

## Chemistry/Biochemistry Core and Major Requirements (Bachelor of Arts) – 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	Philosophy: <input type="checkbox"/> PHIL 2003 or <input type="checkbox"/> PHIL 2103	6	Western or World Civilization: <input type="checkbox"/> HIST 1003 or HIST 1113 <input type="checkbox"/> HIST 1013 or HIST 1123
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	3-4	Mathematics: <input type="checkbox"/> MATH 2043 ( <i>Math 1203 or equiv.</i> ) or <input type="checkbox"/> MATH 2053 ( <i>Math 1202 or equiv.</i> ) or <input type="checkbox"/> MATH 2183 ( <i>Math 1202 or equiv.</i> ) or <input type="checkbox"/> MATH 2554 ( <i>Math 1203 &amp; 1213 or Math 1285 or equiv.</i> )	12	Natural Sciences: At least 4 hours must be chosen from biological and 4 hours from physical.  Biological Sciences <input type="checkbox"/> ANTH 1013/1011L <input type="checkbox"/> BIOL 1543/1541 L <sup>^</sup> <input type="checkbox"/> BIOL 1613/1611L** <input type="checkbox"/> BIOL 2013/2011L** <input type="checkbox"/> BIOL 1603/1601L**  Physical Sciences <input type="checkbox"/> ASTR 2003/2001L <input type="checkbox"/> CHEM 1053/1051L <input type="checkbox"/> CHEM 1103/1101L** <input type="checkbox"/> CHEM 1123/1121L** <input type="checkbox"/> GEOL 1113/1111L <input type="checkbox"/> GEOL 1133/1131L <input type="checkbox"/> PHYS 1023/1021L <input type="checkbox"/> PHYS 2013/2011L*** <input type="checkbox"/> PHYS 2033/2031L*** <input type="checkbox"/> PHYS 2054/2050*** <input type="checkbox"/> PHYS 2074/2070***
6	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	6	Social Science: <input type="checkbox"/> ECON 2013 ( <i>Math 1203</i> ) or ECON 2143 <input type="checkbox"/> SOCI 2013 or SOCI 2033 <input type="checkbox"/> ANTH 1023 <input type="checkbox"/> GEOG 2003 <input type="checkbox"/> PLSC 2013 <input type="checkbox"/> PSYC 2003		
3	Communication: <input type="checkbox"/> COMM 1313	3	U.S. History/American Government: <input type="checkbox"/> HIST 2003 or <input type="checkbox"/> HIST 2013 or <input type="checkbox"/> PLSC 2003		
6	World Literature: <input type="checkbox"/> WLIT 1113 and <input type="checkbox"/> WLIT 1123 ( <i>WLIT 1113</i> ), or <input type="checkbox"/> FLAN language lit course, any other WLIT course, CLST 1003, or CLST 1013	0-12	Foreign Language <sup>1</sup> : See advisor for placement <input type="checkbox"/> Completion of the Intermediate II level (2013) in a single language.		

*Course prerequisites in parentheses*

<sup>^</sup>Required for the major

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

### Major Requirements:

- ❖ Completion of the one of the following Physics sequences:  
 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 (*MATH 2554*) AND  PHYS 2074/2070L University Physics II (*PHYS 2054*)
- ❖ A minimum of 32 hours of chemistry including:  
 CHEM 1213/1211L Chemistry for Majors II/ Lab AND  CHEM 1223/1221L Chemistry for Majors III/ Lab (*CHEM 1213/1211L* or *CHEM 1103/1101L*) OR  
 CHEM 1103/1101L University Chemistry II/ Lab AND  CHEM 1123/1121L University Chemistry III/ Lab (*CHEM 1103*)  
And then:  
 CHEM 2262 Analytical Chemistry Lecture (*CHEM 1123/1121L* or *CHEM 1074/1071L* and *MATH 1203*) AND  
 CHEM 2272 Analytical Chemistry Laboratory (*CHEM 1123/1121L* or *CHEM 1074/1071L* and *MATH 1203*)
- ❖ An additional 12-18 hours to include:  
 CHEM 3703/3702L Organic Chemistry II/ Lab for Majors (*CHEM 1123/1121L*) AND  CHEM 3713/3712L Organic Chemistry III/ Lab for Majors (*CHEM 1123/1121L*) OR  
 CHEM 3603/3601L Organic Chemistry II/ Lab (*CHEM 1123/1121L*) AND  CHEM 3613/3611L Organic Chemistry III/ Lab (*CHEM 1123/1121L* & *CHEM 3603/3601L*)  
And either:  
 CHEM 3453/3451L Elements of Physical Chemistry/ Lab (*CHEM 2262/2272 & PHYS 2033/2031L & MATH 2043* or *MATH 2554*) - *Primarily for non- & BA majors*  
Or the combination of  
 CHEM 3504 Physical Chemistry (*Pre/Co: MATH 2564; pre: CHEM 1123/1121L & PHYS 2074*) AND  CHEM 3514/3512L Physical Chemistry III/ Lab (*CHEM 3504*)
- ❖ Additional Chemistry courses to include:  
 CHEM 4853 Biochemical Techniques (*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 498V (Senior Thesis++) during each of 3 different semesters.  
And either:  
 CHEM 5813 Biochem I (*CHEM 3713/3712L* or *CHEM 3613/3611L* & *CHEM 3514* or *CHEM 3453/3451L*) and CHEM 5843 Biochem II (*CHEM 5813*) OR  
 CHEM 3813 Intro to Biochemistry (*CHEM 3613/3611L* or *CHEM 3713/3712L* or *CHEM 2613/2611L*) AND One of the following:  
 CHEM 4213/4211L Instrumental Analysis (*CHEM 2262 & CHEM 2272 & CHEM 3613/3611L* or *CHEM 3713/3712L & CHEM 3514* or *CHEM 3453*) or  
 CHEM 4123 Advanced Inorganic Chem (*CHEM 3514*) or  
 CHEM 4723 Experimental Methods in Organic & Inorganic Chemistry (Co-reqs: Drill & Lab component; Pre-reqs: CHEM 3613/3611L or CHEM 3713/3712L & CHEM 3504 & CHEM 3514)
- ❖ An additional 11 hours in Biological Sciences to include:  
 BIOL 1543/1541L  4 hrs BIOL elective  3 hrs Upper Level BIOL course

++Taken during each of three (3) different semesters.

<sup>1</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		

- ❖ For more information, contact the Department of Chemistry/Biochemistry: CHEM 119 / 479-575-4601

- Chemistry 113 ▪ 479-575-4648
- <http://chemistry.uark.edu/>

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								

*»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>See Graduation Checklist at <http://fcac.uark.edu/degreeplanning/checksheets.php> for more information on degree requirements