

**2014-2015 Degree Map-Bachelor of Science in Electrical Engineering- Traditional Option**

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.

#Remedial Courses (if applicable): ENGL 0303 \_\_\_\_\_ ENGL 0404 \_\_\_\_\_ READ 0103 \_\_\_\_\_ MATH 0903 \_\_\_\_\_

**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	
ELEG 1012- Intro. to Electrical Engineering	2			
Total hours	13	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
MCEG 2023- Engineering Materials	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
Fine Arts & Humanities	3			
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	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=ARTA 1003)  
 MUS 2003 Intro to Music (ACTS=MUSC 1003)  
 TH 2273 Intro to Theatre (ACTS =DRAM 1003)  
 ENGL 2173 Intro to Film  
 JOUR 2173 Intro to Film  
 ENGL 2003 Intro to World Literature (ACTS=ENGL 2113)  
 ENGL 2013 Intro to American Literature (ACTS=ENGL 2653)  
 ENGL 2023 Honors World Literature  
 PHIL 2003 Intro to Philosophy (ACTS=PHIL 1103)  
 PHIL 2043 Honors Introduction to Philosophy

**U.S. History & Government**  
 HIST 1903 Survey of American History  
 HIST 2003 U.S. History I (ACTS=HIST 2113)  
 HIST 2043 Honors U.S. History I  
 HIST 2013 U.S. History II (ACTS=HIST 2123)  
 POLS 2003 American Government (ACTS=PLSC 2003)

Prerequisites (if applicable): MATH 1914 (ACTS=MATH1305) \_\_\_\_\_ OR MATH 1203 (ACTS=MATH1203) \_\_\_\_\_

**Sample Schedule**

Semester 5	Hrs.	Grade	Milestones/Notes	Semester 5
MCEG 2013- Statics	3		Milestone	
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
MCEG 2033- Dynamics	3			
ELEG 3123- Signals and Systems	3		Spring only	
ELEG 3143- Electromagnetics	3		Spring only	
ELEG 3173 or MATH 3173- Math Methods	3		Spring only	
ELEG 4103- Electronics II	3		Milestone - Spring Only	
Total hours	15	GPA	APPLY FOR GRADUATION	

Semester 7	Hrs.	Grade	Milestones/Notes	Semester 7
Social Sciences	3			
ELEG 4113-Digital Signal Processing	3		Fall Only	
ELEG 4122- Electrical Systems Lab	2		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	16	GPA		

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
Fine Arts & Humanities	3			
U.S. History/Government	3			
ELEG 4193- Electrical Design Project	3			
Technical Elective- Department Approval Required	3			
Engineering Elective (3000-4000 level)	3			
Total Hours	15	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
ECON 2103 Honors Principles of Economics I	ECON 2013 Principles of Economics II (ACTS=ECON 2203)
SOC 1003 Intro Sociology (ACTS=SOCI 1013)	PSY 2003 General Psychology (ACTS=PSYC 1103)
ANTH 1213 Intro to Anthropology (ACTS=ANTH 1013)	ANTH 2003 Cultural Anthropology (ACTS=ANTH 2013)
GEOG 2013 Rgnl Geog of the World (ACTS=GEOG 2103)	AMST 2003 American Studies
AGBU 2063 Prin Agri Macroeconomics	AGBU 2073 Prin Agri Microeconomics