

2020-2021 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/catalog/>

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

#Prerequisite Courses: ENGL 0303 ___ MATH 0803 ___ MATH 1003 ___ MATH 0903 ___ MATH 0900 ___ MATH 1113 ___ MATH 1110 ___

Sample Schedule

Semester 1	Hrs.	Grade	Milestones/Notes	Semester 1
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#		
Social Sci./Fine Arts/Humanities/Comm	3			
MATH 1914- Pre-Cal (ACTS=MATH1305) or MATH 1203- Plane Trig. (ACTS= MATH1203)	3 or 4	#	Placement determined by MATH ACT. Students with MATH ACT 26 or higher may be eligible to enroll in MATH 2914.	
CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414)	4			
PHSC 1001- Orientation to Physical Science	1			
Total hours	15	GPA		

Semester 2	Hrs.	Grade	Milestones/Notes	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#		
Social Science	3			
MATH 2914- Calculus I (ACTS= MATH 2405)	4		Milestone	
PHSC 1011- Orientation to Physical Science II	1		Milestone	
CHEM 2134/2130- Gen. Chem. II (ACTS=CHEM1424) Milestone	4		No substitutions allowed.	
Total hours	15	GPA	Milestone	

Semester 3	Hrs.	Grade	Milestones/Notes	Semester 3
COMS 2803- Programming in C	3			
Social Science	3			
MATH 2924- Calculus II (ACTS= MATH2505)	4		Milestone	
PHYS 2114/2000- Calculus-Based Physics I (ACTS=PHYS 2034)	4		Milestone	
General Elective	3			
Total hours	17	GPA		

Semester 4	Hrs.	Grade	Milestones/Notes	Semester 4
Biological Science	4			
U.S. History & Government	3			
MATH 2934- Calculus III (ACTS= MATH 2603)	4		Milestone	
PHYS 2124/2010- Calculus-Based Physics II (ACTS=PHYS 2044)	4			
Total hours	15	GPA	PHYS 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=ARTA1003)	HIST 1903 Survey of American History
MUS 2003 Introduction to Music (ACTS=MUSC1003)	HIST 2003 United States History to 1877 (ACTS=HIST2113)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)	HIST 2043 Honors United States History to 1877
ENGL 2173 Introduction to Film	HIST 2013 United States History since 1877 (ACTS=HIST2123)
JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
ENGL 2183 Honors Introduction to Film	Communication Courses
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	COMM 1003 Intro to Speech Comm
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	COMM 2003 Public Speaking
ENGL 2023 Honors World Literature	COMM 2173 Business and Professional Speaking
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	
PHIL 2043 Honors Introduction to Philosophy	
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)	

Sample Schedule

Semester 5	Hrs.	Grade	Milestones/Notes	Semester 5
Fine Arts & Humanities	3			
MATH 3243- Differential Equations I	3			
ELEG 2103- Electric Circuits I	3			
PHYS 3023- Mechanics or PHYS 3213- Modern Physics	3			
PHYS 3133- Electr. & Magnetism or PHYS Elective(3000-4000)	3		Note 1: PHYS3133 offered in alternating Fall semesters.	
Total hours	15	GPA		

Semester 6	Hrs.	Grade	Milestones/Notes	Semester 6
Fine Arts & Humanities	3			
ELEG 2111- Electric Circuits Laboratory	1			
ELEG 2113- Electric Circuits II	3			
PHYS 4013- Quantum Mech or PHYS 4113- Adv. Physics Lab	3			
PHYS Elective (3000-4000 level)	3			
*General Elective	2			
Total hours	15	GPA	APPLY FOR GRADUATION	

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

Semester 8	Hrs.	Grade	Milestones/Notes	Semester 8
PHYS 4013- Quantum Mech or PHYS 4113- Adv. Physics Lab	3			Graduation Requirements: Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120 2.00+ GPA No more than 12 hours of "D" grades
PHYS 4991- Spl Probs. PHYS&Astrmy OR PHYS 4951- UG Rsrch in Phy	1-4			
*MATH Elective (3000-4000 level)	3			
*General Elective (3000-4000 level)	3-6			
Total Hours	13	GPA		

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

**Math Elective Exclusions: Math 3003, 3033, 4113

indicates a "C" or better is required

World History	Social Sciences
HIST 1503 World History to 1500 (ACTS=HIST1113)	ECON 2013 Principles of Economics II (ACTS=ECON2203)
HIST 1513 World History since 1500 (ACTS=HIST1123)	SOC 1003 Introductory Sociology (ACTS=SOCI1013)
HIST 1543 Honors World History to 1500	PSY 2003 General Psychology (ACTS=PSYC1103)
HIST 2003 U.S. History to 1877 (ACTS=HIST2113)	ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013)
HIST 2013 U.S. History since 1877 (ACTS=HIST2123)	ANTH 2003 Cultural Anthropology (ACTS=ANTH2013)
HIST 2043 Honors U.S. History to 1877	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	