

**Bachelor of Science in Chemistry
Materials Science Concentration
Freshman Curriculum Planning Guide and Four-Year Plan
Fayetteville State University
(2026-2027)**

University College Core Curriculum (39 Credits)	Course	Cr.	Term	Grade
Transitional Studies – University Studies (2 Credits)¹ <i>Select one option from (UNIV 101/102) or UNIV 110 or UNIV 111 or UNIV 112</i>				
Transitional Studies – Life Skills (2 Credits) <i>Select two credits from the following: ENTR 100 or FINC 100 or GEOG 110 or HEED 112 or HEED 113 or PEDU 101 or PEDU 107 or PEDU 112 or PEDU 120 or PEDU 122 or PEDU 130 or PEDU 132 or PEDU 140</i>				
Communication Skills – Written Communication (3 Credits) – ENGL 110	ENGL 110	3		
Information Literacy (3 Credits) – ENGL 120	ENGL 120	3		
Communication Skills – Oral Communication (3 Credits) <i>Select one from the following: BADM 215 or SPEE 200</i>		3		
Reasoning Skills – Critical Thinking (3 Credits)² <i>Select one from the following: PHIL 110 or PHIL 220</i>		3		
Reasoning Skills – Quantitative Reasoning (3 Credits)³ <i>MATH 131</i>	MATH 131	3		
Scientific Literacy – Natural Sciences (8 Credits)⁴ <i>CHEM 141 and CHEM 141L and CHEM 161 and CHEM 161L</i>	CHEM 141	3		
	CHEM 141L	1		
	CHEM 161	3		
	CHEM 161L	1		
Scientific Literacy – Social Sciences (3 Credits) <i>CRJC 210 or ECON 211 or ECON 212 or ENEC 270 or GEOG 210 or HIST 212 or HIST 271 or POLI 200 or POLI 210 or POLI 220 or PSYC 210 or SOCI 210</i>		3		
Humanities and Creative Arts (3 Credits) <i>Select one from the following: ART 210 or COMM 220 or ENGL 220 or ENGL 223 or ENGL 240 or ENGL 250 or ENGL 253 or HIST 210 or HUMN 211 or HUMN 212 or HUMN 213 or HUMN 215 or MUSI 210 or MUSI 225 or MUSI 260 or PHIL 210 or RELI 215 or THEA 203</i>		3		
Global Literacy (3 Credits)⁵ <i>Select one from the following: ANTH 210 or ART 150 or ART 215 or BADM 210 or CHIN 110 or CHIN 120 or ENGL 211 or ENGL 212 or FREN 110 or FREN 120 or GEOG 220 or HIST 110 or HIST 120 or HIST 270 or PHIL 211 or POLI 230 or SOCI 150 or SPAN 110 or SPAN 112 or SPAN 120 or SPAN 122 or SPAN 211 or THEA 242 or YORU 110 or YORU 120</i>		3		
Ethics and Civic Engagement² (3 Credits) <i>Select three credits from the following: BADM 220 or CRJC 203 or EDUC 211 or ENEC 210 or ENGL 232 or ENGL 233 or (ETCE 101/102/103) or ETCE 200 or GEOG 270 or HCM 200 or HIST 211 or PHIL 120 or PHIL 212 or PHIL 250 or PNUR 210 or POLI 150 or SPTM 210 or SWRK 220</i>		3		

Notes

- UNIV 101-UNIV 102 required for all first-time students; UNIV 110 required for transfer students with fewer than 30 transfer credits. Students do not earn credit if requirement is waived. UNIV 111 may be required based on academic performance
- Not required for students with 60+ transfer credits. Students do not earn credit if requirement is waived
- MATH 121 may be required based on profile scores. Some core courses require a one-hour lab.
- At least one natural science class must include its associated lab. Some majors require two lab sciences, increasing requirement to 8 credits
- Not required for students with 30 or more transfer credits from a foreign institution. Students do not earn credit if requirement is waived.

Bachelor of Science in Chemistry with Materials Science Concentration Program Requirements (81 Credits)	Course	Cr.	Term	Grade
Chemistry Courses (38 Credits) <i>BICH 411 and CHEM 200 and CHEM 211 and CHEM 211L and CHEM 223 and CHEM 223L and CHEM 225 and CHEM 225L and CHEM 311 and CHEM 311L and CHEM 313 and CHEM 313L and CHEM 314 and CHEM 314L and CHEM 350 and CHEM 421 and CHEM 450 and CHEM 499</i>	BICH 411	3		
	CHEM 200	1		
	CHEM 211	3		
	CHEM 211L	1		
	CHEM 223	3		
	CHEM 223L	1		
	CHEM 225	3		
	CHEM 225L	1		
	CHEM 311	3		
	CHEM 311L	2		
	CHEM 313	3		
	CHEM 313L	1		
	CHEM 314	3		
	CHEM 314L	1		
	CHEM 350	1		
	CHEM 421	3		
	CHEM 450	2		
	CHEM 499	3		
Correlative Requirement Courses (25 Credits) <i>BIOL 150 and BIOL 150L and MATH 142 and MATH 241 and MATH 242 and NSCI 100 and PHYS 125 and PHYS 125L and PHYS 126 and PHYS 126L</i>	BIOL 150	3		
	BIOL 150L	1		
	MATH 142	4		
	MATH 241	4		
	MATH 242	4		
	NSCI 100	1		
	PHYS 125	3		
	PHYS 125L	1		
	PHYS 126	3		
PHYS 126L	1			
Concentration (18 Credits) <i>MATS 160 and MATS 204 and MATS 260 and MATS 301 and MATS 311 and MATS 321</i>	MATS 160	3		
	MATS 204	3		
	MATS 260	3		
	MATS 301	3		
	MATS 311	3		
	MATS 321	3		
Total Credits		120		

Other Program Requirements

- Any first-year student interested in graduating with a B.S. in Chemistry degree can enter Fayetteville State University as a pre-chemistry major. Students with a grade of "C" or higher in CHEM 161 and with cumulative GPA of 2.0 or better may be admitted into the Bachelor of Science in Chemistry program.
- Students must have a grade of "C" or higher in all courses and a cumulative GPA of 2.0 or higher in order to graduate.

Four-Year Plan

This Plan illustrates how students can meet degree course requirements in four years. Some courses listed below may be taken in an alternate order. Courses fulfilling requirements are listed on the previous pages. For information about prerequisites and other program requirements, consult the appropriate Catalog Program of Study and an advisor. Students should work with advisor to create and update an individual plan in Degree Works.

Year 1 Fall		
Requirement	Course	Cr
Core – Written Communication	ENGL 110	3
Core – Quantitative Reasoning	MATH 131	3
Program – Correlative Requirement	NSCI 100	1
Core – University Studies	UNIV 101	1
Core – Critical Thinking		3
Core – Humanities and Creative Arts		3
Core – Transitional Studies – Life Skills		2
Total:		16

Year 1 Spring		
Requirement	Course	Cr
Program – Correlative Requirement	BIOL 150	3
Program – Correlative Requirement	BIOL 150L	1
Core – Scientific Literacy	CHEM 141	3
Core – Scientific Literacy	CHEM 141L	1
Core – Information Literacy	ENGL 120	3
Core – University Studies	UNIV 102	1
Core – Global Literacy		3
Total:		15

Year 2 Fall		
Requirement	Course	Cr
Core – Scientific Literacy	CHEM 161	3
Core – Scientific Literacy	CHEM 161L	1
Program – Correlative Requirement	MATH 142	4
Program – Concentration	MATS 160	3
Core – Oral Communication		3
Core – Social Sciences		3
Total:		17

Year 2 Spring		
Requirement	Course	Cr
Program – Chemistry Courses	CHEM 200	1
Program – Chemistry Courses	CHEM 223	3
Program – Chemistry Courses	CHEM 223L	1
Program – Correlative Requirement	MATH 241	4
Program – Concentration	MATS 204	3
Core – Ethics & Civic Engagement		3
Total:		15

Year 3 Fall		
Requirement	Course	Cr
Program – Chemistry Courses	CHEM 211	3
Program – Chemistry Courses	CHEM 211L	1
Program – Chemistry Courses	CHEM 225	3
Program – Chemistry Courses	CHEM 225L	1
Program – Correlative Requirement	MATH 242	4
Program – Correlative Requirement	PHYS 125	3
Program – Correlative Requirement	PHYS 125L	1
Total:		16

Year 3 Spring		
Requirement	Course	Cr
Program – Chemistry Courses	BICH 411	3
Program – Chemistry Courses	CHEM 311	3
Program – Chemistry Courses	CHEM 311L	2
Program – Chemistry Courses	CHEM 350	1
Program – Correlative Requirement	PHYS 126	3
Program – Correlative Requirement	PHYS 126L	1
Program – Concentration	MATS 260	3
Total:		16

Year 4 Fall		
Requirement	Course	Cr
Program – Chemistry Courses	CHEM 313	3
Program – Chemistry Courses	CHEM 313L	1
Program – Chemistry Courses	CHEM 421	3
Program – Chemistry Courses	CHEM 450	2
Program – Concentration	MATS 301	3
Total:		12

Year 4 Spring		
Requirement	Course	Cr
Program – Chemistry Courses	CHEM 314	3
Program – Chemistry Courses	CHEM 314L	1
Program – Chemistry Courses	CHEM 499	3
Program – Concentration	MATS 311	3
Program – Concentration	MATS 321	3
Total:		13

Notes

- * Indicates a course recommended by the program. Other courses listed under the requirement may be used.