

2022-2023 Degree Map Program: Bachelor of Science in Electrical Engineering, Major: Electrical 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 engineers design, develop, build, and test, electrical and electronic devices and systems. These systems include robotics, controls, electric motors, radar and navigation systems, communications systems, electronic equipment, and power generation and distribution devices and systems including renewable energy applications.

#Prerequisite Courses: ENGL 0303 _____ MATH 0803 _____ MATH 1003 _____ MATH 0903 _____ 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			
CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414)	4		Milestone	
MATH 2914- Calculus I (ACTS= MATH 2405)	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 1013- Programming I	3	#	Co-Req: COMS 1011	
COMS 1011- Programming I Lab	1	#	Lab is Pass/Fail	
MATH 2924- Calculus II (ACTS= MATH 2505)	4	#	Milestone	
ELEG 2134/2130- Digital Logic Design/ Lab	4		Pre-req: ELEG 1011 -Milestone	
Total hours	15	GPA		

Semester 3	Hrs.	Grade	Milestones/Notes	Semester 3
COMS 2203- Programing II	3			
PHYS 2114/2000- Calculus-Based Physics I (ACTS= PHYS 2034)	4		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- Calculus-Based Physics II (ACTS= PHYS 2044)	4		Milestone	
MATH 2934- Calculus III (ACTS= MATH 2603)	4		Milestone	
ELEG 2113/2111- Electrical Circuits II/ Lab	4		Milestone	
STAT 3153 Applied Statistics 1	3			
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-universities/transfer-info.-for-students/>

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 2013 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

Semester 5	Hrs.	Grade	Milestones/Notes	Semester 5
ELEG 3003 or MCEG 3003- Modeling Design	3		Milestone	
ELEG 3103- Electronics I	3		Fall Only Course - Milestone	
ELEG 3153- Electrical Machines	3		Fall Only Course- Milestone	
Technical Elective- Department Approval Required	3			
ELEG Engineering Elective (3000-4000 level)	3			
Total hours	15	GPA		

Semester 6	Hrs.	Grade	Milestones/Notes	Semester 6
ELEG 3123- Signals and Systems	3		Spring only	
ELEG 3143- Electromagnetics	3		Spring only	
ELEG 4103- Electronics II	3		Milestone - Spring Only	
ELEG 4202 or MCEG 4202- Engineering Design	2		Milestone	
MATH 2703- Discrete Math	3			
Total hours	14	GPA	APPLY FOR GRADUATION	

Semester 7	Hrs.	Grade	Milestones/Notes	Semester 7
Social Sciences	3			
U.S. History/Government	3			
ELEG 4113-Digital Signal Processing	3		Fall Only	
ELEG 4143- Communication Systems I	3		Fall Only	
ELEG 4191- Electrical Design Project I	1			
ELEG 4303- Control Systems	3			
Total hours	16	GPA		

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
ELEG 4122- Electrical Systems Lab	2		Spring only	
Fine Arts & Humanities	3			
ELEG 4192- Electrical Design Project II	2		Graduation Requirements: Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120 2.00+ GPA	
Technical Elective- Department Approval Required	3			
ELEG Engineering Elective (3000-4000 level)	3			
Total Hours	13	GPA		

General Electives: 0

indicates a "C" or better is required (C > required in COMS 2104 only as prereq for COMS 2203)

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
FIN 2013 Personal Finance
LEAD 1003 Introduction to Leadership