2020-2021 Degree Map-Bachelor of Science in Computer Science

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: Computer and Information Systems Manager, Computer Programmer, Computer Systems Analyst

#Prerequisite Courses: ENGL 0303_____ MATH 0803_____ MATH 1003_____ MATH 0903_____ MATH 0900_____ MATH 1113_____ MATH 1110_____ MATH 1203_____ MATH 1914_____ COMS 1003_____ BUAD 2003_____

Sample Schedule — Milestones/Notes

Semester 1	Hrs.	Grade	Semester 1
ENGL 1013-Comp I (ACTS=ENGL 1013)	3	#	
MATH 2914- Calculus I (ACTS= MATH 2405)	4	#	Prereq: MATH ACT >26, or # in MATH 1203 or 1914) Milestone
U.S. History/Government	3		
TECH 1001-Orientation to the University	1		
COMS 1403- Orientation to Computing, Info, & Tech	3		Co-req: COMS 1411 & MATH 1113 or higher Milestone
COMS 1411- Computer and Information Science Lab	1		Co-req: COMS 1403 Milestone
Total hours	15	GPA	

Semester 2	Hrs.		Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
Social Sciences	3		
MATH 2924- Calculus II (ACTS= MATH 2505)	4		(# for some upper-div courses in math minor) Milestone
COMS 2003- Microcomputer Applications	3		Prereq: COMS 1003 or BUAD 2003
COMS 2104- Foundations of Computer Prog. I	4	#	Milestone - Prereq: COMS 1403/1411 & # in MATH 1113 or higher
Total hours	17	GPA	

Semester 3	Hrs.		Semester 3
ELEG 2134/2130- Digital Logic Design/Lab	4		Milestone - Prereq COMS 2104
Fine Arts & Humanities	3		
COMS 2203- Foundations of Computer Prog II	3		Milestone - Prereq: # COMS 2104 & # MATH 1113 or higher
COMS 2903-Discrete Structures	3		Milestone - Prereq: # COMS 2104 & # MATH 1113 or higher
Total hours	13	GPA	

Semester 4	Hrs.		Semester 4
ENGL 2053-Technical Writing (ACTS=ENGL 2023)	3		Prereq: ENGL 1023
Science Sequence I (excluding BIOL)*	4		
COMS 2213- Data Structures	3		Milestone - Prereq: COMS 2203 & 2903
COMS 2223- Computer Organization and Prog.	3		Prereq: COMS 2203 & ELEG 2134
COMS 3913- Advanced Discrete Structures	3		Prereq: COMS 2203 & 2903 & MATH 2914
Total hours	16	GPA	COMS ADVISOR ASSIGNED

Semester 5	Hrs.	Grade	Semester 5
Science Sequence II (excluding BIOL)*	4		
STAT 3153- Applied Statistics	3		Prereq: MATH 2924
COMS 2703- Computer Networks and Architecture	3		Milestone - Prereq: COMS 1403/1411
COMS 2701- Networking and Architecture Lab	1		Co-Req COMS 2703
COMS 3213- Adv. Data Structures and Algorithm Design	3		Prereq: COMS 2213 & 3913
COMS 3233- Data Design and Implementation	3		Prereq: COMS 2003 & 2203 & 2903
Total hours	17	GPA	

Semester 6	Hrs.		Semester 6
Fine Arts & Humanities	3		
COMM 2173- Business and Professional Speaking	3		No substitutions allowed
COMS 3703- Operating Systems	3		Prereq: COMS 2213 and 2223 or CSEC 3113
COMS 4163- Personal Software Engineering	3		Prereq: COMS 3213
COMS 4703- Data Comms. and Networks	3		Prereq: COMS 2703 & 2903; 2223 or 3903
COMS 4701- Data Comms. and Networks Lab	1		Co-Req COMS 4703
Total hours	16	GPA	**APPLY FOR GRADUATION**

Semester 7	Hrs.		Semester 7
Social Sciences	3		
MATH 4003- Linear Algebra I	3		Prereq: MATH 2924
COMS 3053- Implications of Technology on Society	3		
COMS 4033- Systems and Analysis Design I	3		Prereq: COMS 3233
COMS 4103- Organization of Programming Languages	3		Prereq: COMS 2213 & 2223 & 3913
Total hours	15	GPA	

Semester 8	Hrs.		Semester 8
COMS 4043- Systems Analysis and Design II	3		
COMS 4403- Compiler Design	3		**Graduation Requirements:**
COMS 4053, 4063 or approved MGMT elective**	3		Min. hours 3000-4000 level courses: 40
Math*** or Science Elective	2		No more than 4 PE activity hours
			Min. hours required:120
Total Hours	11	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 at http://acts.adhe.edu/

General Electives: 0 hours

Students should consider minor in mathematics. See catalog for details.

*May be satisfied by any 1-year science sequence that requires a lab in each course, excluding biological science courses.

**MGMT Course must be approved jointly by both MGMK and COMS Department Head

# indicates a "C" or higher is required

***MATH Elective must be beyond Pre-Cal

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 Sequence I & II (excluding BIOL)*
CHEM 2124/2120 & 2134/2130- Gen Chem I & II (ACTS=CHEM1414/1424)
GEOL 1014/2024- Physical and Historical Geol (ACTS=GEOL1114/1134)
PHYS 2014/2000 & 2024/2010- Algebra-Based Physics I & II (ACTS=PHYS2014/2024)
PHYS 2114/2000 & 2124/2010- Calculus-Based Physics I & II (ACTS=PHYS2034/2044)

Social Sciences
HIST 1503 World History to 1500 (ACTS=HIST1113)
HIST 1513 World History since 1500 (ACTS=HIST1123)
HIST 1543 Honors World History 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