

Fayetteville State University

Chemistry with a concentration in Materials Science, BS

Four-Year Degree Plan

Catalog: 2018-2019

Type: Community College Transfer - AS

Last Update: 10/17/2018

This Plan illustrates how students who earn an Associate's degree from a NC community college can meet degree course requirements in four years. Some courses listed below may be taken in an alternate order. Consider prerequisites, prior credit, course availability, and student needs in developing the individual plan. Courses fulfilling requirements are listed on the reverse. For information about prerequisites and other program requirements, consult the appropriate Catalog Program of Study and an advisor.

Year/Term	Course/Requirement	Cr	Pre	Req	Note/Equivalent
Year 1 Fall	Community College	15			
	ACA 122 - College Transfer Success	1	C	1.1	UNIV 110
	ENG 111 - Writing and Inquiry	3	C	2.1	ENGL 110
	UGETC: Comm/Hum	3	C	2.2	Humn Creative Arts
	MAT 171 - Precalculus Algebra	4	C	3.22	MATH 129
	BIO 111 - General Biology I	4	C	9.11	BIOL 150

Year 2 Fall	Community College	16			
	UGETC: Comm/Hum - COM 231*	3	C	2.2	SPEE 200
	CHM 152 - General Chemistry II	4	C	5.12	CHEM 161
	UGETC: Soc/Behav Sci	3	C	5.2	Social Sci
	MAT 271 - Calculus I	4	C	8.2	MATH 142
	EGR 150 - Intro to Engineering	2	C	9.11	ENGR 101

Year 3 Fall	Fayetteville State	17			
	CHEM 200 - Chem Lit Search and Analysis	2	Y	9.1	
	CHEM 211 - Analytical Chemistry Lecture	3	Y	9.1	
	CHEM 211L - Analytical Chemistry Lab	1	Y	9.1	
	CHEM 225 - Organic Chemistry II	3	Y	9.1	
	CHEM 225L - Organic Chemistry II Lab	1	Y	9.1	
	MATH 242 - Calculus w/ Anal Geom III	4	Y	9.2	MAT 273
	MATS 160 - Introduction to Materials Science	3	Y	10	

Year 4 Fall	Fayetteville State	15			
	CHEM 313 - Physical Chemistry I	3	Y	9.1	
	CHEM 313L - Physical Chemistry I Lab	1	Y	9.1	
	CHEM 421 - Inorganic Chemistry	3	Y	9.1	
	CHEM 491 - Research II	2	Y	9.1	
	MATS 260 - Introduction to Nanomaterials	3	Y	10	
	MATS 301 - Introduction to Polymer Science	3	Y	10	

Degree Total: 122

Year/Term	Course/Requirement	Cr	Pre	Req	Note/Equivalent
Year 1 Spring	Community College	14			
	ENG 112 - Writing/Research in the Disc	3	C	2.1	ENGL 120
	MAT 172 - Precalculus Trigonometry	4	C	3.22	MATH 130
	CHM 151 - General Chemistry I	4	C	5.12	CHEM 141
	UGETC: Soc/Behav Sci	3	C	5.2	Social Sci

Year 2 Spring	Community College	16			
	MAT 152 - Statistical Methods I	4	C	8.2	STAT 202
	MAT 272 - Calculus II	4	C	8.2	MATH 241
	CHM 251 - Organic Chemistry I	4	C	9.11	CHEM 223T
	PHY 251 - General Physics I	4	C	9.11	PHYS 121

Year 3 Spring	Fayetteville State	16			
	BICH 411 - Biochemistry I	3	Y	9.1	CHM 271
	CHEM 311 - Instrumental Analysis Lecture	3	Y	9.1	
	CHEM 311L - Instrumental Analysis Lab	2	Y	9.1	
	CHEM 390 - Research I	1	N	9.1	
	PHYS 126 - College Physics II	3	Y	9.2	PHY 252
	PHYS 126L - College Physics Lab II	1	Y	9.2	
	MATS 204 - Properties of Engineering Materials	3	Y	10	

Year 4 Spring	Fayetteville State	13			
	CHEM 314 - Physical Chemistry II	3	Y	9.1	
	CHEM 314L - Physical Chemistry II Lab	1	Y	9.1	
	CHEM 499 - Chemistry Capstone	3	Y	9.1	
	MATS 311 - Scanning Electron Microscopy and Microanalysis	3	Y	10	
	MATS 321 - X-Ray Diffraction Analysis	3	Y	10	

Requirements/Notes

Pre. Prerequisite: Y (Yes) - Course/Requirement has prerequisite(s). N (No) - Course/Requirement has no prerequisite. C (Check) - Some courses satisfying requirement have prerequisites and/or courses have non-prerequisite restrictions. Check Catalog for details.

* Recommended. For transfer courses, following recommendations will reduce or eliminate the need to take additional courses at FSU. For FSU courses, following recommendations will optimize the student's educational experience. If in doubt, consult an advisor.

UGETC. Universal General Education Transfer Component course. Accepted as satisfying a general education requirement at any UNC institution.

1.1. Transfer Success. ACA 122 .

2.1. UGETC: English Comp. ENG 111 Or ENG 112 .

2.2. UGETC: Comm/Hum. COM 231 Or ART 111 Or ART 114 Or Art 115 Or ENG 231 Or ENG 232 Or ENG 241 Or ENG 242 Or MUS 110 Or MUS 112 Or PHI 215 Or PHI 240 .

3.22. UGETC: Math. MAT 171 Or MAT 172 Or MAT 263 Or MAT 271 Or MAT 272 .

5.12. UGETC: Natural Sci. AST 151 And AST 151A Or BIO 110 Or BIO 111 And BIO 112 Or CHM 151 And CHM 152 Or GEL 111 Or PHY 110 And PHY 110A Or PHY 151 And PHY 152 Or PHY 251 And PHY 252 .

5.2. UGETC: Soc/Behav Sci .

8.2. GEN ED: Addl .

9.1. Chemistry Courses. 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 390 And CHEM 421 And CHEM 491 And CHEM 499.

9.11. Pre-Maj/Elec .

9.2. Correlative Requirements. BIOL 150 And BIOL 150L And MATH 130 And MATH 142 And MATH 241 And MATH 242 And PHYS 125 And PHYS 125L And PHYS 126 And PHYS 126L .

10. Concentration. MATS 160 And MATS 204 And MATS 260 And MATS 301 And MATS 311 And MATS 321 .