

**2024-2025 Degree Map Program- Bachelor of Science in 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 <https://catalog.atu.edu/>

#Prerequisite Courses: ENGL 0303 \_\_\_ MATH 0803 \_\_\_ MATH 1003 \_\_\_ MATH 0903 \_\_\_ MATH 1113 \_\_\_  
MATH 1110 \_\_\_ MATH 1203 \_\_\_ MATH 1914 \_\_\_

Possible Careers: Electronics, Power Systems, Control Systems, and Renewable Energy Systems Engineering.

**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		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	

Semester 2	Hrs.	Grade	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
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 3	Hrs.	Grade	Semester 3
COMS 2203- Programing Foundations II	3		C > required in COMS 1013/1011
PHYS 2114/2000- Calculus-Based Physics I (ACTS= PHYS 2034)	4		
MATH 3243- Differential Equations I	3		
ELEG 2103- Electrical Circuits I	3		
ELEG 3133- Microprocessor Systems Design	3		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	SEE NOTE 1: AB2M

Semester 4	Hrs.	Grade	Semester 4
PHYS 2124/2010- Calculus-Based Physics II (ACTS= PHYS 2044)	4		
MATH 2934- Calculus III (ACTS= MATH 2603)	4		
ELEG 2113/2111- Electrical Circuits II/ Lab	4		
STAT 3153 Applied Statistics 1	3		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	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/>

<p><b>Fine Arts and Humanities</b>                  ART 2123 Experiencing Art (ACTS=ARTA1003)                  MUS 2003 Survey of Music History (ACTS=MUSC1003)                  TH 2273 Introduction to Theatre (ACTS=DRAM 1003)                  ENGL/IOUR 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                  LEAD 2003 Ethics in Leadership</p>	<p><b>U.S. History &amp; Government</b>                  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)</p> <p><b>University Honors students should consult Course Catalog for appropriate Fine Arts/Humanities, US History/Government and Social Science options for University Honors Curriculum.</b></p>
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**Sample Schedule**

**Milestones/Notes**

Semester 5	Hrs.	Grade	Semester 5
ELEG 3003 or MCEG 3003- System Modeling & Analysis	3		
ELEG 3103- Electronics I	3		Fall Only Course
ELEG 3153- Electrical Machines	3		Fall Only Course
Technical Elective	3		Department Approval Required
ELEG Engineering Elective (3000-4000 level)	3		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

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

Semester 7	Hrs.	Grade	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		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	

Semester 8	Hrs.	Grade	Semester 8
ELEG 4122- Electrical Systems Lab	2		Spring only
Fine Arts & Humanities	3		<b>Graduation Requirements:</b> 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		
ELEG Engineering Elective (3000-4000 level)	3		
<b>Total Hours</b>	<b>13</b>	<b>GPA</b>	2.00+ GPA

General Electives: 0

# indicates a "C" or better is required

<p>HIST 1503 World History to 1500 (ACTS=HIST1113)                  HIST 1513 World History since 1500 (ACTS=HIST1123)                  HIST 2003 U.S. History to 1877 (ACTS=HIST2113)                  HIST 2013 U.S. History since 1877 (ACTS=HIST2123)                  HIST 1903 Survey of American History                  POLS 2003 American Government (ACTS=PLSC2003)                  ECON 2003 Principles of Macroeconomics (ACTS=ECON2103)                  ECON 2013 Principles of Microeconomics (ACTS=ECON2203)                  SOC 1003 Introductory Sociology (ACTS=SOCI1013)                  PSY 2003 General Psychology (ACTS=PSYC1103)                  ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)</p>	<p><b>Social Sciences</b>                  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</p> <p><b>NOTE 1 - Consider Accelerated BSEE Electrical Engineering to MENG Electrical Engineering. See Catalog BEFORE Junior Year.</b></p>
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