

NAME: \_\_\_\_\_ T#: \_\_\_\_\_



### Bachelor of Science in Mechanical Engineering - 8-Semester Guaranteed Program

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:** Mechanical engineering is one of the broadest engineering disciplines. Mechanical engineers design, develop, build, and test mechanical and thermal systems. These systems include mechanical devices such as tools, engines, and machines, and thermal devices including steam power plants, heating, ventilation and air-conditioning systems (HVAC), and pumping systems.

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

Prerequisites (if applicable): MATH 1914 (ACTS = MATH 1305)\_\_\_\_ or MATH 1203 (ACTS = MATH 1203)\_\_\_\_

Semester 1 Course Information	Hrs.	Grade	Notes
ENGL 1013 - Comp I (ACTS = ENGL 1013)	3	#	
Fine Arts & Humanities	3		
MATH 2914 - Calculus I (ACTS = MATH 2405)	4		Milestone
CHEM 2124/2120 - General Chemistry I (ACTS = CHEM 1414)	4		Milestone
MCEG 1012 - Intro to Mechanical Engineering	2		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	

Semester 2 Course Information	Hrs.	Grade	Notes
ENGL 1023 - Comp II (ACTS = ENGL 1023)	3	#	
PHYS 2114/2000 - General Physics I (ACTS = PHYS 2034)	4		Milestone
MATH 2924 - Calculus II (ACTS = MATH 2505)	4		Milestone
MCEG 1002 - Engineering Graphics	2		
MCEG 2023 - Engineering Materials	3		
<b>Total hours</b>	<b>16</b>	<b>GPA</b>	

Semester 3 Course Information	Hrs.	Grade	Notes
CHEM 2134/2130 - General Chemistry II (ACTS = CHEM 1424) <b>or</b> PHYS 2124/2010 - General Physics II (ACTS = PHYS 2044)	4		
MATH 2934 - Calculus III (ACTS = MATH 2603)	4		Milestone
MCEG 2013 - Statics	3		Milestone
MCEG 2203 - Computational Methods in Engineering	3		
<b>Total hours</b>	<b>14</b>	<b>GPA</b>	

Semester 4 Course Information	Hrs.	Grade	Notes
Social Sciences	3		
ELEG 2103 - Electrical Circuits I	3		Take in sequence with ELEG 2113
MATH 3243 - Differential Equations I	3		Milestone
MCEG 2033 - Dynamics	3		Milestone
MCEG 3013 - Mechanics of Materials	3		Milestone
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	MCEG ADVISOR ASSIGNED

# indicates a "C" or better is required

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	ry & Government
ART 2123 - Experiencing Art (ACTS = ARTA 1003)	HIST 1903 - Survey of American History
MUS 2003 - Introduction to Music (ACTS = MUSC 1003)	HIST 2003 - U.S. History to 1877 (ACTS = HIST 2113)
TH 2273 - Introduction to Theatre (ACTS = DRAM 1003)	HIST 2043 - Honors U.S. History to 1877
ENGL 2173 - Introduction to Film	HIST 2013 - U.S. History II (ACTS = HIST 2123)
JOUR 2173 - Introduction to Film	POLS 2003 - American Government (ACTS = PLSC 2003)
ENGL 2003 - Intro to World Literature (ACTS = ENGL2113)	<b>Science with Lab</b>
ENGL 2013 - Intro to American Literature (ACTS = ENGL 2653)	BIOL 1014 - Intro to Biological Science (ACTS = BIOL 1004)
ENGL 2023 - Honors World Literature	BIOL/PHSC 1004 - Principles of Environmental Science
PHIL 2003 - Introduction to Philosophy (ACTS = PHIL 1103)	GEOL 1014 - Physical Geology (ACTS = GEOL 1114)
PHIL 2043 - Honors Introduction to Philosophy	PHSC 1013/1021 - Physical Sci/Lab (ACTS = PHSC 1004)

Semester 5 Course Information	Hrs.	Grade	Notes
ELEG 2113 - Electrical Circuits II	3		Take in sequence with ELEG 2103
MCEG 3313 - Thermodynamics I	3		Milestone
MCEG 3413 - Fundamentals of Mechanical Design	3		Milestone
MCEG 3442 - Mechanical Laboratory I	2		
Engineering Elective (3000-4000)	3		
<b>Total hours</b>	<b>14</b>	<b>GPA</b>	

Semester 6 Course Information	Hrs.	Grade	Notes
Fine Arts & Humanities	3		
MATH Elective (department approval required)	3		
MCEG 4403 - Mechanics of Fluids and Hydraulics	3		
MCEG 4423 - Machine Component Design	3		
Engineering Elective (3000-4000)	3		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	<b>APPLY FOR GRADUATION</b>

Semester 7 Course Information	Hrs.	Grade	Notes
U.S. History/Government	3		
MCEG/ELEG 3003 - Modeling and Design	3		Milestone
MCEG/ELEG 4202 - Engineering Design	2		
MCEG 4433 - Thermodynamics II	3		
Technical Elective	3		Departmental approval required
<b>Total hours</b>	<b>14</b>	<b>GPA</b>	

Semester 8 Course Information	Hrs.	Grade	Notes
MCEG 4493 - Mechanical Design Project	3		Milestone
MCEG 4442 - Mechanical Laboratory II	2		
MCEG 4443 - Heat Transfer	3		<b>Graduation Requirements:</b>
ELEG 4303 - Control Systems	3		Students must complete 120 hours and achieve a 2.0 GPA or higher with at least 40 hours over 3000 level. No more than 4 hours can be in PE.
Engineering Lab Elective (3000-4000)	2		
Engineering Elective (4000)	3		
<b>Total Hours</b>	<b>16</b>	<b>GPA</b>	

**General Electives: 0**

Social Sciences	
HIST 1503 - World History to 1500 (ACTS = HIST 1113)	ECON 2013 - Princ of Economics II (ACTS = ECON 2203)
HIST 1513 - World History since 1500 (ACTS = HIST 1123)	SOC 1003 - Introductory Sociology (ACTS = SOCI 1013)
HIST 1543 - Honors World History to 1500	PSY 2003 - General Psychology (ACTS = PSYC 1103)
HIST 2003 - U.S. History to 1877 (ACTS = HIST 2113)	ANTH 1213 - Intro to Anthropology (ACTS = ANTH 1013)
HIST 2013 - U.S. History since 1877 (ACTS = HIST 2123)	ANTH 2003 - Cultural Anthropology (ACTS = ANTH 2013)
HIST 2043 - Honors U.S. History to 1877	GEOG 2013 - Regional Geography (ACTS = GEOG 2103)
HIST 2013 - Survey of American History	AMST 2003 - American Studies
POLS 2003 - American Government (ACTS = PLSC 2003)	<b>Speech Courses</b>
ECON 2003 - Princ of Economics I (ACTS = ECON 2103)	SPH 1003 - Intro to Speech Com (ACTS = SPCH 1003)
ECON 2103 - Honors Principles of Economics I	SPH 2003 - Public Speaking
	SPH 2173 - Business and Professional Speaking