			
Total hours	16	GPA	COMS ADVISOR ASSIGNED	

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 <http://acts.adhe.edu/>

indicates a "C" or higher is required

Fine Arts and Humanities	U.S. History & Government
ART 2123 Experiencing Art (ACTS=ARTA1003)	HIST 1903 Survey of American History
MUS 2003 Introduction to Music (ACTS=MUSC1003)	HIST 2003 U.S. History to 1877 (ACTS=HIST2113)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)	HIST 2043 Honors United States History to 1877
ENGL 2173 Introduction to Film	HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	Science with Lab
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	BIOL 1014- Intro. to Biological Science (ACTS= BIOL1004)
ENGL 2023 Honors World Literature	BIOL/PHSC 1004- Principles of Environmental Science
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	GEOL 1014- Physical Geology (ACTS= GEOL 1114)
PHIL 2043 Honors Introduction to Philosophy	PHSC 1013/1021- Physical Sci/Lab (ACTS= PHSC 1004)
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)	

Sample Schedule

Semester 5	Hrs.	Grade	Milestones/Notes	Semester 5
Science with Lab	4			
MATH 3153- Applied Statistics I	3		MATH 2163 can substitute	
COMS 3213- Adv. Data Structures and Algorithm Design	3		Prereq: COMS 2213	
CSEC 3113- Assembly Programming	3		Prereq: COMS 2104 & 2903	
CSEC 3123- Cyber Defense I	3		Prereq: CSEC 2223	
Total hours	16	GPA		

Semester 6	Hrs.	Grade	Milestones/Notes	Semester 6
Fine Arts & Humanities	3			
COMS 3703- Operating Systems	3		Prereq: COMS 2213	
CSEC 3223- Programming Embedded Systems	3		Prereq: COMS 2213 & CSEC 3113	
CSEC 3233- Cyber Defense II	3		Prereq: CSEC 3123	
CSEC 3243- Computer Architecture	3		Prereq: COMS 3703	
Total hours	15	GPA	APPLY FOR GRADUATION	

Semester 7	Hrs.	Grade	Milestones/Notes	Semester 7
Social Sciences	3			
CSEC 4123- Applied Cryptography	3		Prereq: CSEC 3223	
CSEC 4133- Large Scale Distributed Systems	3		Prereq: CSEC 3223	
CSEC 4143- Building Secure Software	3		Prereq: COMS 2213	
General Elective (3000-4000)	3			
Total hours	15	GPA		

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
CSEC 4213- Information Systems Risk Management	3		Prereq: CSEC 2113 & 2213	
CSEC 4233- Legal Issues in Cybersecurity	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 4243/4240- Software Sec Analysis and Rev Eng/LAB	3			
CSEC 4293- Cybersecurity Capstone Project/Internship	3			
Total Hours	12	GPA		

General Electives: 3 hrs. (3000-4000 level)

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

Social Sciences
HIST 1503 World Civilization to 1500 (ACTS=HIST1113)
HIST 1513 World Civilization since 1500 (ACTS=HIST1123)
HIST 1543 Honors World Civilization to 1500
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
HIST 2043 Honors U.S. History to 1877
HIST 1903 Survey of American History
POLS 2003 American Government (ACTS=PLSC2003)
ECON 2003 Principles of Economics I (ACTS=ECON2103)
ECON 2103 Honors Principles of Economics I
ECON 2013 Principles of Economics II (ACTS=ECON2203)
SOC 1003 Introductory Sociology (ACTS=SOCI1013)
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