

2014-2015 Degree Map-Bachelor of Science in Electrical Engineering- Computer Engineering 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 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.

#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			
Fine Arts & Humanities	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
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	U.S. History & Government
ART 2123 Experiencing Art (ACTS=ARTA 1003)	HIST 1903 Survey of American History
MUS 2003 Intro to Music (ACTS=MUSC 1003)	HIST 2003 U.S. History I (ACTS=HIST 2113)
TH 2273 Intro to Theatre (ACTS =DRAM 1003)	HIST 2043 Honors U.S. History I
ENGL 2173 Intro to Film	HIST 2013 U.S. History II (ACTS=HIST 2123)
JOUR 2173 Intro to Film	POLS 2003 American Government (ACTS=PLSC 2003)
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	

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

Sample Schedule

Semester 5	Hrs.	Grade	Milestones/Notes	Semester 5
Social Sciences	3			
ELEG 3003 or MCEG 3003- Modeling Design	3		Milestone	
ELEG 3103- Electronics I	3		Fall Only	
COMS 2903-Discrete Structures	3			
Fine Arts & Humanities	3			
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 4202 or MCEG 4202- Engineering Design	2		Milestone	
ELEG 4303- Control Systems	3			
Total hours	14	GPA		

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
U.S. History/Government	3			Graduation Requirements:
COMS 3703- Operating Systems	3		Spring only	
ELEG 4122- Electrical Systems Lab	2		Spring only	
ELEG 4193- Electrical Design Project	3			No more than 4 PE activity hours
Engineering Elective (3000-4000 level)	3			Min. hours required:120
Total Hours	14	GPA		2.00+ GPA

General Electives: 0

indicates a "C" or better is required

General Electives	Social Sciences
HIST 1503 World Civilization (ACTS=HIST 1113)	ECON 2103 Honors Principles of Economics I
HIST 1513 World Civilization II (ACTS=HIST 1123)	ECON 2013 Principles of Economics II (ACTS=ECON 2203)
HIST 1543 Honors World Civilization I	SOC 1003 Intro Sociology (ACTS=SOCI 1013)
HIST 2003 U.S. History I (ACTS=HIST 2113)	PSY 2003 General Psychology (ACTS=PSYC 1103)
HIST 2013 U.S. HISTORY II (ACTS=HIST 2123)	ANTH 1213 Intro to Anthropology (ACTS=ANTH 1013)
HIST 2043 Honors U.S. History I	ANTH 2003 Cultural Anthropology (ACTS=ANTH 2013)
HIST 1903 Survey of American History	GEOG 2013 Rgnl Geog of the World (ACTS=GEOG 2103)
POLS 2003 American Government (ACTS=PLSC 2003)	AMST 2003 American Studies
ECON 2003 Principles of Economics I (ACTS=ECON 2103)	AGBU 2063 Prin Agriculture Macroeconomics
	AGBU 2073 Prin Agriculture Microeconomics