

2023-2024 Degree Map-Bachelor of Science in Chemistry: Biochemistry Option

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: Medical, Dental, Biophysicist, Chemical Engineer, Chemical Technician, Conservation Scientist, Environmental Engineer, Food Technologist, Forensic Science Technician, Industrial Air Pollution Analyst, Industrial Waste Inspector, Materials Scientist, Microbiologist, Pharmacist, Soil Scientist, Toxicologist, Water Pollution Control Inspector

#Prerequisite Courses: ENGL 0303 ___ MATH 0803 ___ MATH 1003 ___ MATH 0903 ___ MATH 1113 ___ MATH 1110 ___ MATH 1203 ___ MATH 1914 ___ COMS 1003 ___

Sample Schedule
Milestones/Notes

Semester 1	Hrs.	Grade	Semester 1
ENGL 1013- Comp I (ACTS=ENGL 1013)	3	#	
Social Science	3		
MATH 2914- Calculus I (ACTS= MATH 2405)	4	#	# C or > required for Gen Ed. Milestone
PHSC 1001- Orientation to Physical Science	1		
CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414)	4	#	Milestone
Total hours	15	GPA	

Semester 2	Hrs.	Grade	Semester 2
ENGL 1023- Comp II (ACTS= ENGL 1023)	3	#	
BIOL 1114- Principles of Biology (ACTS= BIOL 1014)	4		
MATH 2924- Calculus II (ACTS= MATH 2505)	4		
PHSC 1011- Orientation to Physical Science II (MANDATORY)	1		
CHEM 2134/2130- General Chemistry II (ACTS= CHEM 1424)	4	#	Milestone
Total hours	16	GPA	

Semester 3	Hrs.	Grade	Semester 3
Social Science	3		
PHYS 2014/2000- Algebra-Based Physics I	4		or PHYS 2114/2000- Calculus-Based Phys I
COMS 2003*- Microcomputer Applications OR COMS 2803-Programming in C	3		*(COMS 2003 prereq.= COMS 1003)
CHEM 3254- Fund. of Organic Chemistry	4	#	Milestone
Total hours	14	GPA	

Semester 4	Hrs.	Grade	Semester 4
U.S. History & Government	3		
PHYS 2024/2010- Algebra-Based Physics II	4		or PHYS 2114/2000- Calculus-Based Phys II
CHEM 3245- Quantitative Analysis	5	#	
CHEM 3264- Mechanistic Organic Chemistry	4	#	
Total hours	16	GPA	CHEM 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 by searching keyword "ACTS" at <https://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 to 1877 (ACTS=HIST2113)
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)	Communication Courses
PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103)	COMM 1003 Intro to Speech Comm
PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003)	COMM 2003 Public Speaking
1013 from SPAN, FR, GER, JPN, CHIN, or LAT	COMM 2173 Business and Professional Speaking
1023 from SPAN, FR, GER, JPN, CHIN, or LAT	

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

Sample Schedule
Milestones/Notes

Semester 5	Hrs.	Grade	Semester 5
Fine Arts & Humanities	3		
BIOL 2124- Principles of Zoology (ACTS= BIOL 1054)	4		
CHEM 3301- Chemistry Seminar	1	#	
CHEM 3344- Principles of Biochemistry	4	#	
General Elective	4		Recommend Statistics or ENGL2053
Total hours	15	GPA	

Semester 6	Hrs.	Grade	Semester 6
BIOL 2014- Human Anatomy (ACTS=BIOL 2404)	4		
BIOL 3034- Genetics	4		
CHEM 3363- Metabolic Biochemistry	3	#	
CHEM 3423- Descriptive Inorganic Chemistry	3	#	
Total hours	15	GPA	APPLY FOR GRADUATION

Semester 7	Hrs.	Grade	Semester 7
BIOL 3074- Human Physiology or BIOL 3174- Physiological Ecology	4		
CHEM 3324- Physical Chemistry I	4	#	Pre-req: PHYS 2114
CHEM 4414- Instrumental Analysis	4	#	
CHEM Elective (3000-4000 level)	3		Recommend Statistics or ENGL2053
CHEM 4991- Spcl Probs.Chem. OR CHEM 4951- UG Rsrch in Chem.	1		
Total hours	16	GPA	

Semester 8	Hrs.	Grade	Semester 8
Fine Arts & Humanities	3		
Social Sci/Fine Arts/Humanities/Comm	3		Graduation Requirements:
BIOL 4033- Cell Biology	3		Min. hours 3000-4000 level courses: 40
CHEM 4401- Chemistry Seminar	1	#	No more than 4 PE activity hours
CHEM 4991- Spcl Probs.Chem. OR CHEM 4951- UG Rsrch in Chem.	1		Min. hours required:120
General Elective	2		No more than 12 hours of D's.
Total Hours	13	GPA	

General Electives: 6 hours 1000-4000 level (Statistics and ENGL 2053 recommended)

indicates a "C" or better is required

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