

2019-2020 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 ___ 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	#			
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.	Grade	Milestones/Notes	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		Milestone		
Total hours		15	GPA			
Semester 3		Hrs.	Grade	Milestones/Notes	Semester 3	
PHYS 2114/2000- General 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			
Semester 4		Hrs.	Grade	Milestones/Notes	Semester 4	
PHYS 2124/2010- General 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

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)

Sample Schedule

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

Semester 6		Hrs.	Grade	Milestones/Notes	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.	Grade	Milestones/Notes	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.	Grade	Milestones/Notes	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