

2017-2018 Degree Map-Bachelor of Science in Engineering 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: Architectural and Engineering Manager, Validation Engineer, Photonics Engineer, Nanosystems Engineer, Physicist, Engineering Teacher, Solar Energy Systems Designer

#Prerequisite Courses: ENGL 0303 _____ ENGL 0404 _____ READ 0103 _____ MATH 0803 _____ MATH 1003 _____ MATH 0903 _____ MATH 0900 _____ MATH 1110 _____ MATH 1203 _____ MATH 1914 _____

Sample Schedule
Milestones/Notes

Semester 1	Hrs.	Grade	Semester 1
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#	
PHSC 1001- Orientation to Physical Science	1		
MATH 2914- Calculus I (ACTS= MATH 2405)	4	#	#C or > required for Gen Ed. Milestone
COMS 2803- Programming in C	3		
CHEM 2124/2120- Gen. Chem. I (ACTS=CHEM1414)	4		Milestone
Total hours	15	GPA	

Sample Schedule
Milestones/Notes

Semester 5	Hrs.	Grade	Semester 5
Social Sci/Fine Arts/Humanities	3		
ELEG 2103- Electric Circuits I	3		
PHYS 3023- Mechanics OR PHYS 3213- Modern Physics	3		
PHYS 4113- Adv. Physics Lab OR *MATH Elec. (3000-4000)	3		Complete both PHYS 4113 & MATH. PHYS 4113 offered in alternating years.
PHYS 4213- Adv Topics OR MCEG 3013- Mech of Materials	3		
Total hours	15	GPA	

Semester 2	Hrs.	Grade	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
PHSC 1011- Orientation to Physical Science II	1		No substitutions allowed.
MATH 2924- Calculus II (ACTS= MATH2505)	4		Milestone
MCEG 2023- Engineering Materials	3		
CHEM 2134/2130- General Chemistry II (ACTS= CHEM 1424)	4		
Total hours	15	GPA	

Semester 6	Hrs.	Grade	Semester 6
Social Sci/Fine Arts/Humanities	3		
ELEG 2113/2111- Electric Circuits II and Lab	4		
PHYS 4003- Thermo/Stats Mech or PHYS 3003- Optics	3		
PHYS 4013 Quantum Mech OR PHYS 3133- Electr. & Magnetism	3		
Total hours	13	GPA	APPLY FOR GRADUATION

Semester 3	Hrs.	Grade	Semester 3
Social Sci/Fine Arts/Humanities/Comm	3		
PHYS 2114/2000- General Physics I (ACTS=PHYS 2034)	4		Milestone
MATH 2934- Calculus III (ACTS= MATH 2603)	4		
Biological Science	4		
Total hours	15	GPA	

Semester 7	Hrs.	Grade	Semester 7
U.S. History & Government	3		
PHYS 3023- Mechanics OR PHYS 3213- Modern Physics	3		
PHYS 4113- Adv. Physics Lab OR *MATH Elec.(3000-4000)	3		Complete both PHYS 4113 & MATH. PHYS 4113 offered in alternating years.
PHYS 4213- Adv TopicS OR MCEG 3013- Mech of Materials	3		
PHYS 4991- Splc Probs. PHYS&Astrmy OR PHYS 4951- UG Rsrch in Phy	1		
ELEG/MCEG Elective (3000-4000 level)	3		
Total hours	16	GPA	

Semester 4	Hrs.	Grade	Semester 4
Social Sci/Fine Arts/Humanities	3		
Social Sci/Fine Arts/Humanities	3		
PHYS 2124/2010- General Physics II (ACTS=PHYS 2044)	4		Milestone
MATH 3243- Differential Equations I	3		
General Elective	2		
Total hours	15	GPA	PHYS ADVISOR ASSIGNED

Semester 8	Hrs.	Grade	Semester 8
ELEG/MCEG 4991 OR ELEG/MCEG 4951	1		
MCEG 4403- Mechanics of Fluids and Hydraulics	3		
MCEG 4443- Heat Transfer	3		Graduation Requirements:
PHYS 4013- Quantum Mech OR PHYS 3133- Electr. & Magnetism	3		Min. hours 3000-4000 level courses: 40
PHYS 4003- Thermo/Stats Mech OR PHYS 3003- Optics	3		No more than 4 PE activity hours
ELEG/MCEG Elective (3000-4000 level)	3		Min. hours required:120
Total Hours	16	GPA	2.00+ 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 at <http://acts.adhe.edu/>

General Electives: 2 hours (1000-4000 level) *MATH Electives exclude MATH 3003, 3033, 4113

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 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 from 1877 (ACTS=HIST2123)
JOUR 2173 Introduction to Film	POLS 2003 American Government (ACTS=PLSC2003)
ENGL 2003 Introduction to World Literature (ACTS=ENGL2113)	Communication Courses
ENGL 2013 Intro. to American Literature (ACTS=ENGL2653)	COMM 1003 Intro to Speech Comm
ENGL 2023 Honors World Literature	COMM 2003 Public Speaking
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	COMM 2173 Business and Professional Speaking
PHIL 2043 Honors Introduction to Philosophy	

	Social Sciences
HIST 1503 World Civilization to 1500 (ACTS=HIST1113)	ECON 2013 Principles of Economics II (ACTS=ECON2203)
HIST 1513 World Civilization since 1500 (ACTS=HIST1123)	SOC 1003 Introductory Sociology (ACTS=SOCI1013)
HIST 1543 Honors World Civilization 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	