

2013-2014 Degree Map-Bachelor of Science in Nuclear 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: Materials Engineer, Nuclear Engineer, Nuclear Fuels Research Engineer, Nuclear Medicine Technologist, Nuclear Power Reactor Operator, Nuclear Technician, Quality Control Engineer, Radiation Protection Engineer

#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 Science/Fine Arts/Humanities/Speech	3		
MATH2914: Calculus I (ACTS= MATH 2405)	4		C or > required for Gen Ed. Milestone
PHSC1001: Orientation to Physical Science	1		
CHEM2124/2120: Gen. Chem. I (ACTS=CHEM1414) MILESTONE	4		Milestone
Total hours	15	GPA	

Semester 2	Hrs.	Grade	Semester 2
#ENGL 1023: Comp II (ACTS= ENGL 1023)	3		
MCEG 2023: Engineering Materials	3		Milestone
MATH2924: Calculus II (ACTS= MATH2505)	4		Milestone
PHSC1011: Orientation to Physical Science II	1		No substitutions allowed.
CHEM2134/2130: General Chemistry II (ACTS= CHEM 1424)	4		Milestone
Total hours	15	GPA	

Semester 3	Hrs.	Grade	Semester 3
Social Science	3		
Social Science	3		
COMS2803: Programming in C	3		
MATH2934: Calculus III (ACTS= MATH 2603)	4		Milestone
PHYS 2114/2000: General Physics I (ACTS=PHYS 2034)	4		Milestone
Total hours	17	GPA	

Semester 4	Hrs.	Grade	Semester 4
U.S. History & Government	3		
Biological Science	4		
MATH3243: Differential Equations I	3		
PHYS 2124/2010: General Physics II (ACTS=PHYS 2044)	4		Milestone
Total hours	14	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 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)	Speech Courses
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	

Prerequisites (if applicable): MATH 1914 (ACTS=MATH1305) _____ OR MATH 1203 (ACTS=MATH1203) _____

Sample Schedule	Milestones/Notes		
Semester 5	Hrs.	Grade	Semester 5
ELEG2103: Electric Circuits I	3		
MCEG3313: Thermodynamics I	3		
MCEG3503: Basic Nuclear Engineering	3		
PHYS 3213: Modern Physics or PHYS Elective (3000-4000)	3		Note 1: PHYS 3213 & 4113 must be completed. Both courses are offered in alternating years. When not available, choose a PHYS Elective.
PHYS4113: Adv. Physics Lab or PHYS Elective (3000-4000)	3		
See Note 1			
Total hours	15	GPA	

Semester 6	Hrs.	Grade	Semester 6
Fine Arts & Humanities	3		
ELEG 2111 and ELEG 2113: Electric Circuits II and Lab	4		
MCEG 3523 or PHYS 3033: Radiation Health Physics	3		
MCEG4403: Mechanics of Fluids and Hydraulics	3		
Total hours	13	GPA	APPLY FOR GRADUATION

Semester 7	Hrs.	Grade	Semester 7
MCEG4323: Power Plant Systems	3		
PHYS 3143 or ELEG 3103: Electronics I	3		
PHYS 3213: Modern Physics or PHYS Elective (3000-4000)	3		See Note 1 in Semester 5
PHYS4113: Adv. Physics Lab or PHYS Elective (3000-4000)	3		See Note 1 in Semester 5
General Elective (3000-4000 level)	3		
Total hours	15	GPA	

Semester 8	Hrs.	Grade	Semester 8
Fine Arts & Humanities	3		Graduation Requirements: 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
MCEG4443: Heat Transfer	3		
PHYS 4991-4: Special Problems in Physics and Astronomy	1-4		
Engineering Elective	3		
PHYS Elective (3000-4000 level)	3-6		
Total Hours	16	GPA	

General Electives: 3 hours 1000-4000 level

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	