Chemistry B.S. with Biochemistry Option

Chemistry B.S. with Biochemistry Option Eight-Semester Degree Program

Students wishing to follow the eight-semester degree plan should see the Eight-Semester Degree Policy (http://catalog.uark.edu/undergraduatecatalog/academicregulations/eightsemesterdegreecompletionpolicy/) in the Academic Regulations chapter for university requirements of the program. Core requirement hours may vary by individual, based on placement and previous credit granted. Once all core requirements are met, students may substitute a three-hour (or more) general elective in place of a core area.

This program meets the minimum requirements for certification by the American Chemical Society if CHEM 3813 (or CHEM 4813H/CHEM 4843H) is included.

First Year	Fall	Spring	Units
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3		
Select one of the following:	4		
MATH 1213 Plane Trigonometry (ACTS Equivalency = MATH 1203)			
MATH 1284C Precalculus Mathematics (ACTS Equivalency = MATH 1305)			
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405)[1]			
Select one of the following:	4		
CHEM 1203 Chemistry for Majors I & CHEM 1201L Chemistry for Majors I Laboratory			
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) & CHEM 1101L University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)			
University/State Core Fine Arts or Humanities requirement	3		
University/State Core U.S. History requirement if taking MATH 1213	0-3		
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)		3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405)[1] or MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4	
Select one of the following:		4	
CHEM 1223 Chemistry for Majors II & CHEM 1221L Chemistry for Majors II Laboratory			
CHEM 1123 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) & CHEM 1121L University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)			
University/State Core Humanities or Fine Arts requirement (as needed)		3	
University/State Core Social Science requirement		3	
Year Total:	14	17	

Second Year	Fall	Spring	Units
Select one of the following as needed:	3-4		
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505) (if not already taken)[1]			
University/state core U.S. history requirement (as needed)			
Select one of the following:	4		
PHYS 2013 College Physics I (ACTS Equivalency = PHYS 2014 Lecture) & PHYS 2011L College Physics I Laboratory (ACTS Equivalency = PHYS 2014 Lab)[1]			
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)[1,3]			
CHEM 3703 Organic Chemistry I Lecture for Chemistry Majors & CHEM 3702L Organic Chemistry I Lab for Chemistry Majors[1,2]	5		
University/State Core Social Science requirement	3		
Select one of the following:		4	
PHYS 2033 College Physics II (ACTS Equivalency = PHYS 2024 Lecture) & PHYS 2031L College Physics II Laboratory (ACTS Equivalency = PHYS 2024 Lab)[1]			
PHYS 2074 University Physics II (ACTS Equivalency = PHYS 2044 Lecture)[1]			
CHEM 3713 Organic Chemistry II Lecture for Chemistry Majors & CHEM 3712L Organic Chemistry II Lab for Chemistry Majors[1,2]		5	
BIOL 1543 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 1541L Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)		4	
CHEM 2263 Analytical Chemistry Lecture[1,2]		3	
Year Total:	15	16	

Third Year	Fall	Spring	Units
CHEM 3453 Elements of Physical Chemistry & CHEM 3451L Elements of Physical Chemistry Laboratory[1,2]	4		
CHEM 2261L Analytical Chemistry Laboratory[1]	1		
BIOL 2533 Cell Biology & BIOL 2531L Cell Biology Laboratory	4		
University/State Core Social Science requirements	3		

General Elective	3	
Select one of the following:		3-4
CHEM 4213 Instrumental Analysis & CHEM 4211L Instrumental Analysis Laboratory[1,2]		
CHEM 4123 Advanced Inorganic Chemistry I[1,2]		
BIOL 2013 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) & BIOL 2011L General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)		4
3000+ General Elective (if CHEM 4123 is taken), else General Elective		3
General Electives		6
Year Total:	15	16

Fourth Year		**Units**
	Fall	**Spring**
CHEM 4813H Honors Biochemistry I[1,2]	3	
BIOL 2323 General Genetics & BIOL 2321L General Genetics Laboratory[1,2] or BIOL 4233 Genomics and Bioinformatics	3	
3000+ General Elective (if BIOL 2323 is taken), else General Elective	3	
General Electives	6	
CHEM 4843H Honors Biochemistry II[1,2]		3
CHEM 4853 Biochemical Techniques[1,2]		3
General Electives as needed to complete 120-hour requirement		6
Year Total:	15	12

Total Units in Sequence:	**120**

1 Meets 40-hour advanced credit hour requirement. See College Academic Regulations on page 131 of this chapter.

2 Meets 24-hour rule (24 hours of 3000-4000 level courses in Fulbright College), in addition to meeting the 40-hour rule. See College Academic Regulations on page 131 of this chapter.

3 PHYS 2054 Calculus Based University Physics (pre- or co-requisite MATH 2554) and PHYS 2074 (pre- or co-requisite MATH 2564), is a better choice for students interested in graduate school.