

## Chemistry with Biophysical 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 areas</i> <b>Fine Arts:</b> <input type="checkbox"/> ARCH 1003 or <input type="checkbox"/> LARC 1003 <input type="checkbox"/> ARHS 1003 or <input type="checkbox"/> 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 <b>World Literature:</b> <input type="checkbox"/> WLIT 1113 <input type="checkbox"/> WLIT 1123 ( <i>WLIT 1113</i> ), a foreign language literature course, any other WLIT course. <b>Philosophy:</b> <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 Advanced Comp exemption exam	3	Social Science: <input type="checkbox"/> ANTH 1023 <input type="checkbox"/> ECON 2013 ( <i>Math 1203</i> ) or <input type="checkbox"/> ECON 2143 <input type="checkbox"/> GEOG 2003 <input type="checkbox"/> PSYC 2003 <input type="checkbox"/> SOCI 2013 or <input type="checkbox"/> SOCI 2033		
0-9	Foreign Language: (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 Biophysical option:

❖ Cognate Science and Mathematics Requirements:

- MATH 2554 Calculus I (*MATH 1203 & MATH 1213 or MATH 1285*) and  MATH 2564 Calculus II (*MATH 2554*)
- PHYS 2054/2050L University Physics I (*Pre or Co: MATH 2554*) and  PHYS 2074/2070L University Physics II (*PHYS 2054; Pre or Co: MATH 2564*)

And 11 hours from the Biological Sciences to include:

- BIOL 1543/1541L Principles of Biology and  BIOL 2533/2531L Cell Biology (*BIOL 1543/1541L, Pre or Co-req: CHEM 1123/1121L or CHEM 1223/1221L*)
- And one additional BIOL lecture course numbered above 3000

❖ A minimum of 43 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 Chem Lecture (*CHEM 1123/1121L or CHEM 1074/1071L, MATH 1203*) &  CHEM 2272 Analytical Chem Lab (*same as 2262; & Pre- or Co-req 2262*)
- CHEM 3504 Physical Chemistry (*CHEM 1123/1121L, PHYS 2074, Pre or Co: MATH 2564*) &  CHEM 3514/3512L Physical Chemistry II (*CHEM 3504*)
- CHEM 3603/3601L Organic Chemistry I (*CHEM 1123/1121L*) &  CHEM 3613/3611L Organic Chemistry II (*CHEM 1123/1121L, CHEM 3603/3601L*)  
OR
- CHEM 3703/3702L Organic Chemistry I for Majors (*CHEM 1123/1121L*) &  CHEM 3713/3712L Organic Chemistry II for Majors (*CHEM 1123/1121L*)
- CHEM 4213/4211L Instrumental Analysis (*CHEM 2262, CHEM 2272, CHEM 3613/3611L or CHEM 3713/3712L; CHEM 3514 or CHEM 3453*)
- CHEM 4853 Biochemical Techniques (*Pre or Co-req: CHEM 5813 or CHEM 3813*) or completion of a senior thesis based on independent research wherein at least 1 credit hour is earned in CHEM 500V (*chemistry research*) and/or CHEM 4981 (*senior thesis*) during each of 3 different semesters

❖ And 6 hours from:

- CHEM 5813 Biochemistry I (*CHEM 3713/3712L or CHEM 3613/3611L and CHEM 3514 or CHEM 3453/3451L*) and  CHEM 5843 Biochemistry II (*CHEM 5813*)  
OR
- CHEM 3813 Intro to Biochem (*CHEM 3613/3611L or CHEM 3713/3712L or CHEM 2613/2611L*) and  CHEM 4723 Exp. Methods in Organic/Inorganic Chem. (*CHEM 3613/3611L [or CHEM 3713], CHEM 3504, CHEM 3514*)

<sup>†</sup>Prerequisite 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).

Electives		

Progress Check (Graduation Credit Hours Only) <sup>†</sup>												
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								

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

<sup>\*\*\*</sup>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. <sup>\*\*\*</sup>

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