2021-2022 Degree Map Program: Bachelor of Science Computer Engineering

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/

Employment Information: Electrical and Computer engineers design, develop, build, and test computer hardware, software, and systems. Other electrical systems may include robotics, controls, communications systems, and electronic equipment.

#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	#	
Fine Arts & Humanities	3		
MATH 2914 - Calculus I (ACTS= MATH 2405)	4	#	Milestone
CHEM 2124/2120 - General Chemistry I (ACTS= CHEM 1414)	4		
ELEG 1011 - Intro. to Electrical Engineering	1		
TECH 1001 - Orientation to the University	1		
Total hours	16	GPA	

Semester 2	Hrs.		Semester 2
ENGL 1023 - Comp II (ACTS= ENGL 1023)	3	#	
COMS 2104 - Foundations of Computer Programming I	4	#	(COMS 1403/1411 not required)
MATH 2924 - Calculus II (ACTS= MATH 2505)	4	#	Milestone
ELEG 2134/2130 - Digital Logic Design/ Lab	4		Pre-req: ELEG 1011 or COMS 2104 -Milestone
Total hours	15	GPA	

Semester 3	Hrs.		Semester 3
PHYS 2114/2000 - Calculus-Based Physics I (ACTS= PHYS 2034)	4		Milestone
COMS 2203 - Foundations of Computer Prog II	3		Milestone
MATH 3243 - Differential Equations I	3		Milestone
ELEG 2103 - Electric Circuits I	3		Milestone
ELEG 3133 - Microprocessor Systems Design	3		
Total hours	16	GPA	

Semester 4	Hrs.		Semester 4
PHYS 2124/2010 - Calculus-Based Physics II (ACTS= PHYS 2044)	4		Milestone
MATH 2934 - Calculus III (ACTS= MATH 2603)	4		Milestone
STAT 3153 Applied Statistics 1	3		
ELEG 2113/2111 - Electric Circuits II/ Lab	4		Milestone
Total hours	15	GPA	**ELEG 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 https://www.adhe.edu/students-parents/colleges-universites/transfer-info.-for-students/

Semester 5	Hrs.	Grade	Semester 5
Social Sciences	3		
Fine Arts & Humanities	3		
COMS 2903 - Discrete Structures for Technical Majors	3		
ELEG 3003 or MCEG 3003 - Modeling Design	3		Milestone
ELEG 3103 - Electronics I	3		Fall Only
Total hours	15	GPA	

Semester 6	Hrs.		Semester 6
COMS 2213 - Data Structures	3		Spring only
COMS 2223 - Computer Organization and Prog.	3		Spring only
ELEG 3123 - Signals and Systems	3		Spring only
ELEG 3143 - Electromagnetics	3		Spring only
ELEG 4103 - Electronics II	3		Spring only
Total hours	15	GPA	**APPLY FOR GRADUATION**

Semester 7	Hrs.		Semester 7
ELEG 4113 - Digital Signal Processing	3		Fall Only
ELEG 4133 - Advanced Digital Design	3		Fall Only
ELEG 4143 - Communication Systems I	3		Fall Only
ELEG 4191 - Electrical Design Project I	1		
ELEG 4303 - Control Systems	3		
ELEG 4202 or MCEG 4202 - Engineering Design	2		Milestone
Total hours	15	GPA	

Semester 8	Hrs.		Semester 8
U.S. History/Government	3		
COMS 3703 - Operating Systems	3		Spring only
ELEG 4122 - Electrical Systems Lab	2		Spring only
ELEG 4192 - Electrical Design Project II	2		**Graduation Requirements:**
ELEG Engineering Elective (3000-4000 level)	3		No more than 4 PE activity hours
Total Hours	13	GPA	Min. hours required:120

General Electives: 0

2.00+ GPA

Min. hours 3000-4000 level courses: 40

# indicates a "C" or better 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 United States History to 1877 (ACTS=HIST2113)
HIST 2043 Honors United States History to 1877
HIST 2013 United States History from 1877 (ACTS=HIST2123)
POLS 2003 American Government (ACTS=PLSC2003)

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