

### 2013-2014 Degree Map-Bachelor of Science in Physics

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/>.

**Possible careers include: Natural Sciences Manager, Physicist, Physics Teacher, Aeronautical & Aerospace Engineer, Aerospace Engineering Technician, Atmospheric and Space Scientist, Cartographer, Hydraulic Engineer, Photogrammetrist**

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

**Sample Schedule**
**Milestones/Notes**

Semester 1	Hrs.	Grade	Semester 1
#ENGL 1013: Comp I (ACTS=ENGL 1013)	3		
Social Sci./Fine Arts/Humanities/Speech	3		
#MATH1914: Pre-Cal (ACTS=MATH1305) <u>or</u> MATH 1203: Plane Trig (ACTS: MATH1203)	3 or 4		Placement determined by MATH ACT. Students with MATH ACT 24+ may be eligible to enroll in MATH 2914.
CHEM2124/2120: Gen. Chem. I (ACTS=CHEM1414) <b>MILESTONE</b>	4		
PHSC1001: Orientation to Physical Science	1		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 2	Hrs.	Grade	Semester 2
#ENGL 1023: Comp II (ACTS= ENGL 1023)	3		
Social Science	3		
MATH2914: Calculus I (ACTS= MATH 2405)	4		Milestone
PHSC1011: Orientation to Physical Science II	1		Milestone
CHEM2134/2130: General Chemistry II (ACTS= CHEM 1424)	4		No substitutions allowed.
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	Milestone

Semester 3	Hrs.	Grade	Semester 3
COMS2803: Programming in C	3		
Social Science	3		
MATH2924: Calculus II (ACTS= MATH2505)	4		Milestone
PHYS 2114/2000: General Physics I (ACTS=PHYS 2034)	4		Milestone
General Elective	3		
<b>Total hours</b>	<b>17</b>	<b>GPA</b>	

Semester 4	Hrs.	Grade	Semester 4
Biological Science	4		
U.S. History & Government	3		
MATH2934: Calculus III (ACTS= MATH 2603)	4		Milestone
PHYS 2124/2010: General Physics II (ACTS=PHYS 2044)	4		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	<b>PHYS 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	U.S. History & Government
ART 2123 Experiencing Art (ACTS=ARTA1003)	HIST 1903 Survey of American History
MUS 2003 Introduction to Music (ACTS=MUSC1003)	HIST 2003 U.S. History I (ACTS=HIST2113)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)	HIST 2043 Honors U.S. History I
ENGL 2173 Introduction to Film	HIST 2013 U.S. History II (ACTS=HIST2123)
JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	<b>Speech Courses</b>
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	SPH 1003 Intro. to Speech Com. (ACTS=SPCH1003)
ENGL 2023 Honors World Literature	SPH 2003 Public Speaking
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	SPH 2173 Business and Professional Speaking
PHIL 2043 Honors Introduction to Philosophy	

**Sample Schedule**
**Milestones/Notes**

Semester 5	Hrs.	Grade	Semester 5
Fine Arts & Humanities	3		
MATH3243: Differential Equations I	3		
ELEG2103: Electric Circuits I	3		
PHYS 3023 Mechanics <u>or</u> PHYS 3213 Modern Physics	3		
PHYS 3133: Electr. & Magnetism <u>or</u> PHYS Elective(3000-4000)	3		<b>Note 1:</b> PHYS3133 offered in alternating Fall semesters.
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 6	Hrs.	Grade	Semester 6
Fine Arts & Humanities	3		
ELEG2111: Electric Circuits Laboratory	1		
ELEG2113: Electric Circuits II	3		
PHYS4013 Quantum Mech <u>or</u> PHYS4113: Adv. Physics Lab	3		
PHYS Elective (3000-4000 level)	3		
*General Elective	2		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	<b>APPLY FOR GRADUATION</b>

Semester 7	Hrs.	Grade	Semester 7
PHYS 3023 Mechanics <u>Or</u> PHYS 3213 Modern Physics	3		
PHYS 3133: Electr. & Magnetism <u>or</u> PHYS Elective (3000-4000)	3		See <b>Note 1</b> in Semester 5
**MATH Elective (3000-4000 level)	3		See excluded math courses below.
*General Elective	3		
*General Elective	3		
<b>Total hours</b>	<b>15</b>	<b>GPA</b>	

Semester 8	Hrs.	Grade	Semester 8
PHYS4013 Quantum Mech <u>or</u> PHYS4113: Adv. Physics Lab	3		<b>Graduation Requirements:</b> 40 hours 3000-4000 level courses No more than 4 PE activity hours Min. hours required:120 2.00+ GPA No more than 12 hours of "D" grades
PHYS 4991-4: Special Problems in Physics and Astronomy	1-4		
*MATH Elective (3000-4000 level)	3		
*General Elective (3000-4000 level)	3-6		
<b>Total Hours</b>	<b>13</b>	<b>GPA</b>	

\*General Electives: 14-17 hours (Choose at least 7 hrs. from PHYS, PHSC, BIOL, ENGR, COMS)

\*\*Math Elective Exclusions: Math 3003, 3033, 4133

# indicates a "C" or better is required

	Social Sciences
HIST 1503 World Civilization (ACTS=HIST1113)	ECON 2013 Principles of Economics II (ACTS=ECON2203)
HIST 1513 World Civilization II (ACTS=HIST1123)	SOC 1003 Introductory Sociology (ACTS=SOCI1013)
HIST 1543 Honors World Civilization I	PSY 2003 General Psychology (ACTS=PSYC1103)
HIST 2003 U.S. History I (ACTS=HIST2113)	ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
HIST 2013 U.S. HISTORY II (ACTS=HIST2123)	ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
HIST 2043 Honors U.S. History I	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	