

**2017-2018 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/academics/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 \_\_\_\_\_ ENGL 0404 \_\_\_\_\_ READ 0103 \_\_\_\_\_ MATH 0803 \_\_\_\_\_ MATH 1003 \_\_\_\_\_ MATH 0903 \_\_\_\_\_ MATH 0900 \_\_\_\_\_ MATH 1110 \_\_\_\_\_ MATH 1203 \_\_\_\_\_ MATH 1914 \_\_\_\_\_

**Sample Schedule**

Semester 1	Hrs.	Grade	Milestones/Notes	Semester 1
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#		
CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414)	4			
MATH 2914- Calculus I (ACTS= MATH 2405)	4		#C or > required for Gen Ed. Milestone	
TECH1001- Orientation to the University	1			
ELEG 1011- Intro. to Electrical Engineering	1			
U.S. History/Government	3			
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
COMS 2203- Foundations of Computer Prog II	3			
PHYS 2114/2000- General 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
ELEG 3173 or MATH 3173- Math Methods	3		Spring only	
PHYS 2124/2010- General 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	
Total hours	15	GPA	<b>ELEG ADVISOR ASSIGNED</b>	

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 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

**U.S. History & Government**  
 HIST 1903 Survey of American History  
 HIST 2003 United States History to 1877 (ACTS=HIST1113)  
 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
Technical Elective- Department Approval Required	3			
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	
Engineering Elective (3000-4000 level)	3			
Total hours	15	GPA		

Semester 6	Hrs.	Grade	Milestones/Notes	Semester 6
MATH Elective (department approval required)	3			
ELEG 3123- Signals and Systems	3		Spring only	
ELEG 3143- Electromagnetics	3		Spring only	
ELEG 4103- Electronics II	3		Milestone - Spring Only	
Fine Arts & Humanities	3			
Total hours	15	GPA	<b>APPLY FOR GRADUATION</b>	

Semester 7	Hrs.	Grade	Milestones/Notes	Semester 7
Social Sciences	3			
ELEG 4191- Electrical Design Project I	1			
ELEG 4113-Digital Signal Processing	3		Fall Only	
ELEG 4143- Communication Systems I	3		Fall Only	
ELEG 4202 or MCEG 4202- Engineering Design	2		Milestone	
ELEG 4303- Control Systems	3			
Total hours	15	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		<b>Graduation Requirements:</b> Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120	
Technical Elective- Department Approval Required	3			
Engineering Elective (3000-4000 level)	3		Min. hours required:120	
Total Hours	13	GPA	2.00+ GPA	

General Electives: 0

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

Social Sciences	Social Sciences
HIST 1503 World Civilization to 1500 (ACTS=HIST1113)	ECON 2013 Principles of Economics II (ACTS=ECON2203)
HIST 1513 World Civilization since 1500 (ACTS=HIST1123)	SOC 1003 Introductory Sociology (ACTS=SOC1013)
HIST 1543 Honors World Civilization to 1500	PSY 2003 General Psychology (ACTS=PSYC1103)
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)	ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)	ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
HIST 2043 Honors U.S. History to 1877	GEOG 2013 Regional Geography of the World (ACTS=GEOG2103)
HIST 1903 Survey of American History	AMST 2003 American Studies
POLS 2003 American Government (ACTS=PLSC2003)	
ECON 2003 Principles of Economics I (ACTS=ECON2103)	
ECON 2103 Honors Principles of Economics I	