

2023-2024 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 1113 ___ MATH 1110 ___ MATH 1203 ___ MATH 1914 ___

Sample Schedule	Milestones/Notes	
Semester 1	Hrs.	Grade
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#
COMS 1013 Programming I	3	Prereq: #C or > in MATH 1113 or higher math
COMS 1011 Programming I Lab	1	Pass/Fail
MATH 2914 Calculus I (ACTS=MATH 2405)	4	#
CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414)	4	#
PHSC 1001- Orientation to Physical Science	1	
Total hours	16	GPA

Sample Schedule	Milestones/Notes	
Semester 2	Hrs.	Grade
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#
PHYS 2114/2000-Calculus Based Physics I (ACTS=PHYS 2034)	4	
MATH 2924- Calculus II (ACTS= MATH 2505)	4	Milestone
PHSC 1011- Orientation to Physical Science II	1	Milestone
CHEM 2134/2130- Gen. Chem. II(ACTS=CHEM1424)	4	Milestone
Total hours	16	GPA

Sample Schedule	Milestones/Notes	
Semester 3	Hrs.	Grade
Biological Science	4	
Social Science	3	
MATH 2934- Calculus III (ACTS= MATH 2603)	4	Milestone
PHYS 2124/2010- Calculus-Based Physics II (ACTS=PHYS 2044)	4	Milestone
Total hours	15	GPA

Sample Schedule	Milestones/Notes	
Semester 4	Hrs.	Grade
ELEG 2103- Electric Circuits I	3	
U.S. History & Government	3	
MATH 3243- Differential Equations I	3	Milestone
PHYS 3213- Modern Physics	3	
COMS 2203 Programming Foundations II	3	
Total hours	15	GPA

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/>

indicates a "C" or better is required

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 to 1877 (ACTS=HIST1123)
TH 2273 Introduction to Theatre (ACTS=DRAM 1003)	HIST 2013 U.S. History since 1877 (ACTS=HIST2123)
ENGL/JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
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	

Sample Schedule	Milestones/Notes	
Semester 5	Hrs.	Grade
Fine Arts & Humanities	3	
ELEG 2113- Electric Circuits II	3	
ELEG 2111- Electric Circuits Laboratory	1	
PHYS 3023- Mechanics or PHYS 4013 Quantum Mechanics	3	
PHYS 3133- Theory of Electricity and Magnetism or PHYS 4023- Computational Physics	3	Note 1: PHYS3133 offered in alternating fall semesters
COMS 2323 Programming in Python	3	
Total hours	16	GPA

Sample Schedule	Milestones/Notes	
Semester 6	Hrs.	Grade
Fine Arts & Humanities	3	
(PHYS 4213- Adv Topic/ Physic/ Astrono or MATH UD) or PHYS 4003-Thermodynam/ Stat Mech	3	
PHYS 3003- Optics or PHYS 4113 Advanced Physics Lab	3	
*General Elective	2	
STAT 3153 Applied Statistics	3	
Total hours	14	GPA

Sample Schedule	Milestones/Notes	
Semester 7	Hrs.	Grade
PHYS 3023- Mechanics or PHYS 4013 Quantum Mechanics	3	
PHYS 3133- Theory of Electricity and Magnetism or PHYS 4023- Computational Physics	3	Note 1: PHYS3133 offered in alternating fall semesters
MATH 4003 Linear Algebra I	3	See excluded math courses below.
Social Science	3	
*General Elective (3000-4000 level)	3	
Total hours	15	GPA

Sample Schedule	Milestones/Notes	
Semester 8	Hrs.	Grade
Social Sci./Fine Arts/Humanities/Comm	3	
(PHYS 4213- Adv Topic/ Physic/ Astrono or MATH UD) or PHYS 4003-Thermodynam/ Stat Mech	3	
PHYS 3003- Optics or PHYS 4113 Advanced Physics Lab	3	
PHYS 4951- UG Research in Physics	1	
*General Elective (3000-4000 level)	3	
Total Hours	13	GPA

*General Electives: 2 hours (Choose at least 7 hrs. from PHYS, PHSC, BIOL, ENGR, COMS) with 6 hours 3000-4000

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

Social Sciences
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)
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

University Honors students should consult Course Catalog for appropriate Fine Arts/Humanities, US History/Government and Social Science options for University Honors Curriculum.