

Chemistry with Biochemistry option and Major Requirements (Bachelor of Science) – Catalog Year 2009

Hrs	Course Requirements	Hrs	Course Requirements	Hrs	Course Requirements
6	Freshmen Composition: <input type="checkbox"/> ENGL 1013 and <input type="checkbox"/> ENGL 1023	3	U.S. History/American Government: <input type="checkbox"/> HIST 2003 or <input type="checkbox"/> HIST 2013 or <input type="checkbox"/> PLSC 2003	9	Fine Arts/World Literature/Philosophy: <i>To be selected from at least two departments</i> Fine Arts: <input type="checkbox"/> ARCH 1003 or LARC 1003 <input type="checkbox"/> ARHS 1003 or ARTS 1003 <input type="checkbox"/> COMM 1003 <input type="checkbox"/> DANC 1003 <input type="checkbox"/> DRAM 1003 <input type="checkbox"/> HUMN 1003 <input type="checkbox"/> MLIT 1003 World Literature: <input type="checkbox"/> WLIT 1113 <input type="checkbox"/> WLIT 1123 (<i>WLIT 1113</i>), a foreign language literature course, any other WLIT course. Philosophy: <input type="checkbox"/> PHIL 2003 <input type="checkbox"/> PHIL 2103 <input type="checkbox"/> PHIL 2203
0-3	Advanced Composition: <input type="checkbox"/> ENGL 2003 or <input type="checkbox"/> ENGL 2013 <i>Exemption may be granted by:</i> 1) grade of at least "B" in ENGL 1013 and "A" in ENGL 1023 taken at the U of A, or 2) passing exemption exam	3	Social Science: <input type="checkbox"/> ANTH 1023 <input type="checkbox"/> ECON 2013 (<i>Math 1203</i>) or ECON 2143 <input type="checkbox"/> GEOG 2003 <input type="checkbox"/> PSYC 2003 <input type="checkbox"/> SOCI 2013 or SOCI 2033		
0-9	Foreign Language ¹ : (see advisor for placement) <input type="checkbox"/> Completion of the Intermediate I level (2003) in a single language.	18	Science and Mathematics: To be determined by the department of major and to be selected from at least two departments other than the department of the major.		
6	Western or World Civilization: <input type="checkbox"/> HIST 1003 or HIST 1113 <input type="checkbox"/> HIST 1013 or HIST 1123				

Course prerequisites in parentheses

****See Catalog of Studies and/or advisor for prerequisite information.**

Major Requirements for Chemistry with Biochemistry option:

❖ Cognate Science and Mathematics Requirements:

- MATH 2554 Calculus I (*MATH 1203 & MATH 1213; or MATH 1285*) and MATH 2564 Calculus II (*MATH 2554*)
-AND-
- PHYS 2013/2011L College Physics I (*MATH 1203 & MATH 1213*) and PHYS 2033/2031L College Physics II (*PHYS 2013*)
-OR-
- PHYS 2054/2050L University Physics I (*Pre or Co-req: MATH 2554*) and PHYS 2074/2070L University Physics II (*PHYS 2054; Pre or Co-req: MATH 2564*)

And 15 hours from the Biological Sciences to include:

- BIOL 1543/1541L Principles of Biology BIOL 2533/2531L Cell Biology (*BIOL 1543/1541L; Pre or Co: CHEM 1123/1121L or CHEM 1223/1221L*)
- BIOL 2013/2011L General Microbiology (*BIOL 1543/1541L and 1 sem. of general chemistry*)
- BIOL 4233 Microbial Genetics (*BIOL 2013/2011, CHEM 3603/3601L; CHEM 3613/3611L*)
-OR-
- BIOL 2323 General Genetics (*BIOL 1543/1541L, CHEM 1123/1121L, and MATH 1203 or STAT 2023 or equiv.*)

❖ A minimum of 39 hours in Chemistry including:

- CHEM 1213/1211L Chemistry for Majors I -AND- CHEM 1223/1221L Chemistry for Majors II (*CHEM 1213/1211L or CHEM 1103/1101L*)
OR
- CHEM 1103/1101L University Chemistry I (*MATH 1203*) -AND- CHEM 1123/1121L University Chemistry II (*CHEM 1103 & MATH 1203*)
- CHEM 2262 Analytical Chemistry Lecture (*CHEM 1123/1121L or CHEM 1074/1071L, MATH 1203*)
- CHEM 2272 Analytical Chemistry Laboratory (*CHEM 1123/1121L or CHEM 1074/1071L; MATH 1203; Pre-or Co: CHEM 2262*)
- CHEM 3504 Physical Chemistry (*CHEM 1123/1121L, PHYS 2074; Pre or Co: MATH 2564*) AND
- CHEM 3514/3512L Physical Chemistry II (*CHEM 3504*) OR CHEM 3453/3451L Elements of Physical Chemistry (*CHEM 2262, 2272, PHYS 2033/2031L, MATH 2554 or 2043*)
- CHEM 3703/3702L Organic Chemistry I for Majors (*CHEM 1123/1121L*) AND CHEM 3713/3712L Organic Chemistry II for Majors (*CHEM 1123/1121L*)
- CHEM 4853 Biochemical Techniques (*Pre or Co: CHEM 5813 or 3813*) or completion of a senior thesis based on independent research wherein at least 1 credit hour is earned CHEM 500V (*chemistry research*) and/or CHEM 498V (*senior thesis*) during each of 3 different semesters
- CHEM 5813 Biochemistry I (*CHEM 3613/3611L or CHEM 3713/3712L & CHEM 3514 or CHEM 3543/3451L*) AND CHEM 5843 Biochemistry II (*CHEM 5813*)
OR
- CHEM 3813 Introduction to Biochemistry (*CHEM 3613/3611L or CHEM 3713/3712L or CHEM 2613/2611L*) AND
- CHEM 4723 Exp. Methods in Organic and Inorganic Chem. (*CHEM 3504, CHEM 3514 and CHEM 3613/3611L or CHEM 3713/3712L*)
- CHEM 4213/4211L Instrumental Analysis (*CHEM 2262/2272; 3613/3611L or 3713/3712L; 3514 or 3453*) OR CHEM 4123 Advanced Inorganic Chemistry I (*CHEM 3514*)

¹Prerequisite determined by number of high school language units completed and placement score. Fulbright College students receive no credit for 1003 unless they have satisfied the College entrance requirement (2 years of a high school foreign language with another foreign language).

❖ For more information on Chemistry, contact the Department of Chemistry/Biochemistry: CHEM 119 (479)-575-4601 chemistry.uark.edu

Electives		

Progress Check (Graduation Credit Hours Only) [†]												
Sem	Hrs	Sem	Hrs	Rule	Cum Hrs	Cum Hrs	Cum Hrs	Cum Hrs	Cum Hrs	Cum Hrs		
Sem 1		Sem 9		8 hr								
Sem 2		Sem 10		24 hr								
Sem 3		Sem 11		(24 cont)								
Sem 4		Sem 12		40 hr								
Sem 5		Sem 13		(40 cont)								
Sem 6		Sem 14		(40 cont)								
Sem 7		Sem 15		68 hr								
Sem 8		Sem 16		124 minimum hrs required for graduation								

This form is **NOT** a substitute for the Catalog of Studies. Students should verify this information with their advisor, their degree audit, and the Catalog of Studies.

[†] See Graduation Checksheet at <http://cac.uark.edu/degreeplanning/checksheets.php> for more information on degree requirements.