

2023-2024 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	Milestones/Notes		
Semester 1	Hrs.	Grade	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.		Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
COMS 1013- Programming Foundations I	3	#	Co-Req: COMS 1011
COMS 1011- Programming Foundations 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	

Sample Schedule	Milestones/Notes		
Semester 3	Hrs.		Semester 3
COMS 2203- Programing Foundations II	3		SEE NOTE 1: AB2M
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	

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 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 by searching keyword "ACTS" at <https://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/JOUR 2173 Introduction to Film ENGL 2003 Introduction to World Literature (ACTS=ENGL2113) ENGL 2013 Intro. to American Literature (ACTS=ENGL2653) PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103) PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003) 1013 from SPAN, FR, GER, JPN, CHIN, or LAT 1023 from SPAN, FR, GER, JPN, CHIN, or LAT	U.S. History & Government HIST 1903 Survey of American History HIST 2003 U.S. History to 1877 (ACTS=HIST2113) HIST 2013 U.S. History since 1877 (ACTS=HIST2123) POLS 2003 American Government (ACTS=PLSC2003)
NOTE 1 - Consider Accelerated BSEE Electrical Engineering to MENG Electrical Engineering. See Catalog BEFORE Junior Year.	

Sample Schedule	Milestones/Notes		
Semester 5	Hrs.	Grade	Semester 5
ELEG 3003 or MCEG 3003- System Modeling & Analysis	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	

Sample Schedule	Milestones/Notes		
Semester 6	Hrs.		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

Sample Schedule	Milestones/Notes		
Semester 7	Hrs.		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	

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

General Electives: 0

indicates a "C" or better is required (C > required in COMS 1013/1011 only as prereq for COMS 2203)

Social Sciences
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