

2020-2021 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 0900 _____ 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- Electrical Circuits I	3		Milestone
ELEG 3133- Microprocessor Systems Design	3		
Total hours	16	GPA	

Sample Schedule		Milestones/Notes	
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
ELEG 3173 or MATH 3173- Math Methods	3		Spring only
ELEG 2113/2111- Electrical 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 <http://acts.adhe.edu/>

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 United States 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 2103 United States History from 1877 (ACTS=HIST2123)
JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
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)	

Sample Schedule		Milestones/Notes	
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	

Sample Schedule		Milestones/Notes	
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

Sample Schedule		Milestones/Notes	
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	

Sample Schedule		Milestones/Notes	
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		
ELEG Engineering Elective (3000-4000 level)	3		
Total Hours	13	GPA	

General Electives: 0

indicates a "C" or better is required

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

Graduation Requirements:
 No more than 4 PE activity hours
 Min. hours required:120
 2.00+ GPA
 Min. hours 3000-4000 level courses: 40