

**2022-2023 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 1113 \_\_\_ MATH 1110 \_\_\_ MATH 1203 \_\_\_ MATH 1914 \_\_\_

Sample Schedule	Milestones/Notes		
Semester 1	Hrs.	Grade	Semester 1
ENGL 1013-Comp I (ACTS=ENGL 1013)	3	#	
CSEC 1113- Introduction to Networking	3		
COMS 1333- Web and Mobile Technologies	3		
*TECH 1001-Orientation to the University	1		TECH 1013 may sub. Reduce general electives to 1 hr.
MATH 2914- Calculus I (ACTS= MATH 2405)	4	#	Prereq: MATH ACT >26, or # in MATH 1203 or MATH 1914) Milestone
<b>Total hours</b>	<b>14</b>	<b>GPA</b>	

Semester 2	Hrs.	Grade	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
Social Sciences	3		
COMS 1013- Programming I	3	#	Prereq: MATH 1113 or higher
COMS 1011- Programming I Lab	1	#	PASS/FAIL - Coreq: COMS 1013
COMS 2703- Computer Hardware & Architecture	3		
General Elective	3		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	

Semester 3	Hrs.	Grade	Semester 3
ELEG 2134/2130- Digital Logic Design/Lab	4		Milestone - Prereq COMS 1013/1011
MATH 2924- Calculus II (ACTS= MATH 2505)	4		(# for some upper-div courses in math minor) Milestone
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
<b>Total hours</b>	<b>17</b>	<b>GPA</b>	

Semester 4	Hrs.	Grade	Semester 4
ENGL 2053-Technical Writing (ACTS=ENGL 2023)	3		Prereq: ENGL 1023
Science with Lab	4		
COMS 2213- Data Structures	3		Milestone - Prereq: MATH 2703 and # in COMS 2203
COMS 2223- Computer Organization and Prog.	3		Spring Only - Prereq: COMS 2203 & ELEG 2134
COMM 2173- Business and Professional Speaking	3		COMM 2003 Public Speaking may sub
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	<b>COMS ADVISOR ASSIGNED</b>

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/>

**Shaded classes indicate classes toward AAS-Information Technology**

# 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 2183 Honors Introduction to Film	<b>Science with Lab</b>
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	BIOL 1014- Intro. to Biological Science (ACTS= BIOL1004)
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	BIOL/PHSC 1004- Principles of Environmental Science
ENGL 2023 Honors World Literature	GEOL 1014- Physical Geology (ACTS= GEOL 1114)
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	PHSC 1013/1021- Physical Sci/Lab (ACTS= PHSC 1004)
PHIL 2043 Honors Introduction to Philosophy	
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)	

Sample Schedule	Milestones/Notes		
Semester 5	Hrs.	Grade	Semester 5
COMS 3703- Advanced Operating Systems	3		Fall Only Prereq: COMS 2213 & COMS 2223
COMS 3053- Ethical Issues in Technology	3		Prereq: Junior standing in COMS
COMS 3213- Algorithm Design & Analysis	3		Fall Only - Prereq: COMS 2213
COMS 3233- Data Design and Implementation	3		Prereq: COMS 2203
Approved Elective (3000-4000)	3		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 6	Hrs.	Grade	Semester 6
Fine Arts & Humanities	3		
Science with Lab	4		
STAT 3153- Applied Statistics	3		Prereq: MATH 2924
COMS 3313- Software Engineering	3		Spring Only
Approved Elective (3000-4000)	2		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	<b>APPLY FOR GRADUATION</b>

Semester 7	Hrs.	Grade	Semester 7
US History/Government	3		
Fine Arts & Humanities	3		
MATH 4003- Linear Algebra I	3		Prereq: MATH 2924
COMS 4063- IT Project Administration	3		Prereq: Junior standing in COMS
COMS 4103- Organization of Programming Languages	3		Fall Only - Prereq: COMS 2213 & 2223
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 8	Hrs.	Grade	Semester 8
Social Sciences	3		<b>Graduation Requirements:</b> Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120 2.00+ GPA
COMS 4413- Parallel and Distributed Computing	3		
COMS 4913- Capstone	3		
Approved Elective (3000-4000)	3		
<b>Total Hours</b>	<b>12</b>	<b>GPA</b>	

**General Electives:** 3 hours. **Approved 3000-4000 Electives:** 10 hours

\*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.

\*\*If taking a MATH elective, math elective must be beyond Pre-Cal

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

Social Sciences	
HIST 1503 World History to 1500 (ACTS=HIST1113)	ECON 2013 Principles of Economics II (ACTS=ECON2203)
HIST 1513 World History since 1500 (ACTS=HIST1123)	SOC 1003 Introductory Sociology (ACTS=SOCI1013)
HIST 1543 Honors World History to 1500	PSY 2003 General Psychology (ACTS=PSYC1103)
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)	ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)	ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
HIST 2043 Honors U.S. History to 1877	GEOG 2013 Regional Geography of the World (ACTS=GEOG2103)
HIST 1903 Survey of American History	AMST 2003 American Studies
POLS 2003 American Government (ACTS=PLSC2003)	FIN 2013 Personal Finance
ECON 2003 Principles of Economics I (ACTS=ECON2103)	LEAD 1003 Introduction to Leadership
ECON 2103 Honors Principles of Economics I	